

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	E	2,06E+11		6,68044E+29									
2	Dados para cálculo para aplicação da metodologia da Curva Mestra com temperatura - 60°C												
3	E	206		206		E	206		E	206		E	2,06E+11
4	b_0	0,01		0,02		b_0	0,04		b_0	0,08		b_0	0,16
5	σ_{ys}	506000000		506000		σ_{ys}	506000		σ_{ys}	506000		σ_{ys}	506000000
6	M	30		30		M	30		M	30		M	30
7													
8	$E*b_0*\sigma_{ys}$	34745333,33		69490,66667		$E*b_0*\sigma_{ys}$	138981,3333		$E*b_0*\sigma_{ys}$	277962,67		$E*b_0*\sigma_{ys}$	5,55925E+17
9	$K_{JC(limite)}$	5894,517226		263,6108243		$K_{JC(limite)}$	372,8020029		$K_{JC(limite)}$	527,22165		$K_{JC(limite)}$	745604005,7
10													
11	Temperatura			-60		Temperatura	-60		Temperatura	-60		Temperatura	-60
12	Espessura	0,5		1 pol		Espessura	2 pol		Espessura	4 pol		Espessura	8 pol
13	Dados para cálculo para aplicação da metodologia da Curva Mestra com temperatura - 91°C												
14	E	206		206		E	206		E	206		E	206
15	b_0	0,02		0,04		b_0	0,08		b_0	0,16		b_0	0,16
16	σ_{ys}	538000		538000		σ_{ys}	538000		σ_{ys}	538000		σ_{ys}	538000
17	M	30		30		M	30		M	30		M	30
18													
19	$E*b_0*\sigma_{ys}$	73885,33333		147770,67		$E*b_0*\sigma_{ys}$	295541,33		$E*b_0*\sigma_{ys}$	591082,6667		$E*b_0*\sigma_{ys}$	591082,6667
20	$K_{JC(limite)}$	271,8185669		384,4095		$K_{JC(limite)}$	543,63713		$K_{JC(limite)}$	768,8190077		$K_{JC(limite)}$	768,8190077
21													
22	Temperatura	-91		-91		Temperatura	-91		Temperatura	-91		Temperatura	-91
23	Espessura	1 pol		2 pol		Espessura	4 pol		Espessura	8 pol		Espessura	8 pol
24													
25													
26	Dados para cálculo para aplicação da metodologia da Curva Mestra com temperatura - 40°C												
27	E	206		206		E	206		E	206		E	206
28	b_0	0,02		0,04		b_0	0,08		b_0	0,16		b_0	0,16
29	σ_{ys}	504000		504000		σ_{ys}	504000		σ_{ys}	504000		σ_{ys}	504000
30	M	30		30		M	30		M	30		M	30
31													
32	$E*b_0*\sigma_{ys}$	69216		138432		$E*b_0*\sigma_{ys}$	276864		$E*b_0*\sigma_{ys}$	276864		$E*b_0*\sigma_{ys}$	276864
33	$K_{JC(limite)}$	263,0893384		372,06451		$K_{JC(limite)}$	526,17868		$K_{JC(limite)}$	526,17868		$K_{JC(limite)}$	526,17868

	A	B	C	D	E	F	G	H	I	J	K	L	M
34													
35	Temperatura	-91		Temperatura	-91		Temperatura	-91					
36	Espessura	1 pol		Espessura	2 pol		Espessura	4 pol					
37													
38													
39	Dados para cálculo para aplicação da metodologia da Curva Mestre com temperatura - 20°C												
40	E	206		E	206		E	206		E	206		
41	b ₀	0,02		b ₀	0,04		b ₀	0,08		b ₀	0,16		
42	σ _{ys}	475000		σ _{ys}	475000		σ _{ys}	475000		σ _{ys}	475000		
43	M	30		M	30		M	30		M	30		
44													
45	E*b ₀ *σ _{ys}	65233,33333		E*b ₀ *σ _{ys}	130466,67		E*b ₀ *σ _{ys}	260933,33		E*b ₀ *σ _{ys}	521866,6667		
46	K _{JC(limite)}	255,4081701		K _{JC(limite)}	361,2017		K _{JC(limite)}	510,81634		K _{JC(limite)}	722,4033961		
47													
48	Temperatura	-91		Temperatura	-91		Temperatura	-91		Temperatura	-91		
49	Espessura	1 pol		Espessura	2 pol		Espessura	4 pol		Espessura	8 pol		
50													
51	Para M = 40												
52													
53	E	2,06E+11		6,68044E+29									
54	Dados para cálculo para aplicação da metodologia da Curva Mestre com temperatura - 60°C												
55	E	206		206		E	206		E	206		E	206
56	b ₀	0,01		0,02		b ₀	0,04		b ₀	0,08		b ₀	0,16
57	σ _{ys}	506000000		506000		σ _{ys}	506000		σ _{ys}	506000		σ _{ys}	506000
58	M	40		40		M	40		M	40		M	40
59													
60	E*b ₀ *σ _{ys}	26059000		52118		E*b ₀ *σ _{ys}	104236		E*b ₀ *σ _{ys}	208472		E*b ₀ *σ _{ys}	416944
61	K _{JC(limite)}	5104,801661		228,2936705		K _{JC(limite)}	322,8560051		K _{JC(limite)}	456,58734		K _{JC(limite)}	645,7120101
62													
63	Temperatura			-60		Temperatura	-60		Temperatura	-60		Temperatura	-60
64	Espessura	0,5		1 pol		Espessura	2 pol		Espessura	4 pol		Espessura	8 pol
65	Dados para cálculo para aplicação da metodologia da Curva Mestre com temperatura - 91°C												
66	E	206		E	206		E	206		E	206		

	A	B	C	D	E	F	G	H	I	J	K	L	M
67	b_0	0,02	b_0	0,04			b_0	0,08		b_0	0,16		
68	σ_{ys}	538000	σ_{ys}	538000			σ_{ys}	538000		σ_{ys}	538000		
69	M	40	M	40			M	40		M	40		
70													
71	$E*b_0*\sigma_{ys}$	55414	$E*b_0*\sigma_{ys}$	110828			$E*b_0*\sigma_{ys}$	221656		$E*b_0*\sigma_{ys}$	443312		
72	$K_{JC(limite)}$	235,4017842	$K_{JC(limite)}$	332,9084			$K_{JC(limite)}$	470,80357		$K_{JC(limite)}$	665,8167916		
73													
74	Temperatura	-91	Temperatura	-91			Temperatura	-91		Temperatura	-91		
75	Espessura	1 pol	Espessura	2 pol			Espessura	4 pol		Espessura	8 pol		
76													
77													
78	Dados para cálculo para aplicação da metodologia da Curva Mestre com temperatura - 40°C												
79	E	206	E	206			E	206					
80	b_0	0,02	b_0	0,04			b_0	0,08					
81	σ_{ys}	504000	σ_{ys}	504000			σ_{ys}	504000					
82	M	40	M	40			M	40					
83													
84	$E*b_0*\sigma_{ys}$	51912	$E*b_0*\sigma_{ys}$	103824			$E*b_0*\sigma_{ys}$	207648					
85	$K_{JC(limite)}$	227,8420506	$K_{JC(limite)}$	322,21732			$K_{JC(limite)}$	455,6841					
86													
87	Temperatura	-91	Temperatura	-91			Temperatura	-91					
88	Espessura	1 pol	Espessura	2 pol			Espessura	4 pol					
89													
90													
91	Dados para cálculo para aplicação da metodologia da Curva Mestre com temperatura - 20°C												
92	E	206	E	206			E	206		E	206		
93	b_0	0,02	b_0	0,04			b_0	0,08		b_0	0,16		
94	σ_{ys}	475000	σ_{ys}	475000			σ_{ys}	475000		σ_{ys}	475000		
95	M	40	M	40			M	40		M	40		
96													
97	$E*b_0*\sigma_{ys}$	48925	$E*b_0*\sigma_{ys}$	97850			$E*b_0*\sigma_{ys}$	195700		$E*b_0*\sigma_{ys}$	391400		
98	$K_{JC(limite)}$	221,1899636	$K_{JC(limite)}$	312,80985			$K_{JC(limite)}$	442,37993		$K_{JC(limite)}$	625,6196928		
99													
100	Temperatura	-91	Temperatura	-91			Temperatura	-91		Temperatura	-91		

	A	B	C	D	E	F	G	H	I	J	K	L	M
134	Dados para cálculo para aplicação da metodologia da Curva Mestra com temperatura - 40°C												
135	E	206	E	206	E	206	E	206					
136	b_0	0,02	b_0	0,04	b_0	0,08	b_0	0,16					
137	σ_{ys}	504000	σ_{ys}	504000	σ_{ys}	504000	σ_{ys}	504000					
138	M	50	M	50	M	50	M	50					
139													
140	$E*b_0*\sigma_{ys}$	41529,6	$E*b_0*\sigma_{ys}$	83059,2	$E*b_0*\sigma_{ys}$	166118,4	$E*b_0*\sigma_{ys}$	332236,8					
141	$K_{JC(limite)}$	203,7881253	$K_{JC(limite)}$	288,19993	$K_{JC(limite)}$	407,57625	$K_{JC(limite)}$	570,80675					
142													
143	Temperatura	-91	Temperatura	-91	Temperatura	-91	Temperatura	-91					
144	Espessura	1 pol	Espessura	2 pol	Espessura	4 pol	Espessura	8 pol					
145													
146													
147	Dados para cálculo para aplicação da metodologia da Curva Mestra com temperatura - 20°C												
148	E	206	E	206	E	206	E	206	E	206			
149	b_0	0,02	b_0	0,04	b_0	0,08	b_0	0,16	b_0	0,32			
150	σ_{ys}	475000	σ_{ys}	475000	σ_{ys}	475000	σ_{ys}	475000	σ_{ys}	475000			
151	M	50	M	50	M	50	M	50	M	50			
152													
153	$E*b_0*\sigma_{ys}$	39140	$E*b_0*\sigma_{ys}$	78280	$E*b_0*\sigma_{ys}$	156560	$E*b_0*\sigma_{ys}$	313120	$E*b_0*\sigma_{ys}$	626240			
154	$K_{JC(limite)}$	197,8383178	$K_{JC(limite)}$	279,78563	$K_{JC(limite)}$	395,67664	$K_{JC(limite)}$	570,80675	$K_{JC(limite)}$	807,12946			
155													
156	Temperatura	-91	Temperatura	-91	Temperatura	-91	Temperatura	-91	Temperatura	-91			
157	Espessura	1 pol	Espessura	2 pol	Espessura	4 pol	Espessura	8 pol	Espessura	16 pol			
158													
159													
160	Para M = 60												
161													
162	E	2,06E+11		6,68044E+29									
163	Dados para cálculo para aplicação da metodologia da Curva Mestra com temperatura - 60°C												
164	E	206		206		E	206		E	206		E	206
165	b_0	0,01		0,02		b_0	0,04		b_0	0,08		b_0	0,16
166	σ_{ys}	506000		506000		σ_{ys}	506000		σ_{ys}	506000		σ_{ys}	506000

	A	B	C	D	E	F	G	H	I	J	K	L	M
167	M	60		60		M	60		M	60		M	60
168													
169	$E \cdot b_0 \cdot \sigma_{ys}$	17372,66667		34745,33333		$E \cdot b_0 \cdot \sigma_{ys}$	69490,66667		$E \cdot b_0 \cdot \sigma_{ys}$	138981,33		$E \cdot b_0 \cdot \sigma_{ys}$	277962,6667
170	$K_{JC(limite)}$	131,8054121		186,4010014		$K_{JC(limite)}$	263,6108243		$K_{JC(limite)}$	372,802		$K_{JC(limite)}$	527,2216485
171													
172	Temperatura			-60		Temperatura	-60		Temperatura	-60		Temperatura	-60
173	Espessura	0,5		1 pol		Espessura	2 pol		Espessura	4 pol		Espessura	8 pol
174	Dados para cálculo para aplicação da metodologia da Curva Mestra com temperatura - 91°C												
175	E	206		E	206		E	206		E	206		
176	b_0	0,02		b_0	0,04		b_0	0,08		b_0	0,16		
177	σ_{ys}	538000		σ_{ys}	538000		σ_{ys}	538000		σ_{ys}	538000		
178	M	60		M	60		M	60		M	60		
179													
180	$E \cdot b_0 \cdot \sigma_{ys}$	36942,66667		$E \cdot b_0 \cdot \sigma_{ys}$	73885,333		$E \cdot b_0 \cdot \sigma_{ys}$	147770,67		$E \cdot b_0 \cdot \sigma_{ys}$	295541,3333		
181	$K_{JC(limite)}$	192,2047519		$K_{JC(limite)}$	271,81857		$K_{JC(limite)}$	384,4095		$K_{JC(limite)}$	543,6371339		
182													
183	Temperatura	-91		Temperatura	-91		Temperatura	-91		Temperatura	-91		
184	Espessura	1 pol		Espessura	2 pol		Espessura	4 pol		Espessura	8 pol		
185													
186													
187	Dados para cálculo para aplicação da metodologia da Curva Mestra com temperatura - 40°C												
188	E	206		E	206		E	206					
189	b_0	0,02		b_0	0,04		b_0	0,08					
190	σ_{ys}	504000		σ_{ys}	504000		σ_{ys}	504000					
191	M	60		M	60		M	60					
192													
193	$E \cdot b_0 \cdot \sigma_{ys}$	34608		$E \cdot b_0 \cdot \sigma_{ys}$	69216		$E \cdot b_0 \cdot \sigma_{ys}$	138432					
194	$K_{JC(limite)}$	186,0322553		$K_{JC(limite)}$	263,08934		$K_{JC(limite)}$	372,06451					
195													
196	Temperatura	-91		Temperatura	-91		Temperatura	-91					
197	Espessura	1 pol		Espessura	2 pol		Espessura	4 pol					
198													
199													
200	Dados para cálculo para aplicação da metodologia da Curva Mestra com temperatura - 20°C												

	A	B	C	D	E	F	G	H	I	J	K	L	M
201	E	206	E	206	206	E	206	206	E	206	206		
202	b_0	0,02	b_0	0,04	0,04	b_0	0,08	0,08	b_0	0,16	0,16		
203	σ_{ys}	475000	σ_{ys}	475000	475000	σ_{ys}	475000	475000	σ_{ys}	475000	475000		
204	M	60	M	60	60	M	60	60	M	60	60		
205													
206	$E*b_0*\sigma_{ys}$	32616,66667	$E*b_0*\sigma_{ys}$	65233,333	65233,333	$E*b_0*\sigma_{ys}$	130466,67	130466,67	$E*b_0*\sigma_{ys}$	260933,3333	260933,3333		
207	$K_{JC(limite)}$	180,600849	$K_{JC(limite)}$	255,40817	255,40817	$K_{JC(limite)}$	361,2017	361,2017	$K_{JC(limite)}$	510,8163401	510,8163401		
208													
209	Temperatura	-91	Temperatura	-91	-91	Temperatura	-91	-91	Temperatura	-91	-91		
210	Espessura	1 pol	Espessura	2 pol	2 pol	Espessura	4 pol	4 pol	Espessura	8 pol	8 pol		

Pol	Temp	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 0	Conv Pol	Mult	Mult + 0	Kjc-04	r-0,3068	kjc-204 / r-0,3068
25	-91	19,9	0,020	4.099,400	64,03	Válido					16805080,36	109,6932	153200,7486
25	-91	21,3	0,021	4.387,800	66,24	Válido					19252788,84	109,6932	175514,88
25	-91	23,1	0,023	4.758,600	68,98	Válido					22644273,96	109,6932	206432,7958
25	-91	23,7	0,024	4.882,200	69,87	Válido					23835876,84	109,6932	217295,8473
25	-91	29,1	0,291	5.994,600	77,42	Válido					35935229,16	109,6932	327597,6009
25	-91	29,4	0,029	6.056,400	77,82	Válido					36679980,96	109,6932	334387,0081
25	-91	38,6	0,039	7.951,600	89,17	Válido					63227942,56	109,6932	576407,1297
25	-91	39,7	0,040	8.178,200	90,43	Válido					66882955,24	109,6932	609727,4511
25	-91	42,3	0,042	8.713,800	93,35	Válido					75930310,44	109,6932	692206,1754
25	-91	46,3	0,046	9.537,800	97,66	Válido					90969628,84	109,6932	829309,6458
25	-91	47,3	0,473	9.743,800	98,71	Válido					94941638,44	109,6932	865519,8175
25	-91	48,9	0,489	10.073,400	100,37	Válido					101473387,6	109,6932	925065,433
25	-91	51,4	0,514	10.588,400	102,90	Válido					112114214,6	109,6932	1022070,781
25	-91	52	0,052	10.712,000	103,50	Válido					114746944	109,6932	1046071,625
25	-91	55,9	0,056	11.515,400	107,31	Válido					132604437,2	109,6932	1208866,522
25	-91	56,6	0,566	11.659,600	107,98	Válido					135946272,2	109,6932	1239331,811
25	-91	59,4	0,594	12.236,400	110,62	Válido					149729485	109,6932	1364984,201
25	-91	63,3	0,063	13.039,800	114,19	Válido					170036384	109,6932	1550108,704
25	-91	68,5	0,069	14.111,000	118,79	Válido					199120321	109,6932	1815247,627
25	-91	70,2	0,070	14.461,200	120,25	Válido					209126305,4	109,6932	1906465,537
25	-91	70,6	0,071	14.543,600	120,60	Válido					211516301	109,6932	1928253,538
25	-91	71,4	0,071	14.708,400	121,28	Válido					216337030,6	109,6932	1972200,925
25	-91	76	0,076	15.656,000	125,12	Válido					245110336	109,6932	2234508,028
25	-91	76,5	0,077	15.759,000	125,53	Válido					248346081	109,6932	2264006,164
25	-91	76,6	0,766	15.779,600	125,62	Válido					248995776,2	109,6932	2269929,003
25	-91	76,8	0,077	15.820,800	125,78	Válido					250297712,6	109,6932	2281797,893
25	-91	77	0,077	15.862,000	125,94	Válido					251603044	109,6932	2293697,731
25	-91	77,2	0,077	15.903,200	126,11	Válido					252911770,2	109,6932	2305628,519
25	-91	93,9	0,939	19.343,400	139,08	Válido					374167123,6	109,6932	3411032,986
25	-91	112,8	0,113	23.236,800	152,44	Válido					539948874,2	109,6932	4922355,025
25	-91	124,3	0,124	25.605,800	160,02	Válido					655656993,6	109,6932	5977189,048
50	-91	14,9	0,149	3.069,400	55,40	Válido	55,40	1,189207	65,88	65,88	18842432,72	109,6932	171773,936
50	-91	18,3	0,183	3.769,800	61,40	Válido	61,40	1,189207	73,02	73,02	28422784,08	109,6932	259111,6321
50	-91	18,8	0,188	3.872,800	62,23	Válido	62,23	1,189207	74,01	74,01	29997159,68	109,6932	273464,1681
50	-91	20,2	0,202	4.161,200	64,51	Válido	64,51	1,189207	76,71	76,71	34631170,88	109,6932	315709,3683
50	-91	22,4	0,224	4.614,400	67,93	Válido	67,93	1,189207	80,78	80,78	42585374,72	109,6932	388222,5582
50	-91	24,6	0,246	5.067,600	71,19	Válido	71,19	1,189207	84,66	84,66	51361139,52	109,6932	468225,3733

Pol	Temp	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 0	Conv Pol	Mult	Mult + 0	Kjc-04	r-0,3068	kjc-204 / r-0,3068
50	-91	27,7	0,277	5.706,200	75,54	Válido	75,54	1,189207	89,83	89,83	65121436,88	109,6932	593668,859
50	-91	30,2	0,302	6.221,200	78,87	Válido	78,87	1,189207	93,80	93,80	77406658,88	109,6932	705665,0629
50	-91	30,4	0,304	6.262,400	79,14	Válido	79,14	1,189207	94,11	94,11	78435307,52	109,6932	715042,5689
50	-91	30,6	0,306	6.303,600	79,40	Válido	79,40	1,189207	94,42	94,42	79470745,92	109,6932	724481,9726
50	-91	31,7	0,317	6.530,200	80,81	Válido	80,81	1,189207	96,10	96,10	85287024,08	109,6932	777505,115
50	-91	34,3	0,343	7.065,800	84,06	Válido	84,06	1,189207	99,96	99,96	99851059,28	109,6932	910275,7443
50	-91	41,5	0,415	8.549,000	92,46	Válido	92,46	1,189207	109,96	109,96	146170802	109,6932	1332542,054
50	-91	41,6	0,416	8.569,600	92,57	Válido	92,57	1,189207	110,09	110,09	146876088,3	109,6932	1338971,68
50	-91	45,3	0,453	9.331,800	96,60	Válido	96,60	1,189207	114,88	114,88	174164982,5	109,6932	1587746,392
50	-91	46,1	0,461	9.496,600	97,45	Válido	97,45	1,189207	115,89	115,89	180370823,1	109,6932	1644320,916
50	-91	46,5	0,465	9.579,000	97,87	Válido	97,87	1,189207	116,39	116,39	183514482	109,6932	1672979,565
50	-91	47,3	0,473	9.743,800	98,71	Válido	98,71	1,189207	117,39	117,39	189883276,9	109,6932	1731039,635
50	-91	48,7	0,487	10.032,200	100,16	Válido	100,16	1,189207	119,11	119,11	201290073,7	109,6932	1835027,82
50	-91	52,7	0,527	10.856,200	104,19	Válido	104,19	1,189207	123,91	123,91	235714156,9	109,6932	2148849,308
50	-91	54,6	0,546	11.247,600	106,05	Válido	106,05	1,189207	126,12	126,12	253017011,5	109,6932	2306587,934
50	-91	55,6	0,556	11.453,600	107,02	Válido	107,02	1,189207	127,27	127,27	262369905,9	109,6932	2391852,056
50	-91	57,4	0,574	11.824,400	108,74	Válido	108,74	1,189207	129,31	129,31	279632870,7	109,6932	2549227,032
50	-91	58,7	0,587	12.092,200	109,96	Válido	109,96	1,189207	130,77	130,77	292442601,7	109,6932	2666004,836
50	-91	59,1	0,591	12.174,600	110,34	Válido	110,34	1,189207	131,22	131,22	296441770,3	109,6932	2702462,599
50	-91	67	0,670	13.802,000	117,48	Válido	117,48	1,189207	139,71	139,71	380990408	109,6932	3473236,336
50	-91	75,7	0,757	15.594,200	124,88	Válido	124,88	1,189207	148,50	148,50	486358147,3	109,6932	4433803,985
50	-91	76,2	0,762	15.697,200	125,29	Válido	125,29	1,189207	148,99	148,99	492804175,7	109,6932	4492568,142
50	-91	78,6	0,786	16.191,600	127,25	Válido	127,25	1,189207	151,32	151,32	524335821,1	109,6932	4780021,197
50	-91	81	0,810	16.686,000	129,17	Válido	129,17	1,189207	153,61	153,61	556845192	109,6932	5076387,524
50	-91	86	0,860	17.716,000	133,10	Válido	133,10	1,189207	158,29	158,29	627713312	109,6932	5722445,074
50	-91	86,5	0,865	17.819,000	133,49	Válido	133,49	1,189207	158,74	158,74	635033522	109,6932	5789178,563
50	-91	100,5	1,005	20.703,000	143,89	Válido	143,89	1,189207	171,11	171,11	857228418	109,6932	7814781,755
50	-91	117,8	1,178	24.266,800	155,78	Válido	155,78	1,189207	185,25	185,25	1177755164	109,6932	10736811,07
100	-91	19,6	0,196	4.037,600	63,54	Válido	63,54	1,414214	89,86	89,86	65208855,04	109,6932	594465,7922
100	-91	19,7	0,197	4.058,200	63,70	Válido	63,70	1,414214	90,09	90,09	65875948,96	109,6932	600547,2441
100	-91	21,6	0,216	4.449,600	66,71	Válido	66,71	1,414214	94,34	94,34	79195760,64	109,6932	721975,1146
100	-91	23,3	0,233	4.799,800	69,28	Válido	69,28	1,414214	97,98	97,98	92152320,16	109,6932	840091,4565
100	-91	25,4	0,254	5.232,400	72,34	Válido	72,34	1,414214	102,30	102,30	109512039	109,6932	998348,4759
100	-91	25,9	0,259	5.335,400	73,04	Válido	73,04	1,414214	103,30	103,30	113865972,6	109,6932	1038040,395
100	-91	27,7	0,277	5.706,200	75,54	Válido	75,54	1,414214	106,83	106,83	130242873,8	109,6932	1187337,718
100	-91	29,5	0,295	6.077,000	77,96	Válido	77,96	1,414214	110,25	110,25	147719716	109,6932	1346662,473
100	-91	32	0,320	6.592,000	81,19	Válido	81,19	1,414214	114,82	114,82	173817856	109,6932	1584581,87

Pol	Temp	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 0	Conv Pol	Mult	Mult + 0	Kjc-04	r-0,3068	kjc-204 / r-0,3068	
100	-91	32,1	0,321	6.612,600	81,32	Válido	81,32	1,414214	115,00	115,00	174905915	109,6932	1594500,981	
100	-91	32,9	0,329	6.777,400	82,32	Válido	82,32	1,414214	116,43	116,43	183732603	109,6932	1674968,029	
100	-91	33	0,330	6.798,000	82,45	Válido	82,45	1,414214	116,60	116,60	184851216	109,6932	1685165,68	
100	-91	33,4	0,334	6.880,400	82,95	Válido	82,95	1,414214	117,31	117,31	189359616,6	109,6932	1726265,773	
100	-91	35,8	0,358	7.374,800	85,88	Válido	85,88	1,414214	121,45	121,45	217550700,2	109,6932	1983265,145	
100	-91	35,9	0,359	7.395,400	86,00	Válido	86,00	1,414214	121,62	121,62	218767764,6	109,6932	1994360,313	
100	-91	37,6	0,376	7.745,600	88,01	Válido	88,01	1,414214	124,46	124,46	239977277,4	109,6932	2187713,344	
100	-91	39,6	0,396	8.157,600	90,32	Válido	90,32	1,414214	127,73	127,73	266185751	109,6932	2426638,58	
100	-91	40,1	0,401	8.260,600	90,89	Válido	90,89	1,414214	128,53	128,53	272950049,4	109,6932	2488304,192	
100	-91	40,6	0,406	8.363,600	91,45	Válido	91,45	1,414214	129,33	129,33	279799219,8	109,6932	2550743,527	
100	-91	41,1	0,411	8.466,600	92,01	Válido	92,01	1,414214	130,13	130,13	286733262,2	109,6932	2613956,583	
100	-91	41,3	0,413	8.507,800	92,24	Válido	92,24	1,414214	130,44	130,44	289530643,4	109,6932	2639458,447	
100	-91	41,3	0,413	8.507,800	92,24	Válido	92,24	1,414214	130,44	130,44	289530643,4	109,6932	2639458,447	
100	-91	42,3	0,423	8.713,800	93,35	Válido	93,35	1,414214	132,01	132,01	303721241,8	109,6932	2768824,702	
100	-91	42,7	0,427	8.796,200	93,79	Válido	93,79	1,414214	132,64	132,64	309492537,8	109,6932	2821437,772	
100	-91	45,6	0,456	9.393,600	96,92	Válido	96,92	1,414214	137,07	137,07	352958883,8	109,6932	3217691,56	
100	-91	46,6	0,466	9.599,600	97,98	Válido	97,98	1,414214	138,56	138,56	368609280,6	109,6932	3360365,826	
100	-91	47,6	0,476	9.805,600	99,02	Válido	99,02	1,414214	140,04	140,04	384599165,4	109,6932	3506134,979	
100	-91	49,2	0,492	10.135,200	100,67	Válido	100,67	1,414214	142,37	142,37	410889116,2	109,6932	3745802,987	
100	-91	53,7	0,537	11.062,200	105,18	Válido	105,18	1,414214	148,74	148,74	489489075,4	109,6932	4462346,575	
100	-91	126,4	1,264	26.038,400	161,36	Válido	161,36	1,414214	228,20	228,20	2711993098	109,6932	24723438,63	
200	-91	13,8	0,138	2.842,800	53,32	Válido	53,32	1,681793	89,67	89,67	64652094,72	109,6932	589390,1784	
200	-91	20,4	0,204	4.202,400	64,83	Válido	64,83	1,681793	109,02	109,02	141281326,1	109,6932	1287967,951	
200	-91	23	0,230	4.738,000	68,83	Válido	68,83	1,681793	115,76	115,76	179589152	109,6932	1637194,94	
200	-91	23,2	0,232	4.779,200	69,13	Válido	69,13	1,681793	116,27	116,27	182726021,1	109,6932	1665791,691	
200	-91	25,4	0,254	5.232,400	72,34	Válido	72,34	1,681793	121,65	121,65	219024078,1	109,6932	1996696,952	
200	-91	25,6	0,256	5.273,600	72,62	Válido	72,62	1,681793	122,13	122,13	222486855,7	109,6932	2028264,794	
200	-91	25,8	0,258	5.314,800	72,90	Válido	72,90	1,681793	122,61	122,61	225976792,3	109,6932	2060080,227	
200	-91	30,2	0,302	6.221,200	78,87	Válido	78,87	1,681793	132,65	132,65	309626635,5	109,6932	2822660,252	
200	-91	33,9	0,339	6.983,400	83,57	Válido	83,57	1,681793	140,54	140,54	390143004,5	109,6932	3556674,475	
200	-91	36,9	0,369	7.601,400	87,19	Válido	87,19	1,681793	146,63	146,63	462250255,7	109,6932	4214028,36	
200	-91	38,8	0,388	7.992,800	89,40	Válido	89,40	1,681793	150,36	150,36	511078814,7	109,6932	4659165,88	
200	-91	40,9	0,409	8.425,400	91,79	Válido	91,79	1,681793	154,37	154,37	567898921,3	109,6932	5177157,028	
200	-91	44,6	0,446	9.187,600	95,85	Válido	95,85	1,681793	161,20	161,20	675295950,1	109,6932	6156224,361	
200	-91	44,8	0,448	9.228,800	96,07	Válido	96,07	1,681793	161,56	161,56	681365995,5	109,6932	6211560,931	
200	-91	50,7	0,507	10.444,200	102,20	Válido	102,20	1,681793	171,87	171,87	872650509,1	109,6932	7955374,71	
Total de Válidos						110						Soma dos K0		271197527,4

Pol	Temp	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 0	Conv Pol	Mult	Mult + 0	Kjc-04	r-0,3068	kjc-204 / r-0,3068
Total de Censurados						0						Somatoria ^{1/4}	128,3280016
												anterior + 0	128,3280016
												Kjc Médio	117,0864687
												-30	87,0864687
												/70	1,24409241
												Ln	0,218406276
												T-T0	11,49472231
25	-60	34	34.000,000	7.004,000	83,6899	Válido					49056016	120,6932	406452,1945
25	-60	40,2	40.200,000	8.281,200	91,0011	Válido					68578273,44	120,6932	568203,291
25	-60	46,9	46.900,000	9.661,400	98,29242	Válido					93342649,96	120,6932	773387,8127
25	-60	52	52.000,000	10.712,000	103,4988	Válido					114746944	120,6932	950732,4688
25	-60	54,2	54.200,000	11.165,200	105,6655	Válido					124661691	120,6932	1032880,817
25	-60	56,1	56.100,000	11.556,600	107,5016	Válido					133555003,6	120,6932	1106566,099
25	-60	62,3	62.300,000	12.833,800	113,2864	Válido					164706422,4	120,6932	1364670,275
25	-60	67,4	67.400,000	13.884,400	117,8321	Válido					192776563,4	120,6932	1597244,612
25	-60	68	68.000,000	14.008,000	118,3554	Válido					196224064	120,6932	1625808,778
25	-60	69	69.000,000	14.214,000	119,2225	Válido					202037796	120,6932	1673978,285
25	-60	74,6	74.600,000	15.367,600	123,9661	Válido					236163129,8	120,6932	1956722,746
25	-60	78,2	78.200,000	16.109,200	126,922	Válido					259506324,6	120,6932	2150132,109
25	-60	81,3	81.300,000	16.747,800	129,4133	Válido					280488804,8	120,6932	2323981,839
25	-60	81,4	81.400,000	16.768,400	129,4929	Válido					281179238,6	120,6932	2329702,407
25	-60	82,3	82.300,000	16.953,800	130,2068	Válido					287431334,4	120,6932	2381503,966
25	-60	90	90.000,000	18.540,000	136,1617	Válido					343731600	120,6932	2847978,179
25	-60	90,4	90.400,000	18.622,400	136,4639	Válido					346793781,8	120,6932	2873349,797
25	-60	100,3	100.300,000	20.661,800	143,7421	Válido					426909979,2	120,6932	3537150,223
25	-60	112,2	112.200,000	23.113,200	152,0303	Válido					534220014,2	120,6932	4426264,398
25	-60	120,3	120.300,000	24.781,800	157,4224	Válido					614137611,2	120,6932	5088419,325
25	-60	123,4	123.400,000	25.420,400	159,4378	Válido					646196736,2	120,6932	5354044,272
25	-60	127,4	127.400,000	26.244,400	162,0012	Válido					688768531,4	120,6932	5706771,644
25	-60	129	129.000,000	26.574,000	163,0153	Válido					706177476	120,6932	5851012,949
25	-60	140,9	140.900,000	29.025,400	170,3684	Válido					842473845,2	120,6932	6980292,553
25	-60	141,9	141.900,000	29.231,400	170,9719	Válido					854474746	120,6932	7079725,668
25	-60	142,5	142.500,000	29.355,000	171,333	Válido					861716025	120,6932	7139723,075
25	-60	143,1	143.100,000	29.478,600	171,6933	Válido					868987858	120,6932	7199973,635
25	-60	191,8	191.800,000	39.510,800	198,7732	Válido					1561103317	120,6932	12934476,15
25	-60	193,2	193.200,000	39.799,200	199,4974	Válido					1583976321	120,6932	13123989,76
25	-60	261	261.000,000	53.766,000	231,875	Válido					2890782756	120,6932	23951496,49

Pol	Temp	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 0	Conv Pol	Mult	Mult + 0	Kjc-04	r-0,3068	kjc-204 / r-0,3068
25	-60	284,9	284.900,000	58.689,400	242,259	Válido					3444445672	120,6932	28538854,49
50	-60	46,7	46.700,000	9.620,200	98,08262	Válido	98,08261824	1,189207	116,6405475	116,6405	185096496,1	120,6932	1533611,637
50	-60	48	48.000,000	9.888,000	99,43842	Válido	99,43842316	1,189207	118,2528803	118,2529	195545088	120,6932	1620183,142
50	-60	49,9	49.900,000	10.279,400	101,3874	Válido	101,3873759	1,189207	120,5705888	120,5706	211332128,7	120,6932	1750986,209
50	-60	52,9	52.900,000	10.897,400	104,3906	Válido	104,3906126	1,189207	124,1420592	124,1421	237506653,5	120,6932	1967854,473
50	-60	59,4	59.400,000	12.236,400	110,6183	Válido	110,6182625	1,189207	131,5480248	131,548	299458969,9	120,6932	2481158,59
50	-60	63,1	63.100,000	12.998,600	114,0114	Válido	114,0114029	1,189207	135,5831716	135,5832	337927203,9	120,6932	2799886,024
50	-60	68,1	68.100,000	14.028,600	118,4424	Válido	118,4423911	1,189207	140,8525342	140,8525	393603235,9	120,6932	3261188,169
50	-60	68,2	68.200,000	14.049,200	118,5293	Válido	118,5293213	1,189207	140,9559122	140,9559	394760041,3	120,6932	3270772,846
50	-60	69,2	69.200,000	14.255,200	119,3951	Válido	119,3951423	1,189207	141,9855527	141,9856	406421454,1	120,6932	3367393,143
50	-60	75,1	75.100,000	15.470,600	124,3809	Válido	124,3808667	1,189207	147,9146116	147,9146	478678928,7	120,6932	3966080,349
50	-60	76,2	76.200,000	15.697,200	125,2885	Válido	125,2884671	1,189207	148,9939366	148,9939	492804175,7	120,6932	4083114,672
50	-60	76,5	76.500,000	15.759,000	125,5349	Válido	125,5348557	1,189207	149,2869436	149,2869	496692162	120,6932	4115328,469
50	-60	80,6	80.600,000	16.603,600	128,855	Válido	128,8549572	1,189207	153,2352319	153,2352	551359065,9	120,6932	4568269,512
50	-60	81,9	81.900,000	16.871,400	129,89	Válido	129,8899534	1,189207	154,4660568	154,4661	569288275,9	120,6932	4716821,461
50	-60	82,9	82.900,000	17.077,400	130,6805	Válido	130,6805265	1,189207	155,4062119	155,4062	583275181,5	120,6932	4832709,56
50	-60	86,1	86.100,000	17.736,600	133,1788	Válido	133,1788271	1,189207	158,3772088	158,3772	629173959,1	120,6932	5213002,548
50	-60	86,2	86.200,000	17.757,200	133,2561	Válido	133,2561443	1,189207	158,4691549	158,4692	630636303,7	120,6932	5225118,761
50	-60	94,4	94.400,000	19.446,400	139,4503	Válido	139,4503496	1,189207	165,8353479	165,8353	756324945,9	120,6932	6266508,353
50	-60	95,1	95.100,000	19.590,600	139,9664	Válido	139,9664245	1,189207	166,4490679	166,4491	767583216,7	120,6932	6359788,428
50	-60	96,8	96.800,000	19.940,800	141,2119	Válido	141,2118975	1,189207	167,9301932	167,9302	795271009,3	120,6932	6589194,829
50	-60	97	97.000,000	19.982,000	141,3577	Válido	141,3577023	1,189207	168,1035853	168,1036	798560648	120,6932	6616451,035
50	-60	98,6	98.600,000	20.311,600	142,5188	Válido	142,5187707	1,189207	169,4843361	169,4843	825122189,1	120,6932	6836525,911
50	-60	109,7	109.700,000	22.598,200	150,327	Válido	150,326977	1,189207	178,7699106	178,7699	1021357286	120,6932	8462426,106
50	-60	112,9	112.900,000	23.257,400	152,5038	Válido	152,5037704	1,189207	181,3585689	181,3586	1081813310	120,6932	8963332,727
50	-60	127,4	127.400,000	26.244,400	162,0012	Válido	162,0012346	1,189207	192,6530208	192,653	1377537063	120,6932	11413543,29
50	-60	129,1	129.100,000	26.594,600	163,0785	Válido	163,0785087	1,189207	193,9341229	193,9341	1414545498	120,6932	11720175,6
50	-60	129,9	129.900,000	26.759,400	163,583	Válido	163,5830065	1,189207	194,5340752	194,5341	1432130977	120,6932	11865879,57
50	-60	142,3	142.300,000	29.313,800	171,2127	Válido	171,2127332	1,189207	203,6074005	203,6074	1718597741	120,6932	14239391,62
50	-60	147,4	147.400,000	30.364,400	174,2538	Válido	174,2538378	1,189207	207,2239038	207,2239	1843993575	120,6932	15278355,16
50	-60	147,8	147.800,000	30.446,800	174,4901	Válido	174,4901143	1,189207	207,5048855	207,5049	1854015260	120,6932	15361389,54
50	-60	163,2	163.200,000	33.619,200	183,3554	Válido	183,3553926	1,189207	218,0475375	218,0475	2260501217	120,6932	18729317,12
50	-60	164,7	164.700,000	33.928,200	184,1961	Válido	184,1960912	1,189207	219,0473022	219,0473	2302245510	120,6932	19075188,25
50	-60	176,8	176.800,000	36.420,800	190,8423	Válido	190,8423433	1,189207	226,9510725	226,9511	2652949345	120,6932	21980934,68
50	-60	198	198.000,000	40.788,000	201,9604	Válido	201,9603922	1,189207	240,1727353	240,1727	3327321888	120,6932	27568428,78
100	-60	30,4	30.400,000	6.262,400	79,13533	Válido	79,13532713	1,414214	111,9142529	111,9143	156870615	120,6932	1299746,921

Pol	Temp	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 0	Conv Pol	Mult	Mult + 0	Kjc-04	r-0,3068	kjc-204 / r-0,3068
100	-60	57,5	57.500,000	11.845,000	108,8347	Válido	108,8347371	1,414214	153,9155613	153,9156	561216100	120,6932	4649939,682
100	-60	63,3	63.300,000	13.039,800	114,1919	Válido	114,1919437	1,414214	161,4917955	161,4918	680145536,2	120,6932	5635326,068
100	-60	64	64.000,000	13.184,000	114,8216	Válido	114,8216008	1,414214	162,382265	162,3823	695271424	120,6932	5760651,172
100	-60	68,5	68.500,000	14.111,000	118,7897	Válido	118,7897302	1,414214	167,9940475	167,994	796481284	120,6932	6599222,525
100	-60	82,8	82.800,000	17.056,800	130,6017	Válido	130,6016845	1,414214	184,6986735	184,6987	1163737705	120,6932	9642114,924
100	-60	86,1	86.100,000	17.736,600	133,1788	Válido	133,1788271	1,414214	188,3433036	188,3433	1258347918	120,6932	10426005,1
100	-60	88,3	88.300,000	18.189,800	134,8696	Válido	134,8695666	1,414214	190,7343703	190,7344	1323475296	120,6932	10965616,09
100	-60	89,4	89.400,000	18.416,400	135,707	Válido	135,7070374	1,414214	191,9187328	191,9187	1356655156	120,6932	11240526,86
100	-60	94,5	94.500,000	19.467,000	139,5242	Válido	139,5241915	1,414214	197,3170038	197,317	1515856356	120,6932	12559583,77
100	-60	102,2	102.200,000	21.053,200	145,0972	Válido	145,0972088	1,414214	205,1984405	205,1984	1772948921	120,6932	14689716,74
100	-60	106,3	106.300,000	21.897,800	147,9791	Válido	147,9790526	1,414214	209,2739831	209,274	1918054579	120,6932	15891985,46
100	-60	107,7	107.700,000	22.186,200	148,9503	Válido	148,9503273	1,414214	210,647573	210,6476	1968909882	120,6932	16313345,59
100	-60	112,3	112.300,000	23.133,800	152,098	Válido	152,0979947	1,414214	215,099047	215,099	2140690810	120,6932	17736631,47
100	-60	113	113.000,000	23.278,000	152,5713	Válido	152,5712948	1,414214	215,7683943	215,7684	2167461136	120,6932	17958436,23
100	-60	115,5	115.500,000	23.793,000	154,2498	Válido	154,2497974	1,414214	218,1421555	218,1422	2264427396	120,6932	18761847,36
100	-60	128,1	128.100,000	26.388,600	162,4457	Válido	162,4456832	1,414214	229,7328884	229,7329	2785432840	120,6932	23078622,82
100	-60	131,1	131.100,000	27.006,600	164,3368	Válido	164,3368492	1,414214	232,4074009	232,4074	2917425774	120,6932	24172246,44
100	-60	132,7	132.700,000	27.336,200	165,3366	Válido	165,3366263	1,414214	233,8212993	233,8213	2989071322	120,6932	24765863,54
100	-60	150,2	150.200,000	30.941,200	175,9011	Válido	175,9011086	1,414214	248,7617334	248,7617	3829431430	120,6932	31728642,79
100	-60	153,5	153.500,000	31.621,000	177,8229	Válido	177,8229457	1,414214	251,4796214	251,4796	3999550564	120,6932	33138159,93
100	-60	160,8	160.800,000	33.124,800	182,0022	Válido	182,0021978	1,414214	257,3899765	257,39	4389009500	120,6932	36365010,62
100	-60	168,9	168.900,000	34.793,400	186,5299	Válido	186,5298904	1,414214	263,7931007	263,7931	4842322734	120,6932	40120924,25
100	-60	191,9	191.900,000	39.531,400	198,825	Válido	198,8250487	1,414214	281,1810804	281,1811	6250926344	120,6932	51791868,5
100	-60	225,7	225.700,000	46.494,200	215,6251	Válido	215,6251377	1,414214	304,9399941	304,94	8646842535	120,6932	71643162,45
100	-60	230	230.000,000	47.380,000	217,6695	Válido	217,6694742	1,414214	307,8311225	307,8311	8979457600	120,6932	74399034,91
100	-60	241,9	241.900,000	49.831,400	223,2295	Válido	223,2294783	1,414214	315,6941558	315,6942	9932673704	120,6932	82296879,23
100	-60	265,4	265.400,000	54.672,400	233,8213	Válido	233,8212993	1,414214	330,6732526	330,6733	11956285287	120,6932	99063454,17
100	-60	282,6	282.600,000	58.215,600	241,2791	Válido	241,2790915	1,414214	341,2201635	341,2202	13556224333	120,6932	112319702,6
100	-60	415,3	415.300,000	85.551,800	292,4924	Válido	292,4923931	1,414214	413,6467092	413,6467	29276441933	120,6932	242569108,6
25	-60	38,4	38.400,000	7.910,400	88,94043	Válido					62574428,16	120,6932	518458,6055
25	-60	46,1	46.100,000	9.496,600	97,4505	Válido					90185411,56	120,6932	747228,6058
25	-60	55	55.000,000	11.330,000	106,4425	Válido					128368900	120,6932	1063596,789
25	-60	63,6	63.600,000	13.101,600	114,4622	Válido					171651922,6	120,6932	1422217,014
25	-60	64,1	64.100,000	13.204,600	114,9113	Válido					174361461,2	120,6932	1444666,818
25	-60	77,7	77.700,000	16.006,200	126,5156	Válido					256198438,4	120,6932	2122724,714
25	-60	78,7	78.700,000	16.212,200	127,3271	Válido					262835428,8	120,6932	2177715,305
25	-60	87,8	87.800,000	18.086,800	134,4872	Válido					327132334,2	120,6932	2710445,445

Pol	Temp	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 0	Conv Pol	Mult	Mult + 0	Kjc-04	r-0,3068	kjc-204 / r-0,3068	
25	-60	89,1	89.100,000	18.354,600	135,4791	Válido					336891341,2	120,6932	2791303,414	
25	-60	116,3	116.300,000	23.957,800	154,7831	Válido					573976180,8	120,6932	4755662,961	
25	-60	128,7	128.700,000	26.512,200	162,8257	Válido					702896748,8	120,6932	5823830,579	
25	-60	129	129.000,000	26.574,000	163,0153	Válido					706177476	120,6932	5851012,949	
25	-60	131,7	131.700,000	27.130,200	164,7125	Válido					736047752	120,6932	6098502,252	
25	-60	133,7	133.700,000	27.542,200	165,9584	Válido					758572780,8	120,6932	6285132,724	
25	-60	133,7	133.700,000	27.542,200	165,9584	Válido					758572780,8	120,6932	6285132,724	
25	-60	140,7	140.700,000	28.984,200	170,2475	Válido					840083849,6	120,6932	6960490,315	
25	-60	150,4	150.400,000	30.982,400	176,0182	Válido					959909109,8	120,6932	7953299,024	
25	-60	164,6	164.600,000	33.907,600	184,1402	Válido					1149725338	120,6932	9526015,863	
25	-60	166,1	166.100,000	34.216,600	184,9773	Válido					1170775716	120,6932	9700428,156	
25	-60	176	176.000,000	36.256,000	190,4101	Válido					1314497536	120,6932	10891231,12	
25	-60	197,6	197.600,000	40.705,600	201,7563	Válido					1656945871	120,6932	13728576,85	
25	-60	200,2	200.200,000	41.241,200	203,0793	Válido					1700836577	120,6932	14092232,02	
25	-60	217,1	217.100,000	44.722,600	211,4772	Válido					2000110951	120,6932	16571861,14	
25	-60	219,5	219.500,000	45.217,000	212,6429	Válido					2044577089	120,6932	16940284,03	
25	-60	234,5	234.500,000	48.307,000	219,7885	Válido					2333566249	120,6932	19334695,32	
25	-60	275,9	275.900,000	56.835,400	238,4018	Válido					3230262693	120,6932	26764247,64	
25	-60	369,1	369.100,000	76.034,600	275,7437	Censurado					0	120,6932	2,184139821	
25	-60	373,6	373.600,000	76.961,600	277,4195	Censurado					0	120,6932	2,184139821	
25	-60	427,1	427.100,000	87.982,600	296,6186	Censurado					0	120,6932	2,184139821	
25	-60	678,2	678.200,000	139.709,200	373,7769	Censurado					0	120,6932	2,184139821	
25	-60	687,7	687.700,000	141.666,200	376,3857	Censurado					0	120,6932	2,184139821	
						Total de Válidos	121						<i>Soma dos K0</i>	1771120181
						Total de Censurados	5						<i>Somatoria ^1/4</i>	205,1455062
											anterior + 0	205,1455062		
											Kjc Médio	187,1747598		
											Kjc Médio-30	157,1747598		
											-70	2,245353712		
											LN	0,808863064		
											T - T0	42,57046306		
25	-40	61,6		12.689,600	112,6481	Válido					161025948,2	76,6932	2099611,806	
25	-40	113,2		23.319,200	152,7063	Válido					543785088,6	76,6932	7090395,089	
25	-40	136,6		28.139,600	167,7486	Válido					791837088,2	76,6932	10324736,59	
25	-40	139,3		28.695,800	169,3983	Válido					823448937,6	76,6932	10736922,41	
25	-40	155,4		32.012,400	178,9201	Válido					1024793754	76,6932	13362250,55	
25	-40	165,5		34.093,000	184,6429	Válido					1162332649	76,6932	15155615,48	

Pol	Temp	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 0	Conv Pol	Mult	Mult + 0	Kjc-04	r-0,3068	kjc-204 / r-0,3068
25	-40	195,2		40.211,200	200,5273	Válido					1616940605	76,6932	21083233
25	-40	203,4		41.900,400	204,6959	Válido					1755643520	76,6932	22891775,54
25	-40	233,2		48.039,200	219,1785	Válido					2307764737	76,6932	30090865,12
25	-40	251		51.706,000	227,3895	Válido					2673510436	76,6932	34859810,73
25	-40	254,5		52.427,000	228,9694	Válido					2748590329	76,6932	35838774,87
25	-40	264,8		54.548,800	233,5568	Válido					2975571581	76,6932	38798375,62
25	-40	275,9		56.835,400	238,4018	Válido					3230262693	76,6932	42119284,28
25	-40	283		58.298,000	241,4498	Válido					3398656804	76,6932	44314969,31
25	-40	311,7		64.210,200	253,3973	Válido					4122949784	76,6932	53759000,59
25	-40	349,2		71.935,200	268,2074	Censurado					0	76,6932	3,430412845
25	-40	483,2		99.539,200	315,4983	Censurado					0	76,6932	3,430412845
25	-40	548,6		113.011,600	336,172	Censurado					0	76,6932	3,430412845
25	-40	562,8		115.936,800	340,4949	Censurado					0	76,6932	3,430412845
25	-40	619,9		127.699,400	357,3505	Censurado					0	76,6932	3,430412845
25	-40	758,7		156.292,200	395,3381	Censurado					0	76,6932	3,430412845
25	-40	773,9		159.423,400	399,2786	Censurado					0	76,6932	3,430412845
25	-40	1127,9		232.347,400	482,0243	Censurado					0	76,6932	3,430412845
25	-40	1174		241.844,000	491,7764	Censurado					0	76,6932	3,430412845
25	-40	1337,1		275.442,600	524,8263	Censurado					0	76,6932	3,430412845
25	-40	1337,2		275.463,200	524,8459	Censurado					0	76,6932	3,430412845
25	-40	1433,6		295.321,600	543,435	Censurado					0	76,6932	3,430412845
25	-40	1544,1		318.084,600	563,9899	Censurado					0	76,6932	3,430412845
25	-40	1573,3		324.099,800	569,2976	Censurado					0	76,6932	3,430412845
25	-40	1714,3		353.145,800	594,2607	Censurado					0	76,6932	3,430412845
50	-40	49,1		10.114,600	100,5714	Válido	100,5713677	1,189207	119,600186	119,6002	204610266,3	76,6932	2667906,233
50	-40	50,6		10.423,600	102,096	Válido	102,0960332	1,189207	121,4133291	121,4133	217302873,9	76,6932	2833404,708
50	-40	60,6		12.483,600	111,73	Válido	111,7300318	1,189207	132,8701487	132,8701	311680537,9	76,6932	4063991,826
50	-40	93,8		19.322,800	139,0065	Válido	139,0064747	1,189207	165,3074887	165,3075	746741199,7	76,6932	9736732,848
50	-40	107,4		22.124,400	148,7427	Válido	148,7427309	1,189207	176,8859139	176,8859	978978150,7	76,6932	12764862,47
50	-40	107,5		22.145,000	148,812	Válido	148,8119619	1,189207	176,9682439	176,9682	980802050	76,6932	12788644,23
50	-40	119		24.514,000	156,5695	Válido	156,5694734	1,189207	186,1935318	186,1935	1201872392	76,6932	15671172,83
50	-40	122,7		25.276,200	158,9849	Válido	158,9849049	1,189207	189,0659801	189,066	1277772573	76,6932	16660832,68
50	-40	137,8		28.386,800	168,4838	Válido	168,4838271	1,189207	200,362166	200,3622	1611620828	76,6932	21013868,62
50	-40	139,9		28.819,400	169,7628	Válido	169,7627757	1,189207	201,8831007	201,8831	1661115633	76,6932	21659229,67
50	-40	166,5		34.299,000	185,1999	Válido	185,199892	1,189207	220,2410293	220,241	2352842802	76,6932	30678636,46
50	-40	167		34.402,000	185,4778	Válido	185,4777615	1,189207	220,5714736	220,5715	2366995208	76,6932	30863169,2
50	-40	167		34.402,000	185,4778	Válido	185,4777615	1,189207	220,5714736	220,5715	2366995208	76,6932	30863169,2

Pol	Temp	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 0	Conv Pol	Mult	Mult + 0	Kjc-04	r-0,3068	kjc-204 / r-0,3068
50	-40	168,9		34.793,400	186,5299	Válido	186,5298904	1,189207	221,8226728	221,8227	2421161367	76,6932	31569439,89
50	-40	187		38.522,000	196,2702	Válido	196,2702219	1,189207	233,4059443	233,4059	2967888968	76,6932	38698202,29
50	-40	205,3		42.291,800	205,6497	Válido	205,6497022	1,189207	244,560089	244,5601	3577192694	76,6932	46642892,65
50	-40	210		43.260,000	207,9904	Válido	207,9903844	1,189207	247,343645	247,3436	3742855200	76,6932	48802960,37
50	-40	212,8		43.836,800	209,3724	Válido	209,3723955	1,189207	248,9871424	248,9871	3843330068	76,6932	50113048,73
50	-40	217,1		44.722,600	211,4772	Válido	211,4771855	1,189207	251,4901737	251,4902	4000221902	76,6932	52158755,95
50	-40	219,3		45.175,800	212,546	Válido	212,545995	1,189207	252,7612095	252,7612	4081705811	76,6932	53221221,85
50	-40	245		50.470,000	224,6553	Válido	224,6552915	1,189207	267,1616711	267,1617	5094441800	76,6932	66426251,61
50	-40	251,8		51.870,800	227,7516	Válido	227,7516191	1,189207	270,8438459	270,8438	5381159785	76,6932	70164757,57
50	-40	271,9		56.011,400	236,6673	Válido	236,667277	1,189207	281,4464097	281,4464	6274553860	76,6932	81813692,22
50	-40	272,7		56.176,200	237,0152	Válido	237,0151894	1,189207	281,8601496	281,8601	6311530893	76,6932	82295834,48
50	-40	274,2		56.485,200	237,6662	Válido	237,6661524	1,189207	282,6342794	282,6343	6381155638	76,6932	83203669,14
50	-40	308,7		63.592,200	252,1749	Válido	252,1749393	1,189207	299,888232	299,8882	8087935802	76,6932	105458317,1
50	-40	308,8		63.612,800	252,2158	Válido	252,2157806	1,189207	299,9368008	299,9368	8093176648	76,6932	105526652,3
50	-40	313,1		64.498,600	253,9657	Válido	253,9657457	1,189207	302,0178718	302,0179	8320138804	76,6932	108486004
50	-40	313,1		64.498,600	253,9657	Válido	253,9657457	1,189207	302,0178718	302,0179	8320138804	76,6932	108486004
50	-40	349,4		71.976,400	268,2842	Válido	268,2841777	1,189207	319,045453	319,0455	10361204314	76,6932	135099387,1
50	-40	386,6		79.639,600	282,2049	Válido	282,2048901	1,189207	335,6000632	335,6001	12684931776	76,6932	165398389,6
50	-40	455,2		93.771,200	306,2208	Válido	306,2208353	1,189207	364,1599962	364,16	17586075899	76,6932	229304239,5
100	-40	40		8.240,000	90,77445	Válido	70,77444574	1,414214	100,090181	100,0902	100361212,4	76,6932	1308606,401
100	-40	63,5		13.081,000	114,3722	Válido	94,37219942	1,414214	133,4624443	133,4624	317275325,5	76,6932	4136942,069
100	-40	75,5		15.553,000	124,7117	Válido	104,7116675	1,414214	148,0846603	148,0847	480883962,1	76,6932	6270229,461
100	-40	79,1		16.294,600	127,6503	Válido	107,6503036	1,414214	152,2405193	152,2405	537181474,1	76,6932	7004290,786
100	-40	81		16.686,000	129,1743	Válido	109,1743008	1,414214	154,3957769	154,3958	568252910,6	76,6932	7409430,179
100	-40	86,1		17.736,600	133,1788	Válido	113,1788271	1,414214	160,0590323	160,059	656327721	76,6932	8557834,606
100	-40	91,5		18.849,000	137,2917	Válido	117,2916603	1,414214	165,8754568	165,8755	757056909,6	76,6932	9871239,036
100	-40	92,1		18.972,600	137,7411	Válido	117,7410614	1,414214	166,5110059	166,511	768726367,4	76,6932	10023396,69
100	-40	94,8		19.528,800	139,7455	Válido	119,7454829	1,414214	169,345686	169,3457	822425468,1	76,6932	10723577,42
100	-40	95,6		19.693,600	140,3339	Válido	120,3338876	1,414214	170,1778158	170,1778	838709922,8	76,6932	10935909,87
100	-40	96		19.776,000	140,6272	Válido	120,6271666	1,414214	170,5925751	170,5926	846916315,4	76,6932	11042912,74
100	-40	96,4		19.858,400	140,9198	Válido	120,9198354	1,414214	171,0064711	171,0065	855165516,5	76,6932	11150473,79
100	-40	99,6		20.517,600	143,2397	Válido	123,2396593	1,414214	174,2871976	174,2872	922703031,8	76,6932	12031093,13
100	-40	102,6		21.135,600	145,3809	Válido	125,3808791	1,414214	177,3153396	177,3153	988519482,4	76,6932	12889271,57
100	-40	108,2		22.289,200	149,2957	Válido	129,2956798	1,414214	182,8517039	182,8517	1117882215	76,6932	14576027,79
100	-40	110,9		22.845,400	151,1469	Válido	131,1469484	1,414214	185,469793	185,4698	1183294237	76,6932	15428932,91
100	-40	112,4		23.154,400	152,1657	Válido	132,1656992	1,414214	186,9105242	186,9105	1220492239	76,6932	15913956,38
100	-40	124		25.544,000	159,8249	Válido	139,8249042	1,414214	197,7422759	197,7423	1528967003	76,6932	19936148,23

Pol	Temp	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 0	Conv Pol	Mult	Mult + 0	Kjc-04	r-0,3068	kjc-204 / r-0,3068	
100	-40	141,2		29.087,200	170,5497	Válido	150,5496995	1,414214	212,9094268	212,9094	2054847344	76,6932	26793083,92	
100	-40	142,5		29.355,000	171,333	Válido	151,3330091	1,414214	214,0171939	214,0172	2097947721	76,6932	27355068,26	
100	-40	153,4		31.600,400	177,765	Válido	157,7650134	1,414214	223,1134217	223,1134	2478008469	76,6932	32310667,3	
100	-40	160,5		33.063,000	181,8323	Válido	161,8323404	1,414214	228,8654906	228,8655	2743602882	76,6932	35773743,73	
100	-40	166,8		34.360,800	185,3667	Válido	165,3666637	1,414214	233,8637785	233,8638	2991244059	76,6932	39002728,53	
100	-40	167,8		34.566,800	185,9215	Válido	165,9214888	1,414214	234,6484198	234,6484	3031590484	76,6932	39528804,17	
100	-40	175,4		36.132,400	190,0852	Válido	170,085244	1,414214	240,5368589	240,5369	3347545905	76,6932	43648536,05	
100	-40	186,7		38.460,200	196,1127	Válido	176,1127227	1,414214	249,0610009	249,061	3847892376	76,6932	50172536,49	
100	-40	187,7		38.666,200	196,6372	Válido	176,6372294	1,414214	249,8027655	249,8028	3893937423	76,6932	50772916,29	
100	-40	214,1		44.104,600	210,011	Válido	190,0109521	1,414214	268,7160655	268,7161	5214042031	76,6932	67985714,91	
100	-40	272,3		56.093,800	236,8413	Válido	216,8412971	1,414214	306,6599032	306,6599	8843577316	76,6932	115311100,8	
100	-40	282,2		58.133,200	241,1083	Válido	221,1082744	1,414214	312,6943205	312,6943	9560486057	76,6932	124658849,2	
						Válidos	77						Somatoria	3100185036
						Censurados	15						Somatoria^1/4	235,9646272
											K0	235,9646272		
											Kjc Médio	215,2941258		
											-30	185,2941258		
											/ 70	2,647058941		
											Ln	0,97344919		
											T-T0	51,23263087		
25	-20	78,9		16.253,400	127,4888	Válido					264173011,6	62,6932	4213742,664	
25	-20	102,7		21.156,200	145,4517	Válido					447584798,4	62,6932	7139287,809	
25	-20	258,8		53.312,800	230,8956	Válido					2842254644	62,6932	45335931,87	
25	-20	723,7		149.082,200	386,1116	Censurado					0	62,6932	4,073937366	
25	-20	772,5		159.135,000	398,9173	Censurado					0	62,6932	4,073937366	
25	-20	798,3		164.449,800	405,5241	Censurado					0	62,6932	4,073937366	
25	-20	914,9		188.469,400	434,1306	Censurado					0	62,6932	4,073937366	
25	-20	1133,7		233.542,200	483,262	Censurado					0	62,6932	4,073937366	
25	-20	1340		276.040,000	525,3951	Censurado					0	62,6932	4,073937366	
25	-20	1348,6		277.811,600	527,0784	Censurado					0	62,6932	4,073937366	
25	-20	1361,1		280.386,600	529,5154	Censurado					0	62,6932	4,073937366	
25	-20	1368,5		281.911,000	530,9529	Censurado					0	62,6932	4,073937366	
25	-20	1368,6		281.931,600	530,9723	Censurado					0	62,6932	4,073937366	
25	-20	1371,1		282.446,600	531,4571	Censurado					0	62,6932	4,073937366	
25	-20	1381,3		284.547,800	533,4302	Censurado					0	62,6932	4,073937366	
25	-20	1391		286.546,000	535,2999	Censurado					0	62,6932	4,073937366	
25	-20	1408,2		290.089,200	538,5993	Censurado					0	62,6932	4,073937366	

Pol	Temp	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 0	Conv Pol	Mult	Mult + 0	Kjc-04	r-0,3068	kjc-204 / r-0,3068
25	-20	1436,3		295.877,800	543,9465	Censurado					0	62,6932	4,073937366
25	-20	1459,7		300.698,200	548,3596	Censurado					0	62,6932	4,073937366
25	-20	1472,5		303.335,000	550,7586	Censurado					0	62,6932	4,073937366
25	-20	1473,7		303.582,200	550,9829	Censurado					0	62,6932	4,073937366
25	-20	1480,1		304.900,600	552,1781	Censurado					0	62,6932	4,073937366
25	-20	1496,6		308.299,600	555,2473	Censurado					0	62,6932	4,073937366
25	-20	1497,2		308.423,200	555,3586	Censurado					0	62,6932	4,073937366
25	-20	1499		308.794,000	555,6924	Censurado					0	62,6932	4,073937366
25	-20	1524,5		314.047,000	560,399	Censurado					0	62,6932	4,073937366
25	-20	1547,8		318.846,800	564,6652	Censurado					0	62,6932	4,073937366
25	-20	1553,3		319.979,800	565,6676	Censurado					0	62,6932	4,073937366
25	-20	1554,5		320.227,000	565,886	Censurado					0	62,6932	4,073937366
25	-20	1560,5		321.463,000	566,9771	Censurado					0	62,6932	4,073937366
25	-20	1575		324.450,000	569,6051	Censurado					0	62,6932	4,073937366
50	-20	139		28.634,000	169,2158	Válido	169,2158385	1,189207	201,2326791	201,2327	1639811912	62,6932	26156136,74
50	-20	162		33.372,000	182,68	Válido	182,6800482	1,189207	217,2444131	217,2444	2227380768	62,6932	35528267,31
50	-20	168,1		34.628,600	186,0876	Válido	186,0876138	1,189207	221,2967143	221,2967	2398279876	62,6932	38254226,55
50	-20	180,6		37.203,600	192,8823	Válido	192,8823476	1,189207	229,3770601	229,3771	2768215706	62,6932	44154959,48
50	-20	195,2		40.211,200	200,5273	Válido	200,5273049	1,189207	238,4684977	238,4685	3233881211	62,6932	51582647,1
50	-20	256		52.736,000	229,6432	Válido	229,6432015	1,189207	273,0933291	273,0933	5562171392	62,6932	88720489,49
50	-20	259		53.354,000	230,9848	Válido	230,984848	1,189207	274,6888247	274,6888	5693298632	62,6932	90812059,87
50	-20	291		59.946,000	244,8387	Válido	244,8387224	1,189207	291,1639507	291,164	7187045832	62,6932	114638363,2
50	-20	326,5		67.259,000	259,3434	Válido	259,3434017	1,189207	308,4130185	308,413	9047546162	62,6932	144314633,2
50	-20	328,8		67.732,800	260,2553	Válido	260,2552593	1,189207	309,4974061	309,4974	9175464392	62,6932	146355017,6
50	-20	330		67.980,000	260,7297	Válido	260,7297451	1,189207	310,061668	310,0617	9242560800	62,6932	147425251,9
50	-20	362,3		74.633,800	273,1919	Válido	273,191874	1,189207	324,8817203	324,8817	11140408205	62,6932	177697233,6
50	-20	380		78.280,000	279,7856	Válido	279,7856322	1,189207	332,7230645	332,7231	12255516800	62,6932	195483988,7
50	-20	392		80.752,000	284,169	Válido	284,1689638	1,189207	337,9357536	337,9358	13041771008	62,6932	208025288,4
50	-20	417		85.902,000	293,0904	Válido	293,0904297	1,189207	348,5452244	348,5452	14758307208	62,6932	235405230,7
50	-20	447		92.082,000	303,4502	Válido	303,4501607	1,189207	360,8650901	360,8651	16958189448	62,6932	270494877,4
50	-20	480		98.880,000	314,4519	Censurado	314,4519041	1,189207	373,9484417	373,9484	0	62,6932	5,761417506
50	-20	486,8		100.280,800	316,6714	Censurado	316,6714386	1,189207	376,5879279	376,5879	0	62,6932	5,761417506
50	-20	502		103.412,000	321,5774	Censurado	321,5773624	1,189207	382,4220874	382,4221	0	62,6932	5,761417506
50	-20	512		105.472,000	324,7645	Censurado	324,7645301	1,189207	386,2122899	386,2123	0	62,6932	5,761417506
50	-20	555		114.330,000	338,1272	Censurado	338,127195	1,189207	402,1032661	402,1033	0	62,6932	5,761417506
50	-20	648,8		133.652,800	365,5856	Censurado	365,5855577	1,189207	434,7569464	434,7569	0	62,6932	5,761417506
50	-20	655,6		135.053,600	367,4964	Censurado	367,4963945	1,189207	437,0293271	437,0293	0	62,6932	5,761417506

Pol	Temp	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 0	Conv Pol	Mult	Mult + 0	Kjc-04	r-0,3068	kjc-204 / r-0,3068
50	-20	695		143.170,000	378,3781	Censurado	378,3781178	1,189207	449,9699498	449,9699	0	62,6932	5,761417506
50	-20	807		166.242,000	407,7279	Censurado	407,7278504	1,189207	484,8728607	484,8729	0	62,6932	5,761417506
50	-20	820		168.920,000	410,9988	Censurado	410,9987835	1,189207	488,7626775	488,7627	0	62,6932	5,761417506
50	-20	1017		209.502,000	457,7139	Censurado	457,7138844	1,189207	544,316608	544,3166	0	62,6932	5,761417506
50	-20	1266		260.796,000	510,6819	Censurado	510,6818971	1,189207	607,3065455	607,3065	0	62,6932	5,761417506
50	-20	1582		325.892,000	570,8695	Censurado	570,8695122	1,189207	678,8820857	678,8821	0	62,6932	5,761417506
50	-20	1619		333.514,000	577,5067	Censurado	577,5067099	1,189207	686,7750884	686,7751	0	62,6932	5,761417506
100	-20	58,6		12.071,600	109,8708	Válido	109,8708333	1,414214	155,3808225	155,3808	582894106,2	62,6932	9297565,067
100	-20	74,4		15.326,400	123,7998	Válido	123,7998384	1,414214	175,0794106	175,0794	939594147,8	62,6932	14987178
100	-20	82,8		17.056,800	130,6017	Válido	130,6016845	1,414214	184,6986735	184,6987	1163737705	62,6932	18562423,12
100	-20	100,6		20.723,600	143,9569	Válido	143,956938	1,414214	203,5858541	203,5859	1717870388	62,6932	27401223,54
100	-20	112,2		23.113,200	152,0303	Válido	152,0302601	1,414214	215,0032558	215,0033	2136880057	62,6932	34084718,23
100	-20	123,7		25.482,200	159,6315	Válido	159,6314505	1,414214	225,7529623	225,753	2597370067	62,6932	41429853,12
100	-20	130,8		26.944,800	164,1487	Válido	164,1487131	1,414214	232,1413363	232,1413	2904088988	62,6932	46322232,53
100	-20	133,4		27.480,400	165,7721	Válido	165,7721328	1,414214	234,4371984	234,4372	3020689537	62,6932	48182092,1
100	-20	186,1		38.336,600	195,7973	Válido	195,7973442	1,414214	276,8992597	276,8993	5878779598	62,6932	93770609,86
100	-20	188,4		38.810,400	197,0036	Válido	197,0035533	1,414214	278,6050969	278,6051	6024988593	62,6932	96102744,68
100	-20	191,7		39.490,200	198,7214	Válido	198,721413	1,414214	281,0345175	281,0345	6237903584	62,6932	99498886,39
100	-20	193		39.758,000	199,3941	Válido	199,3940822	1,414214	281,9858152	281,9858	6322794256	62,6932	100852951,5
100	-20	212,3		43.733,800	209,1263	Válido	209,1262776	1,414214	295,7492181	295,7492	7650581050	62,6932	122032071,3
100	-20	212,5		43.775,000	209,2248	Válido	209,2247595	1,414214	295,8884925	295,8885	7665002500	62,6932	122262103,4
100	-20	223		45.938,000	214,3315	Válido	214,3315189	1,414214	303,1105409	303,1105	8441199376	62,6932	134642981,6
100	-20	224,4		46.226,400	215,0033	Válido	215,0032558	1,414214	304,0605203	304,0605	8547520228	62,6932	136338872,9
100	-20	231,2		47.627,200	218,2366	Válido	218,2365689	1,414214	308,6331155	308,6331	9073400719	62,6932	144727031,3
100	-20	247,3		50.943,800	225,7073	Válido	225,7073326	1,414214	319,1983709	319,1984	10381083034	62,6932	165585470,7
100	-20	288,5		59.431,000	243,7847	Válido	243,7847411	1,414214	344,7636872	344,7637	14128175044	62,6932	225354185,8
100	-20	299,8		61.758,800	248,5132	Válido	248,5131787	1,414214	351,4507078	351,4507	15256597510	62,6932	243353306,4
100	-20	301,3		62.067,800	249,1341	Válido	249,1341004	1,414214	352,3288237	352,3288	15409647187	62,6932	245794554,9
100	-20	315,9		65.075,400	255,0988	Válido	255,0988044	1,414214	360,7641889	360,7642	16939230741	62,6932	270192472,9
100	-20	318,2		65.549,200	256,0258	Válido	256,02578	1,414214	362,0751303	362,0751	17186790483	62,6932	274141222,4
100	-20	324,6		66.867,600	258,5877	Válido	258,5877027	1,414214	365,6982363	365,6982	17885103719	62,6932	285279802,6
100	-20	334,9		68.989,400	262,6583	Válido	262,6583332	1,414214	371,4549771	371,455	19038149249	62,6932	303671678,1
100	-20	371,9		76.611,400	276,7876	Válido	276,7876442	1,414214	391,4368404	391,4368	23477226440	62,6932	374478036,5
100	-20	373,5		76.941,000	277,3824	Válido	277,3824075	1,414214	392,2779627	392,278	23679669924	62,6932	377707150,4
100	-20	384,1		79.124,600	281,291	Válido	281,2909526	1,414214	397,8054801	397,8055	25042809301	62,6932	399450168,4
100	-20	588,7		121.272,200	348,2416	Válido	348,2415828	1,414214	492,4879694	492,488	58827785971	62,6932	938343966,7
100	-20	683,1		140.718,600	375,1248	Censurado	375,1247792	1,414214	530,5065504	530,5066	0	62,6932	8,14787473

Pol	Temp	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 0	Conv Pol	Mult	Mult + 0	Kjc-04	r-0,3068	kjc-204 / r-0,3068
200	-20	112		23.072,000	151,8947	Válido	151,8947004	1,681793	255,4554181	255,4554	4258537472	62,6932	67926624,77
200	-20	117		24.102,000	155,2482	Válido	155,2481884	1,681793	261,0952902	261,0953	4647251232	62,6932	74126878,7
200	-20	125		25.750,000	160,4681	Válido	160,4680654	1,681793	269,8740418	269,874	5304500000	62,6932	84610452,17
200	-20	162		33.372,000	182,68	Válido	182,6800482	1,681793	307,2299953	307,23	8909523072	62,6932	142113069,2
200	-20	162		33.372,000	182,68	Válido	182,6800482	1,681793	307,2299953	307,23	8909523072	62,6932	142113069,2
200	-20	166		34.196,000	184,9216	Válido	184,921605	1,681793	310,9998295	310,9998	9354931328	62,6932	149217639,7
200	-20	168		34.608,000	186,0323	Válido	186,0322553	1,681793	312,8677132	312,8677	9581709312	62,6932	152834905,7
200	-20	175		36.050,000	189,8684	Válido	189,8683755	1,681793	319,3192726	319,3193	10396820000	62,6932	165836486,3
200	-20	179		36.874,000	192,026	Válido	192,0260399	1,681793	322,9480172	322,948	10877535008	62,6932	173504223,9
200	-20	179		36.874,000	192,026	Válido	192,0260399	1,681793	322,9480172	322,948	10877535008	62,6932	173504223,9
200	-20	187		38.522,000	196,2702	Válido	196,2702219	1,681793	330,085852	330,0859	11871555872	62,6932	189359545,7
200	-20	199		40.994,000	202,4698	Válido	202,4697508	1,681793	340,5121753	340,5122	13444064288	62,6932	214442145
200	-20	234		48.204,000	219,5541	Válido	219,5540936	1,681793	369,2445005	369,2445	18589004928	62,6932	296507514,8
200	-20	236		48.616,000	220,4904	Válido	220,4903626	1,681793	370,819111	370,8191	18908123648	62,6932	301597679,6
200	-20	239		49.234,000	221,8874	Válido	221,8873588	1,681793	373,1685692	373,1686	19391894048	62,6932	309314152,9
						Válidos	63					Somatoria	10102594002
						Censurados	43					Somatoria ^{1/4}	317,0357409
										K0	317,0357409		
										Kjc Médio	289,26341		
										-30	259,26341		
										/70	3,703763		
										Ln	1,30934933		
										T-T0	68,91105524		

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc -10	Conv Pol	Mult	Mult + 10	Kjc-10 ⁴	r-0,3068	kjc-10 ⁴ / r-0,3068
25	-91	19,9	4.099,400	64,03	Válido					8519795,423	109,6932	77669,31244
25	-91	21,3	4.387,800	66,24	Válido					10004509,41	109,6932	91204,46306
25	-91	23,1	4.758,600	68,98	Válido					12103078,28	109,6932	110335,7207
25	-91	23,7	4.882,200	69,87	Válido					12850397,94	109,6932	117148,5374
25	-91	29,1	5.994,600	77,42	Válido					20667061,17	109,6932	188407,861
25	-91	29,4	6.056,400	77,82	Válido					21159470,85	109,6932	192896,8327
25	-91	38,6	7.951,600	89,17	Válido					39289893,87	109,6932	358179,8495
25	-91	39,7	8.178,200	90,43	Válido					41854844,06	109,6932	381562,7957
25	-91	42,3	8.713,800	93,35	Válido					48258659,07	109,6932	439942,121
25	-91	46,3	9.537,800	97,66	Válido					59052566,64	109,6932	538343,0025
25	-91	47,3	9.743,800	98,71	Válido					61930387,47	109,6932	564578,1823
25	-91	48,9	10.073,400	100,37	Válido					66684755,1	109,6932	607920,5921
25	-91	51,4	10.588,400	102,90	Válido					74483820,93	109,6932	679019,4919
25	-91	52	10.712,000	103,50	Válido					76422986,32	109,6932	696697,574
25	-91	55,9	11.515,400	107,31	Válido					89665812,35	109,6932	817423,6174
25	-91	56,6	11.659,600	107,98	Válido					92160142,96	109,6932	840162,7718
25	-91	59,4	12.236,400	110,62	Válido					102496079,6	109,6932	934388,6368
25	-91	63,3	13.039,800	114,19	Válido					117851892	109,6932	1074377,372
25	-91	68,5	14.111,000	118,79	Válido					140072086,8	109,6932	1276944,12
25	-91	70,2	14.461,200	120,25	Válido					147770898,7	109,6932	1347129,072
25	-91	70,6	14.543,600	120,60	Válido					149613580,2	109,6932	1363927,574
25	-91	71,4	14.708,400	121,28	Válido					153334631,1	109,6932	1397849,922
25	-91	76	15.656,000	125,12	Válido					175655825	109,6932	1601337,412
25	-91	76,5	15.759,000	125,53	Válido					178177189,9	109,6932	1624323,02
25	-91	76,6	15.779,600	125,62	Válido					178683705,2	109,6932	1628940,584
25	-91	76,8	15.820,800	125,78	Válido					179698978,6	109,6932	1638196,157
25	-91	77	15.862,000	125,94	Válido					180717242,9	109,6932	1647478,995
25	-91	77,2	15.903,200	126,11	Válido					181738498,6	109,6932	1656789,105
25	-91	93,9	19.343,400	139,08	Válido					277615211,2	109,6932	2530833,372
25	-91	112,8	23.236,800	152,44	Válido					411606014,7	109,6932	3752338,474
25	-91	124,3	25.605,800	160,02	Válido					506494718	109,6932	4617375,717
50	-91	14,9	3.069,400	55,40	Válido	45,40	1,189207	53,99	63,99	8498382,721	109,6932	77474,10706
50	-91	18,3	3.769,800	61,40	Válido	51,40	1,189207	61,12	71,12	13958489,85	109,6932	127250,2749
50	-91	18,8	3.872,800	62,23	Válido	52,23	1,189207	62,11	72,11	14885752,24	109,6932	135703,5098
50	-91	20,2	4.161,200	64,51	Válido	54,51	1,189207	64,82	74,82	17654308,55	109,6932	160942,5976
50	-91	22,4	4.614,400	67,93	Válido	57,93	1,189207	68,89	78,89	22522955,05	109,6932	205326,8119
50	-91	24,6	5.067,600	71,19	Válido	61,19	1,189207	72,76	82,76	28032952,19	109,6932	255557,7939
50	-91	27,7	5.706,200	75,54	Válido	65,54	1,189207	77,94	87,94	36901130,67	109,6932	336403,083
50	-91	30,2	6.221,200	78,87	Válido	68,87	1,189207	81,91	91,91	45005537,25	109,6932	410285,5715
50	-91	30,4	6.262,400	79,14	Válido	69,14	1,189207	82,22	92,22	45690939,09	109,6932	416533,9246

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc -10	Conv Pol	Mult	Mult + 10	Kjc-10 ⁴	r-0,3068	kjc-10 ⁴ / r-0,3068
50	-91	30,6	6.303,600	79,40	Válido	69,40	1,189207	82,53	92,53	46381850,55	109,6932	422832,5051
50	-91	31,7	6.530,200	80,81	Válido	70,81	1,189207	84,21	94,21	50280531,23	109,6932	458374,1858
50	-91	34,3	7.065,800	84,06	Válido	74,06	1,189207	88,07	98,07	60162414,48	109,6932	548460,7476
50	-91	41,5	8.549,000	92,46	Válido	82,46	1,189207	98,06	108,06	92474123,53	109,6932	843025,124
50	-91	41,6	8.569,600	92,57	Válido	82,57	1,189207	98,20	108,20	92974538,46	109,6932	847587,0743
50	-91	45,3	9.331,800	96,60	Válido	86,60	1,189207	102,99	112,99	112493254,8	109,6932	1025526,238
50	-91	46,1	9.496,600	97,45	Válido	87,45	1,189207	104,00	114,00	116971265,5	109,6932	1066349,286
50	-91	46,5	9.579,000	97,87	Válido	87,87	1,189207	104,50	114,50	119244751,7	109,6932	1087075,148
50	-91	47,3	9.743,800	98,71	Válido	88,71	1,189207	105,50	115,50	123860774,9	109,6932	1129156,365
50	-91	48,7	10.032,200	100,16	Válido	90,16	1,189207	107,22	117,22	132160715,8	109,6932	1204821,409
50	-91	52,7	10.856,200	104,19	Válido	94,19	1,189207	112,02	122,02	157436770,3	109,6932	1435246,399
50	-91	54,6	11.247,600	106,05	Válido	96,05	1,189207	114,23	124,23	170256823,8	109,6932	1552118,307
50	-91	55,6	11.453,600	107,02	Válido	97,02	1,189207	115,38	125,38	177215544	109,6932	1615556,334
50	-91	57,4	11.824,400	108,74	Válido	98,74	1,189207	117,42	127,42	190109355,8	109,6932	1733100,647
50	-91	58,7	12.092,200	109,96	Válido	99,96	1,189207	118,88	128,88	199716468,8	109,6932	1820682,31
50	-91	59,1	12.174,600	110,34	Válido	100,34	1,189207	119,32	129,32	202722345,5	109,6932	1848084,891
50	-91	67	13.802,000	117,48	Válido	107,48	1,189207	127,82	137,82	266914123,1	109,6932	2433278,663
50	-91	75,7	15.594,200	124,88	Válido	114,88	1,189207	136,61	146,61	348303945,6	109,6932	3175255,582
50	-91	76,2	15.697,200	125,29	Válido	115,29	1,189207	137,10	147,10	353324257,8	109,6932	3221022,432
50	-91	78,6	16.191,600	127,25	Válido	117,25	1,189207	139,43	149,43	377942182,3	109,6932	3445447,688
50	-91	81	16.686,000	129,17	Válido	119,17	1,189207	141,72	151,72	403422806,9	109,6932	3677737,607
50	-91	86	17.716,000	133,10	Válido	123,10	1,189207	146,39	156,39	459285655,9	109,6932	4187002,074
50	-91	86,5	17.819,000	133,49	Válido	123,49	1,189207	146,85	156,85	465078852	109,6932	4239814,793
50	-91	100,5	20.703,000	143,89	Válido	133,89	1,189207	159,22	169,22	642632228,1	109,6932	5858450,917
50	-91	117,8	24.266,800	155,78	Válido	145,78	1,189207	173,36	183,36	903230322,8	109,6932	8234150,547
100	-91	19,6	4.037,600	63,54	Válido	53,54	1,414214	75,72	85,72	32873200,21	109,6932	299683,1181
100	-91	19,7	4.058,200	63,70	Válido	53,70	1,414214	75,95	85,95	33272591,31	109,6932	303324,1013
100	-91	21,6	4.449,600	66,71	Válido	56,71	1,414214	80,19	90,19	41357595,27	109,6932	377029,709
100	-91	23,3	4.799,800	69,28	Válido	59,28	1,414214	83,84	93,84	49398075,43	109,6932	450329,4227
100	-91	25,4	5.232,400	72,34	Válido	62,34	1,414214	88,16	98,16	60394452,65	109,6932	550576,0854
100	-91	25,9	5.335,400	73,04	Válido	63,04	1,414214	89,16	99,16	63187349,82	109,6932	576037,0727
100	-91	27,7	5.706,200	75,54	Válido	65,54	1,414214	92,69	102,69	73802261,33	109,6932	672806,166
100	-91	29,5	6.077,000	77,96	Válido	67,96	1,414214	96,10	106,10	85299916,46	109,6932	777622,6462
100	-91	32	6.592,000	81,19	Válido	71,19	1,414214	100,68	110,68	102745686,6	109,6932	936664,1377
100	-91	32,1	6.612,600	81,32	Válido	71,32	1,414214	100,86	110,86	103479435	109,6932	943353,2346
100	-91	32,9	6.777,400	82,32	Válido	72,32	1,414214	102,28	112,28	109449287,8	109,6932	997776,4149
100	-91	33	6.798,000	82,45	Válido	72,45	1,414214	102,46	112,46	110208016,7	109,6932	1004693,242
100	-91	33,4	6.880,400	82,95	Válido	72,95	1,414214	103,16	113,16	113270744,3	109,6932	1032614,094
100	-91	35,8	7.374,800	85,88	Válido	75,88	1,414214	107,31	117,31	132584488	109,6932	1208684,658
100	-91	35,9	7.395,400	86,00	Válido	76,00	1,414214	107,48	117,48	133424204,2	109,6932	1216339,793

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc -10	Conv Pol	Mult	Mult + 10	Kjc-10 ⁴	r-0,3068	kjc-10 ⁴ / r-0,3068
100	-91	37,6	7.745,600	88,01	Válido	78,01	1,414214	110,32	120,32	148129258,2	109,6932	1350395,998
100	-91	39,6	8.157,600	90,32	Válido	80,32	1,414214	113,59	123,59	166472510,9	109,6932	1517619,241
100	-91	40,1	8.260,600	90,89	Válido	80,89	1,414214	114,39	124,39	171235185,4	109,6932	1561037,379
100	-91	40,6	8.363,600	91,45	Válido	81,45	1,414214	115,19	125,19	176068781,2	109,6932	1605102,06
100	-91	41,1	8.466,600	92,01	Válido	82,01	1,414214	115,99	125,99	180973383,8	109,6932	1649814,061
100	-91	41,3	8.507,800	92,24	Válido	82,24	1,414214	116,30	126,30	182955125,5	109,6932	1667880,283
100	-91	41,3	8.507,800	92,24	Válido	82,24	1,414214	116,30	126,30	182955125,5	109,6932	1667880,283
100	-91	42,3	8.713,800	93,35	Válido	83,35	1,414214	117,87	127,87	193034636,3	109,6932	1759768,484
100	-91	42,7	8.796,200	93,79	Válido	83,79	1,414214	118,49	128,49	197146245	109,6932	1797251,288
100	-91	45,6	9.393,600	96,92	Válido	86,92	1,414214	122,92	132,92	228323479,7	109,6932	2081473,416
100	-91	46,6	9.599,600	97,98	Válido	87,98	1,414214	124,42	134,42	239633436	109,6932	2184578,771
100	-91	47,6	9.805,600	99,02	Válido	89,02	1,414214	125,90	135,90	251231084,9	109,6932	2290306,828
100	-91	49,2	10.135,200	100,67	Válido	90,67	1,414214	128,23	138,23	270387073,6	109,6932	2464939,245
100	-91	53,7	11.062,200	105,18	Válido	95,18	1,414214	134,60	144,60	328237293,1	109,6932	2992321,248
100	-91	126,4	26.038,400	161,36	Válido	151,36	1,414214	214,06	224,06	2099677003	109,6932	19141359,74
200	-91	13,8	2.842,800	53,32	Válido	43,32	1,681793	72,85	82,85	28168267,97	109,6932	256791,3778
200	-91	20,4	4.202,400	64,83	Válido	54,83	1,681793	92,21	102,21	72282592,83	109,6932	658952,3583
200	-91	23	4.738,000	68,83	Válido	58,83	1,681793	98,95	108,95	95846851,05	109,6932	873772,0392
200	-91	23,2	4.779,200	69,13	Válido	59,13	1,681793	99,45	109,45	97807725,15	109,6932	891648,0252
200	-91	25,4	5.232,400	72,34	Válido	62,34	1,681793	104,84	114,84	120788905,3	109,6932	1101152,171
200	-91	25,6	5.273,600	72,62	Válido	62,62	1,681793	105,31	115,31	123007031,9	109,6932	1121373,357
200	-91	25,8	5.314,800	72,90	Válido	62,90	1,681793	105,79	115,79	125246743,1	109,6932	1141791,315
200	-91	30,2	6.221,200	78,87	Válido	68,87	1,681793	115,83	125,83	180022149	109,6932	1641142,286
200	-91	33,9	6.983,400	83,57	Válido	73,57	1,681793	123,72	133,72	234323598,2	109,6932	2136172,508
200	-91	36,9	7.601,400	87,19	Válido	77,19	1,681793	129,81	139,81	283951592,5	109,6932	2588597,949
200	-91	38,8	7.992,800	89,40	Válido	79,40	1,681793	133,54	143,54	317999059,6	109,6932	2898986,077
200	-91	40,9	8.425,400	91,79	Válido	81,79	1,681793	137,55	147,55	358006033,1	109,6932	3263703,065
200	-91	44,6	9.187,600	95,85	Válido	85,85	1,681793	144,39	154,39	434601310,3	109,6932	3961971,301
200	-91	44,8	9.228,800	96,07	Válido	86,07	1,681793	144,75	154,75	438964554,2	109,6932	4001748,095
200	-91	50,7	10.444,200	102,20	Válido	92,20	1,681793	155,06	165,06	578035717,3	109,6932	5269567,46
Total de Válidos					110						Soma dos K0	182915988,8
Total de Censurados					0						Somatoria^{1/4}	116,2955019
											anterior +10	126,2955019
											Kjc Médio	116,1080159
											-30	86,10801592
											/70	1,230114513
											Ln	0,207107265
											T-TO	10,90005537
25	-60	34	7.004,000	83,68990381	Válido					29487092,93	120,6932	244314,4513
25	-60	40,2	8.281,200	91,00109889	Válido					43049057,04	120,6932	356681,7106

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc -10	Conv Pol	Mult	Mult + 10	Kjc-10 ⁴	r-0,3068	kjc-10 ⁴ / r-0,3068
25	-60	46,9	9.661,400	98,29242087	Válido					60770624,48	120,6932	503513,2425
25	-60	52	10.712,000	103,4987923	Válido					76422986,32	120,6932	633200,4315
25	-60	54,2	11.165,200	105,66551	Válido					83757086,92	120,6932	693966,9088
25	-60	56,1	11.556,600	107,5016279	Válido					90374824,53	120,6932	748797,9814
25	-60	62,3	12.833,800	113,2863628	Válido					113807776,1	120,6932	942951,0201
25	-60	67,4	13.884,400	117,8320839	Válido					135204763,6	120,6932	1120235,138
25	-60	68	14.008,000	118,355397	Válido					137848546,4	120,6932	1142140,124
25	-60	69	14.214,000	119,2224811	Válido					142314172,2	120,6932	1179139,937
25	-60	74,6	15.367,600	123,9661244	Válido					168695352,7	120,6932	1397720,441
25	-60	78,2	16.109,200	126,9220233	Válido					186889666,2	120,6932	1548468,897
25	-60	81,3	16.747,800	129,4132914	Válido					203334314,8	120,6932	1684720,554
25	-60	81,4	16.768,400	129,4928569	Válido					203876786,2	120,6932	1689215,186
25	-60	82,3	16.953,800	130,2067587	Válido					208792813,6	120,6932	1729946,787
25	-60	90	18.540,000	136,1616686	Válido					253343459,9	120,6932	2099069,872
25	-60	90,4	18.622,400	136,4639146	Válido					255779941,9	120,6932	2119257,273
25	-60	100,3	20.661,800	143,7421302	Válido					319943244,9	120,6932	2650880,455
25	-60	112,2	23.113,200	152,0302601	Válido					406933580,8	120,6932	3371636,354
25	-60	120,3	24.781,800	157,4223618	Válido					472338622,3	120,6932	3913547,924
25	-60	123,4	25.420,400	159,4377622	Válido					498702357,6	120,6932	4131983,886
25	-60	127,4	26.244,400	162,0012346	Válido					533812158,4	120,6932	4422885,12
25	-60	129	26.574,000	163,0153367	Válido					548201032,4	120,6932	4542103,717
25	-60	140,9	29.025,400	170,3684243	Válido					661417145	120,6932	5480152,527
25	-60	141,9	29.231,400	170,9719275	Válido					671429746,2	120,6932	5563111,643
25	-60	142,5	29.355,000	171,3330091	Válido					677474473,7	120,6932	5613195,057
25	-60	143,1	29.478,600	171,6933313	Válido					683547083,2	120,6932	5663509,487
25	-60	191,8	39.510,800	198,7732376	Válido					1269877118	120,6932	10521529,95
25	-60	193,2	39.799,200	199,4973684	Válido					1289474425	120,6932	10683902,86
25	-60	261	53.766,000	231,8749663	Válido					2423445279	120,6932	20079385,41
25	-60	284,9	58.689,400	242,2589524	Válido					2909978974	120,6932	24110546,2
50	-60	46,7	9.620,200	98,08261824	Válido	88,082618	1,189207	104,7484763	114,7484763	120390122,8	120,6932	997488,8628
50	-60	48	9.888,000	99,43842316	Válido	89,438423	1,189207	106,3608092	116,3608092	127975410,4	120,6932	1060336,542
50	-60	49,9	10.279,400	101,3873759	Válido	91,387376	1,189207	108,6785177	118,6785177	139500198,3	120,6932	1155824,838
50	-60	52,9	10.897,400	104,3906126	Válido	94,390613	1,189207	112,2499881	122,2499881	158761507,7	120,6932	1315413,857
50	-60	59,4	12.236,400	110,6182625	Válido	100,61826	1,189207	119,6559537	129,6559537	204992159,2	120,6932	1698456,576
50	-60	63,1	12.998,600	114,0114029	Válido	104,0114	1,189207	123,6911004	133,6911004	234074342,9	120,6932	1939416,164
50	-60	68,1	14.028,600	118,4423911	Válido	108,44239	1,189207	128,960463	138,960463	276583542,6	120,6932	2291624,902
50	-60	68,2	14.049,200	118,5293213	Válido	108,52932	1,189207	129,063841	139,063841	277471475,5	120,6932	2298981,844
50	-60	69,2	14.255,200	119,3951423	Válido	109,39514	1,189207	130,0934815	140,0934815	286432402,4	120,6932	2373227,343
50	-60	75,1	15.470,600	124,3808667	Válido	114,38087	1,189207	136,0225405	146,0225405	342328870,9	120,6932	2836355,908
50	-60	76,2	15.697,200	125,2884671	Válido	115,28847	1,189207	137,1018654	147,1018654	353324257,8	120,6932	2927457,867

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc -10	Conv Pol	Mult	Mult + 10	Kjc-10 ⁴	r-0,3068	kjc-10 ⁴ / r-0,3068
50	-60	76,5	15.759,000	125,5348557	Válido	115,53486	1,189207	137,3948725	147,3948725	356354379,9	120,6932	2952563,855
50	-60	80,6	16.603,600	128,8549572	Válido	118,85496	1,189207	141,3431608	151,3431608	399116052,8	120,6932	3306864,453
50	-60	81,9	16.871,400	129,8899534	Válido	119,88995	1,189207	142,5739856	152,5739856	413200807,5	120,6932	3423563,278
50	-60	82,9	17.077,400	130,6805265	Válido	120,68053	1,189207	143,5141407	153,5141407	424207927,5	120,6932	3514762,451
50	-60	86,1	17.736,600	133,1788271	Válido	123,17883	1,189207	146,4851377	156,4851377	460441281,7	120,6932	3814972,854
50	-60	86,2	17.757,200	133,2561443	Válido	123,25614	1,189207	146,5770838	156,5770838	461598414	120,6932	3824560,241
50	-60	94,4	19.446,400	139,4503496	Válido	129,45035	1,189207	153,9432768	163,9432768	561620440,9	120,6932	4653289,836
50	-60	95,1	19.590,600	139,9664245	Válido	129,96642	1,189207	154,5569968	164,5569968	570630106,4	120,6932	4727939,158
50	-60	96,8	19.940,800	141,2118975	Válido	131,2119	1,189207	156,0381221	166,0381221	592820017,6	120,6932	4911793,022
50	-60	97	19.982,000	141,3577023	Válido	131,3577	1,189207	156,2115142	166,2115142	595459417,8	120,6932	4933661,696
50	-60	98,6	20.311,600	142,5187707	Válido	132,51877	1,189207	157,592265	167,592265	616793217,9	120,6932	5110422,277
50	-60	109,7	22.598,200	150,326977	Válido	140,32698	1,189207	166,8778394	176,8778394	775522983,4	120,6932	6425573,134
50	-60	112,9	23.257,400	152,5037704	Válido	142,50377	1,189207	169,4664977	179,4664977	824774864,1	120,6932	6833648,16
50	-60	127,4	26.244,400	162,0012346	Válido	152,00123	1,189207	180,7609496	190,7609496	1067624317	120,6932	8845770,241
50	-60	129,1	26.594,600	163,0785087	Válido	153,07851	1,189207	182,0420517	192,0420517	1098213774	120,6932	9099218,296
50	-60	129,9	26.759,400	163,5830065	Válido	153,58301	1,189207	182,642004	192,642004	1112762944	120,6932	9219765,028
50	-60	142,3	29.313,800	171,2127332	Válido	161,21273	1,189207	191,7153293	201,7153293	1350912934	120,6932	11192949,84
50	-60	147,4	30.364,400	174,2538378	Válido	164,25384	1,189207	195,3318326	205,3318326	1455767765	120,6932	12061721,5
50	-60	147,8	30.446,800	174,4901143	Válido	164,49011	1,189207	195,6128143	205,6128143	1464162251	120,6932	12131273,76
50	-60	163,2	33.619,200	183,3553926	Válido	173,35539	1,189207	206,1554663	216,1554663	1806256485	120,6932	14965685,6
50	-60	164,7	33.928,200	184,1960912	Válido	174,19609	1,189207	207,155231	217,155231	1841550436	120,6932	15258112,6
50	-60	176,8	36.420,800	190,8423433	Válido	180,84234	1,189207	215,0590014	225,0590014	2139097101	120,6932	17723426,85
50	-60	198	40.788,000	201,9603922	Válido	191,96039	1,189207	228,2806642	238,2806642	2715666967	120,6932	22500579,71
100	-60	30,4	6.262,400	79,13532713	Válido	69,135327	1,414214	97,77211727	107,7721173	91381878,19	120,6932	757141,8952
100	-60	57,5	11.845,000	108,8347371	Válido	98,834737	1,414214	139,7734256	149,7734256	381679150,5	120,6932	3162391,505
100	-60	63,3	13.039,800	114,1919437	Válido	104,19194	1,414214	147,3496598	157,3496598	471407567,9	120,6932	3905833,7
100	-60	64	13.184,000	114,8216008	Válido	104,8216	1,414214	148,2401294	158,2401294	482906600,9	120,6932	4001108,603
100	-60	68,5	14.111,000	118,7897302	Válido	108,78973	1,414214	153,8519119	163,8519119	560288347,1	120,6932	4642252,812
100	-60	82,8	17.056,800	130,6016845	Válido	120,60168	1,414214	170,5565379	180,5565379	846200908	120,6932	7011173,024
100	-60	86,1	17.736,600	133,1788271	Válido	123,17883	1,414214	174,2011679	184,2011679	920882563,3	120,6932	7629945,708
100	-60	88,3	18.189,800	134,8695666	Válido	124,86957	1,414214	176,5922346	186,5922346	972492832,2	120,6932	8057561,091
100	-60	89,4	18.416,400	135,7070374	Válido	125,70704	1,414214	177,7765972	187,7765972	998845589,9	120,6932	8275906,098
100	-60	94,5	19.467,000	139,5241915	Válido	129,52419	1,414214	183,1748682	193,1748682	1125805979	120,6932	9327832,714
100	-60	102,2	21.053,200	145,0972088	Válido	135,09721	1,414214	191,0563049	201,0563049	1332433357	120,6932	11039837,84
100	-60	106,3	21.897,800	147,9790526	Válido	137,97905	1,414214	195,1318475	205,1318475	1449815123	120,6932	12012401,05
100	-60	107,7	22.186,200	148,9503273	Válido	138,95033	1,414214	196,5054374	206,5054374	1491070876	120,6932	12354224,4
100	-60	112,3	23.133,800	152,0979947	Válido	142,09799	1,414214	200,9569113	210,9569113	1630841627	120,6932	13512290,89
100	-60	113	23.278,000	152,5712948	Válido	142,57129	1,414214	201,6262587	211,6262587	1652678459	120,6932	13693219,33
100	-60	115,5	23.793,000	154,2497974	Válido	144,2498	1,414214	204,0000199	214,0000199	1731892130	120,6932	14349541,9
100	-60	128,1	26.388,600	162,4456832	Válido	152,44568	1,414214	215,5907527	225,5907527	2160332084	120,6932	17899368,68

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc -10	Conv Pol	Mult	Mult + 10	Kjc-10 ⁴	r-0,3068	kjc-10 ⁴ / r-0,3068
100	-60	131,1	27.006,600	164,3368492	Válido	154,33685	1,414214	218,2652653	228,2652653	2269543496	120,6932	18804236,66
100	-60	132,7	27.336,200	165,3366263	Válido	155,33663	1,414214	219,6791637	229,6791637	2328924802	120,6932	19296238,75
100	-60	150,2	30.941,200	175,9011086	Válido	165,90111	1,414214	234,6195978	244,6195978	3030101271	120,6932	25105816
100	-60	153,5	31.621,000	177,8229457	Válido	167,82295	1,414214	237,3374858	247,3374858	3172965499	120,6932	26289513,4
100	-60	160,8	33.124,800	182,0021978	Válido	172,0022	1,414214	243,2478409	253,2478409	3501031161	120,6932	29007691,91
100	-60	168,9	34.793,400	186,5298904	Válido	176,52989	1,414214	249,6509651	259,6509651	3884480962	120,6932	32184754,09
100	-60	191,9	39.531,400	198,8250487	Válido	188,82505	1,414214	267,0389448	277,0389448	5085087298	120,6932	42132342,98
100	-60	225,7	46.494,200	215,6251377	Válido	205,62514	1,414214	290,7978585	300,7978585	7150967688	120,6932	59249134,9
100	-60	230	47.380,000	217,6694742	Válido	207,66947	1,414214	293,6889869	303,6889869	7439618138	120,6932	61640739,81
100	-60	241,9	49.831,400	223,2294783	Válido	213,22948	1,414214	301,5520202	311,5520202	8268923404	120,6932	68511924,48
100	-60	265,4	54.672,400	233,8212993	Válido	223,8213	1,414214	316,531117	326,531117	10038426450	120,6932	83173090,53
100	-60	282,6	58.215,600	241,2790915	Válido	231,27909	1,414214	327,0780279	337,0780279	11444728175	120,6932	94824962,59
100	-60	415,3	85.551,800	292,4923931	Válido	282,49239	1,414214	399,5045735	409,5045735	25473406261	120,6932	211059167,1
25	-60	38,4	7.910,400	88,9404295	Válido					38832731,5	120,6932	321747,468
25	-60	46,1	9.496,600	97,45050026	Válido					58485632,73	120,6932	484581,0098
25	-60	55	11.330,000	106,4424727	Válido					86511401,47	120,6932	716787,702
25	-60	63,6	13.101,600	114,4622208	Válido					119079504,4	120,6932	986629,7718
25	-60	64,1	13.204,600	114,9112701	Válido					121140281,8	120,6932	1003704,283
25	-60	77,7	16.006,200	126,5156117	Válido					184304728,6	120,6932	1527051,471
25	-60	78,7	16.212,200	127,3271377	Válido					189493319,4	120,6932	1570041,389
25	-60	87,8	18.086,800	134,4871741	Válido					240158760,7	120,6932	1989828,43
25	-60	89,1	18.354,600	135,4791497	Válido					247905560,5	120,6932	2054014,315
25	-60	116,3	23.957,800	154,783074	Válido					439411251,3	120,6932	3640729,149
25	-60	128,7	26.512,200	162,8256737	Válido					545488093,1	120,6932	4519625,738
25	-60	129	26.574,000	163,0153367	Válido					548201032,4	120,6932	4542103,717
25	-60	131,7	27.130,200	164,7124768	Válido					572929724,7	120,6932	4746992,578
25	-60	133,7	27.542,200	165,9584285	Válido					591609857,9	120,6932	4901766,279
25	-60	133,7	27.542,200	165,9584285	Válido					591609857,9	120,6932	4901766,279
25	-60	140,7	28.984,200	170,2474669	Válido					659423914,5	120,6932	5463637,674
25	-60	150,4	30.982,400	176,0181809	Válido					759665849,5	120,6932	6294189,313
25	-60	164,6	33.907,600	184,140164	Válido					919593296,1	120,6932	7619263,522
25	-60	166,1	34.216,600	184,9772959	Válido					937404000,7	120,6932	7766833,597
25	-60	176	36.256,000	190,4100838	Válido					1059359176	120,6932	8777289,655
25	-60	197,6	40.705,600	201,7562886	Válido					1352067775	120,6932	11202518,24
25	-60	200,2	41.241,200	203,0792949	Válido					1389769628	120,6932	11514895,85
25	-60	217,1	44.722,600	211,4771855	Válido					1647796219	120,6932	13652767,67
25	-60	219,5	45.217,000	212,6428931	Válido					1686263769	120,6932	13971489,44
25	-60	234,5	48.307,000	219,7885347	Válido					1936988305	120,6932	16048860,29
25	-60	275,9	56.835,400	238,4017617	Válido					2721433947	120,6932	22548361,85
25	-60	369,1	76.034,600	275,7437216	Censurado					0	120,6932	2,184139821

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc -10	Conv Pol	Mult	Mult + 10	Kjc-10 ⁴	r-0,3068	kjc-10 ⁴ / r-0,3068
25	-60	373,6	76.961,600	277,4195379	Censurado					0	120,6932	2,184139821
25	-60	427,1	87.982,600	296,6186103	Censurado					0	120,6932	2,184139821
25	-60	678,2	139.709,200	373,7769388	Censurado					0	120,6932	2,184139821
25	-60	687,7	141.666,200	376,3857064	Censurado					0	120,6932	2,184139821
Total de Válidos 121											<i>Soma dos K0</i> 1428587545	
Total de Censurados 5											<i>Somatoria</i> ^{1/4} 194,4136325	
											anterior +10 204,4136325	
											Kjc Médio 187,3829983	
											Kjc Médio-30 157,3829983	
											-70 2,248328547	
											LN 0,810187072	
											T - TO 42,64014561	
25	-40	61,6	12.689,600	112,6481247	Válido					111020729,9	76,6932	1447595,483
25	-40	113,2	23.319,200	152,706254	Válido					414736276,5	76,6932	5407732,061
25	-40	136,6	28.139,600	167,7486215	Válido					619244689,3	76,6932	8074310,23
25	-40	139,3	28.695,800	169,3983471	Válido					645557980,7	76,6932	8417408,332
25	-40	155,4	32.012,400	178,9200939	Válido					814189048,8	76,6932	10616183,04
25	-40	165,5	34.093,000	184,6428986	Válido					930258663,7	76,6932	12129610,76
25	-40	195,2	40.211,200	200,5273049	Válido					1317737474	76,6932	17181933,65
25	-40	203,4	41.900,400	204,695872	Válido					1436901420	76,6932	18735708,25
25	-40	233,2	48.039,200	219,1784661	Válido					1914555216	76,6932	24963819,69
25	-40	251	51.706,000	227,3895336	Válido					2233338349	76,6932	29120422
25	-40	254,5	52.427,000	228,9694303	Válido					2298973438	76,6932	29976235,68
25	-40	264,8	54.548,800	233,5568453	Válido					2497766808	76,6932	32568295,6
25	-40	275,9	56.835,400	238,4017617	Válido					2721433947	76,6932	35484683,73
25	-40	283	58.298,000	241,4497877	Válido					2869638216	76,6932	37417114,11
25	-40	311,7	64.210,200	253,3973165	Válido					3509644620	76,6932	45762135,63
25	-40	349,2	71.935,200	268,2073824	Censurado					0	76,6932	3,430412845
25	-40	483,2	99.539,200	315,498336	Censurado					0	76,6932	3,430412845
25	-40	548,6	113.011,600	336,1719798	Censurado					0	76,6932	3,430412845
25	-40	562,8	115.936,800	340,4949339	Censurado					0	76,6932	3,430412845
25	-40	619,9	127.699,400	357,3505282	Censurado					0	76,6932	3,430412845
25	-40	758,7	156.292,200	395,3380832	Censurado					0	76,6932	3,430412845
25	-40	773,9	159.423,400	399,2785995	Censurado					0	76,6932	3,430412845
25	-40	1127,9	232.347,400	482,0242732	Censurado					0	76,6932	3,430412845
25	-40	1174	241.844,000	491,7763719	Censurado					0	76,6932	3,430412845
25	-40	1337,1	275.442,600	524,826257	Censurado					0	76,6932	3,430412845
25	-40	1337,2	275.463,200	524,8458821	Censurado					0	76,6932	3,430412845
25	-40	1433,6	295.321,600	543,4350007	Censurado					0	76,6932	3,430412845
25	-40	1544,1	318.084,600	563,9898935	Censurado					0	76,6932	3,430412845

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc -10	Conv Pol	Mult	Mult + 10	Kjc-10 ⁴	r-0,3068	kjc-10 ⁴ / r-0,3068
25	-40	1573,3	324.099,800	569,2976374	Censurado					0	76,6932	3,430412845
25	-40	1714,3	353.145,800	594,2607172	Censurado					0	76,6932	3,430412845
50	-40	49,1	10.114,600	100,5713677	Válido	90,571368	1,189207	107,7081149	117,7081149	134584082,9	76,6932	1754837,234
50	-40	50,6	10.423,600	102,0960332	Válido	92,096033	1,189207	109,521258	119,521258	143877768,7	76,6932	1876017,283
50	-40	60,6	12.483,600	111,7300318	Válido	101,73003	1,189207	120,9780776	130,9780776	214203575,7	76,6932	2792993,065
50	-40	93,8	19.322,800	139,0064747	Válido	129,00647	1,189207	153,4154176	163,4154176	553956963,2	76,6932	7223025,812
50	-40	107,4	22.124,400	148,7427309	Válido	138,74273	1,189207	164,9938428	174,9938428	741089994,8	76,6932	9663046,982
50	-40	107,5	22.145,000	148,8119619	Válido	138,81196	1,189207	165,0761727	175,0761727	742570282,6	76,6932	9682348,404
50	-40	119	24.514,000	156,5694734	Válido	146,56947	1,189207	174,3014606	184,3014606	923005110,5	76,6932	12035031,93
50	-40	122,7	25.276,200	158,9849049	Válido	148,9849	1,189207	177,173909	187,173909	985369393,3	76,6932	12848197,67
50	-40	137,8	28.386,800	168,4838271	Válido	158,48383	1,189207	188,4700948	198,4700948	1261739782	76,6932	16451781,66
50	-40	139,9	28.819,400	169,7627757	Válido	159,76278	1,189207	189,9910295	199,9910295	1302963904	76,6932	16989301,58
50	-40	166,5	34.299,000	185,199892	Válido	175,19989	1,189207	208,3489581	218,3489581	1884366315	76,6932	24570187,65
50	-40	167	34.402,000	185,4777615	Válido	175,47776	1,189207	208,6794025	218,6794025	1896349310	76,6932	24726433,5
50	-40	167	34.402,000	185,4777615	Válido	175,47776	1,189207	208,6794025	218,6794025	1896349310	76,6932	24726433,5
50	-40	168,9	34.793,400	186,5298904	Válido	176,52989	1,189207	209,9306016	219,9306016	1942240481	76,6932	25324806,91
50	-40	187	38.522,000	196,2702219	Válido	186,27022	1,189207	221,5138732	231,5138732	2407707487	76,6932	31394015,21
50	-40	205,3	42.291,800	205,6497022	Válido	195,6497	1,189207	232,6680179	242,6680179	2930533971	76,6932	38211131,77
50	-40	210	43.260,000	207,9903844	Válido	197,99038	1,189207	235,4515738	245,4515738	3073310155	76,6932	40072785,52
50	-40	212,8	43.836,800	209,3723955	Válido	199,3724	1,189207	237,0950713	247,0950713	3160021983	76,6932	41203418,08
50	-40	217,1	44.722,600	211,4771855	Válido	201,47719	1,189207	239,5981025	249,5981025	3295592438	76,6932	42971116,58
50	-40	219,3	45.175,800	212,545995	Válido	202,546	1,189207	240,8691384	250,8691384	3366081574	76,6932	43890222,01
50	-40	245	50.470,000	224,6552915	Válido	214,65529	1,189207	255,2695999	265,2695999	4246160353	76,6932	55365538,96
50	-40	251,8	51.870,800	227,7516191	Válido	217,75162	1,189207	258,9517747	268,9517747	4496510038	76,6932	58629839,9
50	-40	271,9	56.011,400	236,667277	Válido	226,66728	1,189207	269,5543385	279,5543385	5279408960	76,6932	68838032,06
50	-40	272,7	56.176,200	237,0151894	Válido	227,01519	1,189207	269,9680784	279,9680784	5311897197	76,6932	69261645,06
50	-40	274,2	56.485,200	237,6661524	Válido	227,66615	1,189207	270,7422083	280,7422083	5373086937	76,6932	70059495,97
50	-40	308,7	63.592,200	252,1749393	Válido	242,17494	1,189207	287,9961609	297,9961609	6879340308	76,6932	89699481,94
50	-40	308,8	63.612,800	252,2157806	Válido	242,21578	1,189207	288,0447297	298,0447297	6883982121	76,6932	89760006,37
50	-40	313,1	64.498,600	253,9657457	Válido	243,96575	1,189207	290,1258006	300,1258006	7085090594	76,6932	92382252,85
50	-40	313,1	64.498,600	253,9657457	Válido	243,96575	1,189207	290,1258006	300,1258006	7085090594	76,6932	92382252,85
50	-40	349,4	71.976,400	268,2841777	Válido	258,28418	1,189207	307,1533818	317,1533818	8900639378	76,6932	116055131,1
50	-40	386,6	79.639,600	282,2048901	Válido	272,20489	1,189207	323,7079921	333,7079921	10980286892	76,6932	143171583,6
50	-40	455,2	93.771,200	306,2208353	Válido	296,22084	1,189207	352,267925	362,267925	15398995957	76,6932	200786979,2
100	-40	40	8.240,000	90,77444574	Válido	80,774446	1,414214	114,2323167	124,2323167	170276979,6	76,6932	2220235,687
100	-40	63,5	13.081,000	114,3721994	Válido	104,3722	1,414214	147,60458	157,60458	474678250,3	76,6932	6189313,398
100	-40	75,5	15.553,000	124,7116675	Válido	114,71167	1,414214	162,2267959	172,2267959	692612559,1	76,6932	9030951,363
100	-40	79,1	16.294,600	127,6503036	Válido	117,6503	1,414214	166,3826549	176,3826549	766358890	76,6932	9992527,238
100	-40	81	16.686,000	129,1743008	Válido	119,1743	1,414214	168,5379125	178,5379125	806845613,8	76,6932	10520432,24

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc -10	Conv Pol	Mult	Mult + 10	Kjc-10 ⁴	r-0,3068	kjc-10 ⁴ / r-0,3068	
100	-40	86,1	17.736,600	133,1788271	Válido	123,17883	1,414214	174,2011679	184,2011679	920882563,3	76,6932	12007356,11	
100	-40	91,5	18.849,000	137,2916603	Válido	127,29166	1,414214	180,0175924	190,0175924	1050170457	76,6932	13693136,5	
100	-40	92,1	18.972,600	137,7410614	Válido	127,74106	1,414214	180,6531415	190,6531415	1065079616	76,6932	13887536,52	
100	-40	94,8	19.528,800	139,7454829	Válido	129,74548	1,414214	183,4878216	193,4878216	1133519456	76,6932	14779921,25	
100	-40	95,6	19.693,600	140,3338876	Válido	130,33389	1,414214	184,3199514	194,3199514	1154222110	76,6932	15049862,44	
100	-40	96	19.776,000	140,6271666	Válido	130,62717	1,414214	184,7347107	194,7347107	1164646214	76,6932	15185781,97	
100	-40	96,4	19.858,400	140,9198354	Válido	130,91984	1,414214	185,1486068	195,1486068	1175118851	76,6932	15322334,33	
100	-40	99,6	20.517,600	143,2396593	Válido	133,23966	1,414214	188,4293332	198,4293332	1260648599	76,6932	16437553,77	
100	-40	102,6	21.135,600	145,3808791	Válido	135,38088	1,414214	191,4574753	201,4574753	1343659758	76,6932	17519933,42	
100	-40	108,2	22.289,200	149,2956798	Válido	139,29568	1,414214	196,9938395	206,9938395	1505950093	76,6932	19636031,53	
100	-40	110,9	22.845,400	151,1469484	Válido	141,14695	1,414214	199,6119287	209,6119287	1587617814	76,6932	20700894,14	
100	-40	112,4	23.154,400	152,1656992	Válido	142,1657	1,414214	201,0526599	211,0526599	1633951992	76,6932	21305043,89	
100	-40	124	25.544,000	159,8249042	Válido	149,8249	1,414214	211,8844115	221,8844115	2015561369	76,6932	26280835,45	
100	-40	141,2	29.087,200	170,5496995	Válido	160,5497	1,414214	227,0515625	237,0515625	2657651185	76,6932	34653022,5	
100	-40	142,5	29.355,000	171,3330091	Válido	161,33301	1,414214	228,1593295	238,1593295	2709897895	76,6932	35334265,55	
100	-40	153,4	31.600,400	177,7650134	Válido	167,76501	1,414214	237,2555573	247,2555573	3168586556	76,6932	41315091,24	
100	-40	160,5	33.063,000	181,8323404	Válido	171,83234	1,414214	243,0076262	253,0076262	3487222131	76,6932	45469769,57	
100	-40	166,8	34.360,800	185,3666637	Válido	175,36666	1,414214	248,0059141	258,0059141	3783102863	76,6932	49327748,26	
100	-40	167,8	34.566,800	185,9214888	Válido	175,92149	1,414214	248,7905554	258,7905554	3831206478	76,6932	49954969,65	
100	-40	175,4	36.132,400	190,085244	Válido	180,08524	1,414214	254,6789945	264,6789945	4206999944	76,6932	54854927,73	
100	-40	186,7	38.460,200	196,1127227	Válido	186,11272	1,414214	263,2031366	273,2031366	4799149087	76,6932	62575940,07	
100	-40	187,7	38.666,200	196,6372294	Válido	186,63723	1,414214	263,9449011	273,9449011	4853478464	76,6932	63284338,94	
100	-40	214,1	44.104,600	210,0109521	Válido	200,01095	1,414214	282,8582011	292,8582011	6401401983	76,6932	83467660,54	
100	-40	272,3	56.093,800	236,8412971	Válido	226,8413	1,414214	320,8020388	330,8020388	10591280717	76,6932	138099345,4	
100	-40	282,2	58.133,200	241,1082744	Válido	231,10827	1,414214	326,8364561	336,8364561	11410954430	76,6932	148787042,8	
					Válidos	77						Somatoria	2958986415
					Censurados	15						Somatoria ^{1/4}	233,2307145
											K0	243,2307145	
											Kjc Médio	222,799704	
											-30	192,799704	
											/ 70	2,754281485	
											Ln	1,013156605	
											T-T0	53,3224321	
25	-20	78,9	16.253,400	127,488823	Válido					190540022,8	62,6932	3039245,449	
25	-20	102,7	21.156,200	145,4517102	Válido					336618492,7	62,6932	5369298,309	
25	-20	258,8	53.312,800	230,8956474	Válido					2380941002	62,6932	37977659,5	
25	-20	723,7	149.082,200	386,1116419	Censurado					0	62,6932	4,073937366	
25	-20	772,5	159.135,000	398,9172847	Censurado					0	62,6932	4,073937366	
25	-20	798,3	164.449,800	405,5241053	Censurado					0	62,6932	4,073937366	
25	-20	914,9	188.469,400	434,1306255	Censurado					0	62,6932	4,073937366	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc -10	Conv Pol	Mult	Mult + 10	Kjc-10 ⁴	r-0,3068	kjc-10 ⁴ / r-0,3068
25	-20	1133,7	233.542,200	483,2620407	Censurado					0	62,6932	4,073937366
25	-20	1340	276.040,000	525,3950894	Censurado					0	62,6932	4,073937366
25	-20	1348,6	277.811,600	527,0783623	Censurado					0	62,6932	4,073937366
25	-20	1361,1	280.386,600	529,5154389	Censurado					0	62,6932	4,073937366
25	-20	1368,5	281.911,000	530,9529169	Censurado					0	62,6932	4,073937366
25	-20	1368,6	281.931,600	530,9723157	Censurado					0	62,6932	4,073937366
25	-20	1371,1	282.446,600	531,4570538	Censurado					0	62,6932	4,073937366
25	-20	1381,3	284.547,800	533,4302204	Censurado					0	62,6932	4,073937366
25	-20	1391	286.546,000	535,2999159	Censurado					0	62,6932	4,073937366
25	-20	1408,2	290.089,200	538,5992945	Censurado					0	62,6932	4,073937366
25	-20	1436,3	295.877,800	543,9465047	Censurado					0	62,6932	4,073937366
25	-20	1459,7	300.698,200	548,3595536	Censurado					0	62,6932	4,073937366
25	-20	1472,5	303.335,000	550,7585678	Censurado					0	62,6932	4,073937366
25	-20	1473,7	303.582,200	550,9829398	Censurado					0	62,6932	4,073937366
25	-20	1480,1	304.900,600	552,178051	Censurado					0	62,6932	4,073937366
25	-20	1496,6	308.299,600	555,2473323	Censurado					0	62,6932	4,073937366
25	-20	1497,2	308.423,200	555,3586229	Censurado					0	62,6932	4,073937366
25	-20	1499	308.794,000	555,6923609	Censurado					0	62,6932	4,073937366
25	-20	1524,5	314.047,000	560,398965	Censurado					0	62,6932	4,073937366
25	-20	1547,8	318.846,800	564,6652105	Censurado					0	62,6932	4,073937366
25	-20	1553,3	319.979,800	565,6675702	Censurado					0	62,6932	4,073937366
25	-20	1554,5	320.227,000	565,8860309	Censurado					0	62,6932	4,073937366
25	-20	1560,5	321.463,000	566,9770718	Censurado					0	62,6932	4,073937366
25	-20	1575	324.450,000	569,6051264	Censurado					0	62,6932	4,073937366
50	-20	139	28.634,000	169,2158385	Válido	159,21584	1,189207	189,340608	199,340608	1285212880	62,6932	20500036,36
50	-20	162	33.372,000	182,6800482	Válido	172,68005	1,189207	205,3523419	215,3523419	1778273842	62,6932	28364700,51
50	-20	168,1	34.628,600	186,0876138	Válido	176,08761	1,189207	209,4046432	219,4046432	1922849212	62,6932	30670777,88
50	-20	180,6	37.203,600	192,8823476	Válido	182,88235	1,189207	217,4849889	227,4849889	2237263551	62,6932	35685904,54
50	-20	195,2	40.211,200	200,5273049	Válido	190,5273	1,189207	226,5764266	236,5764266	2635474948	62,6932	42037652,37
50	-20	256	52.736,000	229,6432015	Válido	219,6432	1,189207	261,201258	271,201258	4654800336	62,6932	74247292,15
50	-20	259	53.354,000	230,984848	Válido	220,98485	1,189207	262,7967535	272,7967535	4769578307	62,6932	76078080,35
50	-20	291	59.946,000	244,8387224	Válido	234,83872	1,189207	279,2718796	289,2718796	6082874158	62,6932	97026059,57
50	-20	326,5	67.259,000	259,3434017	Válido	249,3434	1,189207	296,5209474	306,5209474	7730747986	62,6932	123310789,5
50	-20	328,8	67.732,800	260,2552593	Válido	250,25526	1,189207	297,6053349	307,6053349	7844456315	62,6932	125124516,1
50	-20	330	67.980,000	260,7297451	Válido	250,72975	1,189207	298,1695969	308,1695969	7904118316	62,6932	126076166,4
50	-20	362,3	74.633,800	273,191874	Válido	263,19187	1,189207	312,9896491	322,9896491	9596655415	62,6932	153073306,4
50	-20	380	78.280,000	279,7856322	Válido	269,78563	1,189207	320,8309934	330,8309934	10595104972	62,6932	168999269
50	-20	392	80.752,000	284,1689638	Válido	274,16896	1,189207	326,0436825	336,0436825	11300643083	62,6932	180253091
50	-20	417	85.902,000	293,0904297	Válido	283,09043	1,189207	336,6531532	346,6531532	12844900557	62,6932	204885068,2
50	-20	447	92.082,000	303,4501607	Válido	293,45016	1,189207	348,9730189	358,9730189	14830896431	62,6932	236563079,1

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc -10	Conv Pol	Mult	Mult + 10	Kjc-10 ⁴	r-0,3068	kjc-10 ⁴ / r-0,3068
50	-20	480	98.880,000	314,4519041	Censurado	304,4519	1,189207	362,0563705	372,0563705	0	62,6932	5,761417506
50	-20	486,8	100.280,800	316,6714386	Censurado	306,67144	1,189207	364,6958567	374,6958567	0	62,6932	5,761417506
50	-20	502	103.412,000	321,5773624	Censurado	311,57736	1,189207	370,5300162	380,5300162	0	62,6932	5,761417506
50	-20	512	105.472,000	324,7645301	Censurado	314,76453	1,189207	374,3202187	384,3202187	0	62,6932	5,761417506
50	-20	555	114.330,000	338,127195	Censurado	328,1272	1,189207	390,2111949	400,2111949	0	62,6932	5,761417506
50	-20	648,8	133.652,800	365,5855577	Censurado	355,58556	1,189207	422,8648752	432,8648752	0	62,6932	5,761417506
50	-20	655,6	135.053,600	367,4963945	Censurado	357,49639	1,189207	425,137256	435,137256	0	62,6932	5,761417506
50	-20	695	143.170,000	378,3781178	Censurado	368,37812	1,189207	438,0778787	448,0778787	0	62,6932	5,761417506
50	-20	807	166.242,000	407,7278504	Censurado	397,72785	1,189207	472,9807895	482,9807895	0	62,6932	5,761417506
50	-20	820	168.920,000	410,9987835	Censurado	400,99878	1,189207	476,8706064	486,8706064	0	62,6932	5,761417506
50	-20	1017	209.502,000	457,7138844	Censurado	447,71388	1,189207	532,4245368	542,4245368	0	62,6932	5,761417506
50	-20	1266	260.796,000	510,6818971	Censurado	500,6819	1,189207	595,4144744	605,4144744	0	62,6932	5,761417506
50	-20	1582	325.892,000	570,8695122	Censurado	560,86951	1,189207	666,9900145	676,9900145	0	62,6932	5,761417506
50	-20	1619	333.514,000	577,5067099	Censurado	567,50671	1,189207	674,8830172	684,8830172	0	62,6932	5,761417506
100	-20	58,6	12.071,600	109,8708333	Válido	99,870833	1,414214	141,2386869	151,2386869	397937332,8	62,6932	6347376,315
100	-20	74,4	15.326,400	123,7998384	Válido	113,79984	1,414214	160,9372749	170,9372749	670851775,4	62,6932	10700550,86
100	-20	82,8	17.056,800	130,6016845	Válido	120,60168	1,414214	170,5565379	180,5565379	846200908	62,6932	13497491,08
100	-20	100,6	20.723,600	143,956938	Válido	133,95694	1,414214	189,4437185	199,4437185	1288014757	62,6932	20544728,24
100	-20	112,2	23.113,200	152,0302601	Válido	142,03026	1,414214	200,8611202	210,8611202	1627734323	62,6932	25963490,83
100	-20	123,7	25.482,200	159,6314505	Válido	149,63145	1,414214	211,6108267	221,6108267	2005171556	62,6932	31983876,34
100	-20	130,8	26.944,800	164,1487131	Válido	154,14871	1,414214	217,9992006	227,9992006	2258497450	62,6932	36024599,95
100	-20	133,4	27.480,400	165,7721328	Válido	155,77213	1,414214	220,2950628	230,2950628	2355152620	62,6932	37566316,92
100	-20	186,1	38.336,600	195,7973442	Válido	185,79734	1,414214	262,757124	272,757124	4766701966	62,6932	76032200,72
100	-20	188,4	38.810,400	197,0035533	Válido	187,00355	1,414214	264,4629612	274,4629612	4891695623	62,6932	78025936,2
100	-20	191,7	39.490,200	198,721413	Válido	188,72141	1,414214	266,8923818	276,8923818	5073932786	62,6932	80932745,28
100	-20	193	39.758,000	199,3940822	Válido	189,39408	1,414214	267,8436796	277,8436796	5146661564	62,6932	82092819,7
100	-20	212,3	43.733,800	209,1262776	Válido	199,12628	1,414214	281,6070825	291,6070825	6288894261	62,6932	100312223
100	-20	212,5	43.775,000	209,2247595	Válido	199,22476	1,414214	281,7463569	291,7463569	6301344688	62,6932	100510816
100	-20	223	45.938,000	214,3315189	Válido	204,33152	1,414214	288,9684053	298,9684053	6972707461	62,6932	111219517,6
100	-20	224,4	46.226,400	215,0032558	Válido	205,00326	1,414214	289,9183847	299,9183847	7064851295	62,6932	112689275,6
100	-20	231,2	47.627,200	218,2365689	Válido	208,23657	1,414214	294,4909799	304,4909799	7521214740	62,6932	119968588,9
100	-20	247,3	50.943,800	225,7073326	Válido	215,70733	1,414214	305,0562353	315,0562353	8660034563	62,6932	138133554,6
100	-20	288,5	59.431,000	243,7847411	Válido	233,78474	1,414214	330,6215516	340,6215516	11948809536	62,6932	190591795,2
100	-20	299,8	61.758,800	248,5131787	Válido	238,51318	1,414214	337,3085722	347,3085722	12945222307	62,6932	206485269,6
100	-20	301,3	62.067,800	249,1341004	Válido	239,1341	1,414214	338,1866881	348,1866881	13080550879	62,6932	208643854,2
100	-20	315,9	65.075,400	255,0988044	Válido	245,0988	1,414214	346,6220533	356,6220533	14435265042	62,6932	230252484,2
100	-20	318,2	65.549,200	256,02578	Válido	246,02578	1,414214	347,9329947	357,9329947	14654886541	62,6932	233755599,4
100	-20	324,6	66.867,600	258,5877027	Válido	248,5877	1,414214	351,5561006	361,5561006	15274906304	62,6932	243645344,4
100	-20	334,9	68.989,400	262,6583332	Válido	252,65833	1,414214	357,3128415	367,3128415	16300258746	62,6932	260000426,6
100	-20	371,9	76.611,400	276,7876442	Válido	266,78764	1,414214	377,2947047	387,2947047	20263890969	62,6932	323223108,2

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc -10	Conv Pol	Mult	Mult + 10	Kjc-10 ⁴	r-0,3068	kjc-10 ⁴ / r-0,3068	
100	-20	373,5	76.941,000	277,3824075	Válido	267,38241	1,414214	378,1358271	388,1358271	20445197435	62,6932	326115072	
100	-20	384,1	79.124,600	281,2909526	Válido	271,29095	1,414214	383,6633445	393,6633445	21667122228	62,6932	345605619,6	
100	-20	588,7	121.272,200	348,2415828	Válido	338,24158	1,414214	478,3458338	488,3458338	52356183725	62,6932	835117424,6	
100	-20	683,1	140.718,600	375,1247792	Censurado	365,12478	1,414214	516,3644148	526,3644148	0	62,6932	8,14787473	
200	-20	112	23.072,000	151,8947004	Válido	141,8947	1,681793	238,6374898	248,6374898	3243057793	62,6932	51729019,94	
200	-20	117	24.102,000	155,2481884	Válido	145,24819	1,681793	244,2773619	254,2773619	3560679502	62,6932	56795306,38	
200	-20	125	25.750,000	160,4680654	Válido	150,46807	1,681793	253,0561135	263,0561135	4100788163	62,6932	65410413,94	
200	-20	162	33.372,000	182,6800482	Válido	172,68005	1,681793	290,412067	300,412067	7113095369	62,6932	113458802,1	
200	-20	162	33.372,000	182,6800482	Válido	172,68005	1,681793	290,412067	300,412067	7113095369	62,6932	113458802,1	
200	-20	166	34.196,000	184,9216105	Válido	174,92161	1,681793	294,1819012	304,1819012	7489689291	62,6932	119465736,2	
200	-20	168	34.608,000	186,0322553	Válido	176,03226	1,681793	296,0497848	306,0497848	7681729307	62,6932	122528907,6	
200	-20	175	36.050,000	189,8683755	Válido	179,86838	1,681793	302,5013443	312,5013443	8373542633	62,6932	133563809,7	
200	-20	179	36.874,000	192,0260399	Válido	182,02604	1,681793	306,1300889	316,1300889	8782619552	62,6932	140088870,1	
200	-20	179	36.874,000	192,0260399	Válido	182,02604	1,681793	306,1300889	316,1300889	8782619552	62,6932	140088870,1	
200	-20	187	38.522,000	196,2702219	Válido	186,27022	1,681793	313,2679237	323,2679237	9630829949	62,6932	153618413,9	
200	-20	199	40.994,000	202,4697508	Válido	192,46975	1,681793	323,694247	333,694247	10978422067	62,6932	175113442,4	
200	-20	234	48.204,000	219,5540936	Válido	209,55409	1,681793	352,4265722	362,4265722	15426755029	62,6932	246067436,8	
200	-20	236	48.616,000	220,4903626	Válido	210,49036	1,681793	354,0011827	364,0011827	15704309727	62,6932	250494626,6	
200	-20	239	49.234,000	221,8873588	Válido	211,88736	1,681793	356,3506409	366,3506409	16125388141	62,6932	257211119,2	
					Válidos	63						Somatoria	8494357879
					Censurados	43						Somatoria ^{1/4}	303,5866282
										K0	313,5866282		
										Kjc Médio	286,9924395		
										-30	256,9924395		
										/70	3,671320565		
										Ln	1,300551424		
										T-T0	68,44802146		

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20^4	r-0,3068	Kjc-20^4 / r - 0,3068
25	-91	76,8	15.820,800	125,78	Válido					125206466,4	109,6932	1141424,139
25	-91	70,6	14.543,600	120,60	Válido					102408855,1	109,6932	933593,4688
25	-91	23,7	4.882,200	69,87	Válido					6186613,242	109,6932	56399,24118
25	-91	42,3	8.713,800	93,35	Válido					28943222,01	109,6932	263856,1188
25	-91	77,2	15.903,200	126,11	Válido					126762477,6	109,6932	1155609,26
25	-91	68,5	14.111,000	118,79	Válido					95246099,01	109,6932	868295,3821
25	-91	52	10.712,000	103,50	Válido					48609457,63	109,6932	443140,1183
25	-91	29,4	6.056,400	77,82	Válido					11178891,73	109,6932	101910,5262
25	-91	46,3	9.537,800	97,66	Válido					36376984,58	109,6932	331624,7915
25	-91	124,3	25.605,800	160,02	Válido					384358967,4	109,6932	3503945,252
25	-91	39,7	8.178,200	90,43	Válido					24610171,27	109,6932	224354,575
25	-91	63,3	13.039,800	114,19	Válido					78714553,27	109,6932	717588,2668
25	-91	71,4	14.708,400	121,28	Válido					105211635	109,6932	959144,55
25	-91	76	15.656,000	125,12	Válido					122125539,4	109,6932	1113337,376
25	-91	55,9	11.515,400	107,31	Válido					58110231,58	109,6932	529752,36
25	-91	21,3	4.387,800	66,24	Válido					4571818,671	109,6932	41678,2323
25	-91	76,5	15.759,000	125,53	Válido					124046262,3	109,6932	1130847,33
25	-91	23,1	4.758,600	68,98	Válido					5756620,047	109,6932	52479,279
25	-91	70,2	14.461,200	120,25	Válido					101022818,4	109,6932	920957,8934
25	-91	38,6	7.951,600	89,17	Válido					22893643,32	109,6932	208706,1305
25	-91	112,8	23.236,800	152,44	Válido					307628845,9	109,6932	2804447,731
25	-91	19,9	4.099,400	64,03	Válido					3757153,118	109,6932	34251,4679
25	-91	77	15.862,000	125,94	Válido					125983175,5	109,6932	1148504,88
25	-91	47,3	9.743,800	98,71	Válido					38382639,98	109,6932	349909,0188
25	-91	48,9	10.073,400	100,37	Válido					41715410,74	109,6932	380291,6747
25	-91	93,9	19.343,400	139,08	Válido					201077445,6	109,6932	1833089,431
25	-91	29,1	5.994,600	77,42	Válido					10874217,93	109,6932	99133,01767
25	-91	56,6	11.659,600	107,98	Válido					59914022,7	109,6932	546196,3248
25	-91	51,4	10.588,400	102,90	Válido					47229908,47	109,6932	430563,6856
25	-91	76,6	15.779,600	125,62	Válido					124432349,2	109,6932	1134367,027
25	-91	59,4	12.236,400	110,62	Válido					67431515,97	109,6932	614728,3147
50	-91	22,4	4.614,400	67,93	Válido	47,93	1,189207	57,00	77,00	10554485,37	109,6932	96218,22837
50	-91	31,7	6.530,200	80,81	Válido	60,81	1,189207	72,32	92,32	27347655,05	109,6932	249310,3952
50	-91	14,9	3.069,400	55,40	Válido	35,40	1,189207	42,10	62,10	3141588,752	109,6932	28639,77669
50	-91	46,5	9.579,000	97,87	Válido	77,87	1,189207	92,61	112,61	73546747,77	109,6932	670476,8187
50	-91	24,6	5.067,600	71,19	Válido	51,19	1,189207	60,87	80,87	13730025,15	109,6932	125167,514
50	-91	58,7	12.092,200	109,96	Válido	89,96	1,189207	106,99	126,99	131013317,9	109,6932	1194361,346
50	-91	41,6	8.569,600	92,57	Válido	72,57	1,189207	86,30	106,30	55476566,17	109,6932	505742,9829
50	-91	30,4	6.262,400	79,14	Válido	59,14	1,189207	70,32	90,32	24457834,96	109,6932	222965,8262
50	-91	46,1	9.496,600	97,45	Válido	77,45	1,189207	92,10	112,10	71965923,79	109,6932	656065,4971

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20^4	r-0,3068	Kjc-20^4 / r - 0,3068
50	-91	48,7	10.032,200	100,16	Válido	80,16	1,189207	95,33	115,33	82580916,19	109,6932	752835,3279
50	-91	30,2	6.221,200	78,87	Válido	58,87	1,189207	70,01	90,01	24029315,59	109,6932	219059,2999
50	-91	47,3	9.743,800	98,71	Válido	78,71	1,189207	93,60	113,60	76765279,96	109,6932	699818,0376
50	-91	55,6	11.453,600	107,02	Válido	87,02	1,189207	103,49	123,49	114692790,5	109,6932	1045577,944
50	-91	41,5	8.549,000	92,46	Válido	72,46	1,189207	86,17	106,17	55136926,54	109,6932	502646,7141
50	-91	18,3	3.769,800	61,40	Válido	41,40	1,189207	49,23	69,23	5874578,163	109,6932	53554,62475
50	-91	54,6	11.247,600	106,05	Válido	86,05	1,189207	102,34	122,34	109680250,4	109,6932	999881,947
50	-91	100,5	20.703,000	143,89	Válido	123,89	1,189207	147,33	167,33	471096740,4	109,6932	4294675,881
50	-91	27,7	5.706,200	75,54	Válido	55,54	1,189207	66,05	86,05	19029813,55	109,6932	173482,1626
50	-91	76,2	15.697,200	125,29	Válido	105,29	1,189207	125,21	145,21	245783773,5	109,6932	2240647,31
50	-91	75,7	15.594,200	124,88	Válido	104,88	1,189207	124,72	144,72	241961740,5	109,6932	2205804,375
50	-91	78,6	16.191,600	127,25	Válido	107,25	1,189207	127,54	147,54	264580565	109,6932	2412005,165
50	-91	59,1	12.174,600	110,34	Válido	90,34	1,189207	107,43	127,43	133205709,4	109,6932	1214347,921
50	-91	81	16.686,000	129,17	Válido	109,17	1,189207	129,83	149,83	284126455,3	109,6932	2590192,057
50	-91	86,5	17.819,000	133,49	Válido	113,49	1,189207	134,96	154,96	331762366,3	109,6932	3024456,997
50	-91	117,8	24.266,800	155,78	Válido	135,78	1,189207	161,47	181,47	679748454,8	109,6932	6196814,887
50	-91	52,7	10.856,200	104,19	Válido	84,19	1,189207	100,12	120,12	100492995,4	109,6932	916127,849
50	-91	57,4	11.824,400	108,74	Válido	88,74	1,189207	105,53	125,53	124024878,2	109,6932	1130652,385
50	-91	34,3	7.065,800	84,06	Válido	64,06	1,189207	76,18	96,18	33676890,66	109,6932	307009,8298
50	-91	18,8	3.872,800	62,23	Válido	42,23	1,189207	50,22	70,22	6361937,218	109,6932	57997,55334
50	-91	45,3	9.331,800	96,60	Válido	76,60	1,189207	91,09	111,09	68860987,42	109,6932	627759,8559
50	-91	30,6	6.303,600	79,40	Válido	59,40	1,189207	70,63	90,63	24890624,91	109,6932	226911,2845
50	-91	86	17.716,000	133,10	Válido	113,10	1,189207	134,50	154,50	327267529,4	109,6932	2983480,557
50	-91	20,2	4.161,200	64,51	Válido	44,51	1,189207	52,93	72,93	7847972,75	109,6932	71544,75163
50	-91	67	13.802,000	117,48	Válido	97,48	1,189207	115,93	135,93	180603506,3	109,6932	1646442,134
100	-91	21,6	4.449,600	66,71	Válido	46,71	1,414214	66,05	86,05	19033798,98	109,6932	173518,495
100	-91	126,4	26.038,400	161,36	Válido	141,36	1,414214	199,92	219,92	1597414266	109,6932	14562564,18
100	-91	47,6	9.805,600	99,02	Válido	79,02	1,414214	111,76	131,76	155983654,4	109,6932	1421999,307
100	-91	39,6	8.157,600	90,32	Válido	70,32	1,414214	99,45	119,45	97805085,15	109,6932	891623,958
100	-91	53,7	11.062,200	105,18	Válido	85,18	1,414214	120,46	140,46	210547079,5	109,6932	1919417,79
100	-91	33	6.798,000	82,45	Válido	62,45	1,414214	88,32	108,32	60840018,92	109,6932	554638,0169
100	-91	40,1	8.260,600	90,89	Válido	70,89	1,414214	100,25	120,25	101005968,5	109,6932	920804,2844
100	-91	42,7	8.796,200	93,79	Válido	73,79	1,414214	104,35	124,35	118578058,5	109,6932	1080997,35
100	-91	41,1	8.466,600	92,01	Válido	72,01	1,414214	101,84	121,84	107579828,9	109,6932	980733,8
100	-91	23,3	4.799,800	69,28	Válido	49,28	1,414214	69,69	89,69	23591934,17	109,6932	215071,9841
100	-91	41,3	8.507,800	92,24	Válido	72,24	1,414214	102,16	122,16	108922225	109,6932	992971,5329
100	-91	45,6	9.393,600	96,92	Válido	76,92	1,414214	108,78	128,78	140032979,4	109,6932	1276587,604
100	-91	25,9	5.335,400	73,04	Válido	53,04	1,414214	75,02	95,02	31666440,05	109,6932	288681,8877
100	-91	32	6.592,000	81,19	Válido	61,19	1,414214	86,54	106,54	56080768,45	109,6932	511251,0935
100	-91	27,7	5.706,200	75,54	Válido	55,54	1,414214	78,54	98,54	38059627,11	109,6932	346964,3251

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20^4	r-0,3068	Kjc-20^4 / r - 0,3068
100	-91	41,3	8.507,800	92,24	Válido	72,24	1,414214	102,16	122,16	108922225	109,6932	992971,5329
100	-91	33,4	6.880,400	82,95	Válido	62,95	1,414214	89,02	109,02	62804767,08	109,6932	572549,3201
100	-91	32,1	6.612,600	81,32	Válido	61,32	1,414214	86,72	106,72	56546917,14	109,6932	515500,6613
100	-91	35,9	7.395,400	86,00	Válido	66,00	1,414214	93,33	113,33	75882898,66	109,6932	691773,9537
100	-91	35,8	7.374,800	85,88	Válido	65,88	1,414214	93,16	113,16	75333156,8	109,6932	686762,3226
100	-91	40,6	8.363,600	91,45	Válido	71,45	1,414214	101,05	121,05	104264161,5	109,6932	950507,0645
100	-91	32,9	6.777,400	82,32	Válido	62,32	1,414214	88,14	108,14	60354295,91	109,6932	550210,003
100	-91	37,6	7.745,600	88,01	Válido	68,01	1,414214	96,18	116,18	85571246,37	109,6932	780096,1807
100	-91	19,7	4.058,200	63,70	Válido	43,70	1,414214	61,81	81,81	14593009,36	109,6932	133034,7676
100	-91	49,2	10.135,200	100,67	Válido	80,67	1,414214	114,09	134,09	169429313	109,6932	1544574,44
100	-91	42,3	8.713,800	93,35	Válido	73,35	1,414214	103,73	123,73	115772888,1	109,6932	1055424,475
100	-91	29,5	6.077,000	77,96	Válido	57,96	1,414214	81,96	101,96	45126025,84	109,6932	411383,9859
100	-91	25,4	5.232,400	72,34	Válido	52,34	1,414214	74,01	94,01	30008194,56	109,6932	273564,7657
100	-91	19,6	4.037,600	63,54	Válido	43,54	1,414214	61,58	81,58	14377982,62	109,6932	131074,5117
100	-91	46,6	9.599,600	97,98	Válido	77,98	1,414214	110,28	130,28	147889826,7	109,6932	1348213,26
200	-91	50,7	10.444,200	102,20	Válido	82,20	1,681793	138,24	158,24	365183446,7	109,6932	3329134,775
200	-91	33,9	6.983,400	83,57	Válido	63,57	1,681793	106,91	126,91	130620017,9	109,6932	1190775,89
200	-91	44,8	9.228,800	96,07	Válido	76,07	1,681793	127,93	147,93	267834797,3	109,6932	2441671,838
200	-91	40,9	8.425,400	91,79	Válido	71,79	1,681793	120,74	140,74	212493309,2	109,6932	1937160,272
200	-91	44,6	9.187,600	95,85	Válido	75,85	1,681793	127,57	147,57	264824052,5	109,6932	2414224,879
200	-91	25,8	5.314,800	72,90	Válido	52,90	1,681793	88,97	108,97	62661460,34	109,6932	571242,8878
200	-91	25,4	5.232,400	72,34	Válido	52,34	1,681793	88,02	108,02	60016389,12	109,6932	547129,5314
200	-91	25,6	5.273,600	72,62	Válido	52,62	1,681793	88,50	108,50	61330813,25	109,6932	559112,2627
200	-91	13,8	2.842,800	53,32	Válido	33,32	1,681793	56,03	76,03	9858281,639	109,6932	89871,40168
200	-91	23	4.738,000	68,83	Válido	48,83	1,681793	82,13	102,13	45493388,84	109,6932	414732,9902
200	-91	20,4	4.202,400	64,83	Válido	44,83	1,681793	75,39	95,39	32300322,8	109,6932	294460,5755
200	-91	30,2	6.221,200	78,87	Válido	58,87	1,681793	99,01	119,01	96117262,38	109,6932	876237,1996
200	-91	23,2	4.779,200	69,13	Válido	49,13	1,681793	82,63	102,63	46616451,6	109,6932	424971,207
200	-91	38,8	7.992,800	89,40	Válido	69,40	1,681793	116,72	136,72	185604911,9	109,6932	1692036,625
200	-91	36,9	7.601,400	87,19	Válido	67,19	1,681793	112,99	132,99	163006655,8	109,6932	1486023,343
Total de Válidos					110						<i>Soma dos K0</i>	119461054,6
											<i>Somatoria ^1/4</i>	104,545799
											anterior +20	124,545799
											Kjc Médio	115,387587
												85,38758701
												1,219822672
											Ln	0,198705497
											T - T0	10,45787031
25	-60	261	53.766,000	231,8749663	Válido					2015202002	120,6932	16696897,6

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20^4	r-0,3068	Kjc-20^4 / r - 0,3068
25	-60	62,3	12.833,800	113,2863628	Válido					75730816,98	120,6932	627465,4826
25	-60	81,3	16.747,800	129,4132914	Válido					143311265,7	120,6932	1187401,326
25	-60	54,2	11.165,200	105,66551	Válido					53854750,56	120,6932	446211,9701
25	-60	123,4	25.420,400	159,4377622	Válido					378025952,7	120,6932	3132123,041
25	-60	191,8	39.510,800	198,7732376	Válido					1021433322	120,6932	8463056,096
25	-60	74,6	15.367,600	123,9661244	Válido					116833508,7	120,6932	968020,64
25	-60	100,3	20.661,800	143,7421302	Válido					234460859,4	120,6932	1942618,635
25	-60	40,2	8.281,200	91,00109889	Válido					25413254,26	120,6932	210560,7794
25	-60	78,2	16.109,200	126,9220233	Válido					130697919,3	120,6932	1082893,811
25	-60	129	26.574,000	163,0153367	Válido					418341020,6	120,6932	3466152,365
25	-60	140,9	29.025,400	170,3684243	Válido					511242082,6	120,6932	4235881,413
25	-60	56,1	11.556,600	107,5016279	Válido					58622526,43	120,6932	485715,2386
25	-60	67,4	13.884,400	117,8320839	Válido					91606273,8	120,6932	759001,1185
25	-60	112,2	23.113,200	152,0302601	Válido					303874261,2	120,6932	2517741,358
25	-60	120,3	24.781,800	157,4223618	Válido					356639656,8	120,6932	2954927,509
25	-60	90	18.540,000	136,1616686	Válido					182075439,7	120,6932	1508580,763
25	-60	68	14.008,000	118,355397	Válido					93582099,2	120,6932	775371,7624
25	-60	81,4	16.768,400	129,4928569	Válido					143728585,3	120,6932	1190859,016
25	-60	141,9	29.231,400	170,9719275	Válido					519499100,1	120,6932	4304294,692
25	-60	34	7.004,000	83,68990381	Válido					16454412,17	120,6932	136332,5537
25	-60	284,9	58.689,400	242,2589524	Válido					2440265341	120,6932	20218747,54
25	-60	69	14.214,000	119,2224811	Válido					96926008,89	120,6932	803077,629
25	-60	52	10.712,000	103,4987923	Válido					48609457,63	120,6932	402752,2481
25	-60	127,4	26.244,400	162,0012346	Válido					406601035,8	120,6932	3368881,062
25	-60	193,2	39.799,200	199,4973684	Válido					1038083632	120,6932	8601011,753
25	-60	90,4	18.622,400	136,4639146	Válido					183977848,2	120,6932	1524343,113
25	-60	142,5	29.355,000	171,3330091	Válido					524486930,2	120,6932	4345621,213
25	-60	46,9	9.661,400	98,29242087	Válido					37573260,89	120,6932	311312,1609
25	-60	143,1	29.478,600	171,6933313	Válido					529499988,6	120,6932	4387156,762
25	-60	82,3	16.953,800	130,2067587	Válido					147513890,6	120,6932	1222222,052
50	-60	164,7	33.928,200	184,1960912	Válido	164,19609	1,189207	195,2631599	215,2631599	1453721629	120,6932	12044768,3
50	-60	109,7	22.598,200	150,326977	Válido	130,32698	1,189207	154,9857683	174,9857683	576988665,5	120,6932	4780622,814
50	-60	59,4	12.236,400	110,6182625	Válido	90,618263	1,189207	107,7638825	127,7638825	134863031,9	120,6932	1117403,731
50	-60	98,6	20.311,600	142,5187707	Válido	122,51877	1,189207	145,7001938	165,7001938	450651185,7	120,6932	3733857,299
50	-60	52,9	10.897,400	104,3906126	Válido	84,390613	1,189207	100,3579169	120,3579169	101439372,4	120,6932	840472,9713
50	-60	112,9	23.257,400	152,5037704	Válido	132,50377	1,189207	157,5744266	177,5744266	616513997,7	120,6932	5108108,806
50	-60	147,8	30.446,800	174,4901143	Válido	154,49011	1,189207	183,7207432	203,7207432	1139286035	120,6932	9439521,324
50	-60	82,9	17.077,400	130,6805265	Válido	110,68053	1,189207	131,6220696	151,6220696	300133768,2	120,6932	2486749,611
50	-60	198	40.788,000	201,9603922	Válido	181,96039	1,189207	216,388593	236,388593	2192489147	120,6932	18165805,09
50	-60	97	19.982,000	141,3577023	Válido	121,3577	1,189207	144,319443	164,319443	433809817,9	120,6932	3594318,635

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20^4	r-0,3068	Kjc-20^4 / r - 0,3068
50	-60	86,1	17.736,600	133,1788271	Válido	113,17883	1,189207	134,5930665	154,5930665	328163860,5	120,6932	2718992,126
50	-60	80,6	16.603,600	128,8549572	Válido	108,85496	1,189207	129,4510896	149,4510896	280816641,8	120,6932	2326698,122
50	-60	96,8	19.940,800	141,2118975	Válido	121,2119	1,189207	144,1460509	164,1460509	431728774,9	120,6932	3577076,214
50	-60	68,2	14.049,200	118,5293213	Válido	98,529321	1,189207	117,1717699	137,1717699	188491582,3	120,6932	1561741,525
50	-60	95,1	19.590,600	139,9664245	Válido	119,96642	1,189207	142,6649256	162,6649256	414256047,7	120,6932	3432306,44
50	-60	147,4	30.364,400	174,2538378	Válido	154,25384	1,189207	183,4397615	203,4397615	1132332332	120,6932	9381906,617
50	-60	68,1	14.028,600	118,4423911	Válido	98,442391	1,189207	117,0683919	137,0683919	187827254,5	120,6932	1556237,257
50	-60	49,9	10.279,400	101,3873759	Válido	81,387376	1,189207	96,78644654	116,7864465	87752233,9	120,6932	727068,583
50	-60	46,7	9.620,200	98,08261824	Válido	78,082618	1,189207	92,85640516	112,8564052	74344263,88	120,6932	615977,2372
50	-60	63,1	12.998,600	114,0114029	Válido	94,011403	1,189207	111,7990293	131,7990293	156225574,6	120,6932	1294402,457
50	-60	142,3	29.313,800	171,2127332	Válido	151,21273	1,189207	179,8232582	199,8232582	1045643035	120,6932	8663644,97
50	-60	69,2	14.255,200	119,3951423	Válido	99,395142	1,189207	118,2014104	138,2014104	195204863,8	120,6932	1617364,224
50	-60	129,9	26.759,400	163,5830065	Válido	143,58301	1,189207	170,7499329	190,7499329	850045487,8	120,6932	7043027,178
50	-60	75,1	15.470,600	124,3808667	Válido	104,38087	1,189207	124,1304693	144,1304693	237417971,4	120,6932	1967119,701
50	-60	76,5	15.759,000	125,5348557	Válido	105,53486	1,189207	125,5028013	145,5028013	248092524,6	120,6932	2055563,401
50	-60	48	9.888,000	99,43842316	Válido	79,438423	1,189207	94,46873802	114,468738	79643888,41	120,6932	659887,1221
50	-60	81,9	16.871,400	129,8899534	Válido	109,88995	1,189207	130,6819145	150,6819145	291649981,3	120,6932	2416457,441
50	-60	163,2	33.619,200	183,3553926	Válido	163,35539	1,189207	194,2633952	214,2633952	1424176774	120,6932	11799975,26
50	-60	127,4	26.244,400	162,0012346	Válido	142,00123	1,189207	168,8688785	188,8688785	813202071,6	120,6932	6737762,125
50	-60	76,2	15.697,200	125,2884671	Válido	105,28847	1,189207	125,2097943	145,2097943	245783773,5	120,6932	2036434,311
50	-60	129,1	26.594,600	163,0785087	Válido	143,07851	1,189207	170,1499806	190,1499806	838161320,6	120,6932	6944561,256
50	-60	176,8	36.420,800	190,8423433	Válido	170,84234	1,189207	203,1669302	223,1669302	1703774345	120,6932	14116572,8
50	-60	86,2	17.757,200	133,2561443	Válido	113,25614	1,189207	134,6850126	154,6850126	329061509,5	120,6932	2726429,571
50	-60	94,4	19.446,400	139,4503496	Válido	119,45035	1,189207	142,0512056	162,0512056	407173679	120,6932	3373625,681
100	-60	415,3	85.551,800	292,4923931	Válido	272,49239	1,414214	385,3624379	405,3624379	22053499959	120,6932	182723632,8
100	-60	225,7	46.494,200	215,6251377	Válido	195,62514	1,414214	276,6557228	296,6557228	5858124988	120,6932	48537324,29
100	-60	230	47.380,000	217,6694742	Válido	197,66947	1,414214	279,5468513	299,5468513	6106866407	120,6932	50598264,09
100	-60	131,1	27.006,600	164,3368492	Válido	144,33685	1,414214	204,1231297	224,1231297	1736076561	120,6932	14384211,88
100	-60	57,5	11.845,000	108,8347371	Válido	88,834737	1,414214	125,63129	145,63129	249110066,1	120,6932	2063994,211
100	-60	82,8	17.056,800	130,6016845	Válido	110,60168	1,414214	156,4144023	176,4144023	598558989,3	120,6932	4959343,106
100	-60	88,3	18.189,800	134,8695666	Válido	114,86957	1,414214	162,450099	182,450099	696433929,9	120,6932	5770283,081
100	-60	113	23.278,000	152,5712948	Válido	132,57129	1,414214	187,4841231	207,4841231	1235543338	120,6932	10237058,41
100	-60	64	13.184,000	114,8216008	Válido	94,821601	1,414214	134,0979938	154,0979938	323362104,1	120,6932	2679207,313
100	-60	107,7	22.186,200	148,9503273	Válido	128,95033	1,414214	182,3633017	202,3633017	1105986399	120,6932	9163618,161
100	-60	112,3	23.133,800	152,0979947	Válido	132,09799	1,414214	186,8147757	206,8147757	1217993278	120,6932	10091647,89
100	-60	160,8	33.124,800	182,0021978	Válido	162,0022	1,414214	229,1057052	249,1057052	2755139650	120,6932	22827629,48
100	-60	265,4	54.672,400	233,8212993	Válido	213,8213	1,414214	302,3889814	322,3889814	8361108288	120,6932	69275719,66
100	-60	106,3	21.897,800	147,9790526	Válido	127,97905	1,414214	180,9897118	200,9897118	1073039117	120,6932	8890634,414
100	-60	153,5	31.621,000	177,8229457	Válido	157,82295	1,414214	223,1953502	243,1953502	2481650230	120,6932	20561640,84
100	-60	150,2	30.941,200	175,9011086	Válido	155,90111	1,414214	220,4774621	240,4774621	2362962366	120,6932	19578255,99

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20^4	r-0,3068	Kjc-20^4 / r - 0,3068
100	-60	168,9	34.793,400	186,5298904	Válido	166,52989	1,414214	235,5088295	255,5088295	3076300640	120,6932	25488599,53
100	-60	86,1	17.736,600	133,1788271	Válido	113,17883	1,414214	160,0590323	180,0590323	656327721	120,6932	5437984,253
100	-60	282,6	58.215,600	241,2790915	Válido	221,27909	1,414214	312,9358923	332,9358923	9590064104	120,6932	79458197,35
100	-60	115,5	23.793,000	154,2497974	Válido	134,2498	1,414214	189,8578842	209,8578842	1299315284	120,6932	10765439,02
100	-60	128,1	26.388,600	162,4456832	Válido	142,44568	1,414214	201,4486171	221,4486171	1646861822	120,6932	13645025,75
100	-60	102,2	21.053,200	145,0972088	Válido	125,09721	1,414214	176,9141693	196,9141693	979603820,3	120,6932	8116478,975
100	-60	68,5	14.111,000	118,7897302	Válido	98,78973	1,414214	139,7097763	159,7097763	380984396	120,6932	3156635,138
100	-60	30,4	6.262,400	79,13532713	Válido	59,135327	1,414214	83,62998164	103,6299816	48915669,93	120,6932	405289,3612
100	-60	94,5	19.467,000	139,5241915	Válido	119,52419	1,414214	169,0327326	189,0327326	816362880,3	120,6932	6763950,913
100	-60	63,3	13.039,800	114,1919437	Válido	94,191944	1,414214	133,2075242	153,2075242	314858213,1	120,6932	2608748,572
100	-60	89,4	18.416,400	135,7070374	Válido	115,70704	1,414214	163,6344616	183,6344616	716966868,3	120,6932	5940408,145
100	-60	132,7	27.336,200	165,3366263	Válido	145,33663	1,414214	205,537028	225,537028	1784679727	120,6932	14786911,99
100	-60	241,9	49.831,400	223,2294783	Válido	203,22948	1,414214	287,4098845	307,4098845	6823493794	120,6932	56535859,47
100	-60	191,9	39.531,400	198,8250487	Válido	178,82505	1,414214	252,8968092	272,8968092	4090471768	120,6932	33891484,92
25	-60	128,7	26.512,200	162,8256737	Válido					416126261,3	120,6932	3447802,041
25	-60	176	36.256,000	190,4100838	Válido					843298173,6	120,6932	6987122,502
25	-60	131,7	27.130,200	164,7124768	Válido					438554837,8	120,6932	3633633,36
25	-60	150,4	30.982,400	176,0181809	Válido					592517033	120,6932	4909282,652
25	-60	133,7	27.542,200	165,9584285	Válido					453854572,7	120,6932	3760398,868
25	-60	78,7	16.212,200	127,3271377	Válido					132689998,7	120,6932	1099399,127
25	-60	678,2	139.709,200	373,7769388	Censurado					0	120,6932	2,184139821
25	-60	46,1	9.496,600	97,45050026	Válido					35982961,89	120,6932	298135,7847
25	-60	369,1	76.034,600	275,7437216	Censurado					0	120,6932	2,184139821
25	-60	275,9	56.835,400	238,4017617	Válido					2275226038	120,6932	18851319,19
25	-60	687,7	141.666,200	376,3857064	Censurado					0	120,6932	2,184139821
25	-60	140,7	28.984,200	170,2474669	Válido					509599080,2	120,6932	4222268,365
25	-60	89,1	18.354,600	135,4791497	Válido					177833800,3	120,6932	1473436,783
25	-60	87,8	18.086,800	134,4871741	Válido					171801655	120,6932	1423457,618
25	-60	219,5	45.217,000	212,6428931	Válido					1377247421	120,6932	11411143,47
25	-60	427,1	87.982,600	296,6186103	Censurado					0	120,6932	2,184139821
25	-60	197,6	40.705,600	201,7562886	Válido					1091334248	120,6932	9042218,182
25	-60	64,1	13.204,600	114,9112701	Válido					81146751,92	120,6932	672339,0541
25	-60	234,5	48.307,000	219,7885347	Válido					1593243836	120,6932	13200775,49
25	-60	133,7	27.542,200	165,9584285	Válido					453854572,7	120,6932	3760398,868
25	-60	38,4	7.910,400	88,9404295	Válido					22588944,53	120,6932	187160,0433
25	-60	116,3	23.957,800	154,783074	Válido					330020888	120,6932	2734378,474
25	-60	166,1	34.216,600	184,9772959	Válido					740792750,6	120,6932	6137816,8
25	-60	217,1	44.722,600	211,4771855	Válido					1344213155	120,6932	11137439,02
25	-60	129	26.574,000	163,0153367	Válido					418341020,6	120,6932	3466152,365
25	-60	373,6	76.961,600	277,4195379	Censurado					0	120,6932	2,184139821

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20^4	r-0,3068	Kjc-20^4 / r - 0,3068	
25	-60	164,6	33.907,600	184,140164	Válido					725871010,5	120,6932	6014183,156	
25	-60	77,7	16.006,200	126,5156117	Válido					128722084,2	120,6932	1066523,086	
25	-60	200,2	41.241,200	203,0792949	Válido					1123458215	120,6932	9308380,379	
25	-60	63,6	13.101,600	114,4622208	Válido					79621912,89	120,6932	659705,0446	
25	-60	55	11.330,000	106,4424727	Válido					55835283,59	120,6932	462621,6191	
T. Válidos					121							<i>Soma dos K0</i>	1141650674
T. Censurados					5							<i>Somatoria ^1/4</i>	183,8159992
												anterior + 20	203,8159992
												Kjc Médio	187,7137177
													157,7137177
													2,25305311
												LN	0,812286234
												T - T0	42,7506245
25	-40	155,4	32.012,400	178,9200939	Válido					637845141,6	76,6932	8316840,889	
25	-40	203,4	41.900,400	204,695872	Válido					1163667099	76,6932	15173015,33	
25	-40	275,9	56.835,400	238,4017617	Válido					2275226038	76,6932	29666594,14	
25	-40	349,2	71.935,200	268,2073824	Censurado					0	76,6932	3,430412845	
25	-40	165,5	34.093,000	184,6428986	Válido					734804848,9	76,6932	9581095,181	
25	-40	311,7	64.210,200	253,3973165	Válido					2967450160	76,6932	38692480,69	
25	-40	254,5	52.427,000	228,9694303	Válido					1906913682	76,6932	24864181,98	
25	-40	548,6	113.011,600	336,1719798	Censurado					0	76,6932	3,430412845	
25	-40	773,9	159.423,400	399,2785995	Censurado					0	76,6932	3,430412845	
25	-40	758,7	156.292,200	395,3380832	Censurado					0	76,6932	3,430412845	
25	-40	139,3	28.695,800	169,3983471	Válido					498176423,4	76,6932	6495705,27	
25	-40	1544,1	318.084,600	563,9898935	Censurado					0	76,6932	3,430412845	
25	-40	136,6	28.139,600	167,7486215	Válido					476533843,6	76,6932	6213508,415	
25	-40	1433,6	295.321,600	543,4350007	Censurado					0	76,6932	3,430412845	
25	-40	1337,1	275.442,600	524,826257	Censurado					0	76,6932	3,430412845	
25	-40	483,2	99.539,200	315,498336	Censurado					0	76,6932	3,430412845	
25	-40	1573,3	324.099,800	569,2976374	Censurado					0	76,6932	3,430412845	
25	-40	619,9	127.699,400	357,3505282	Censurado					0	76,6932	3,430412845	
25	-40	562,8	115.936,800	340,4949339	Censurado					0	76,6932	3,430412845	
25	-40	264,8	54.548,800	233,5568453	Válido					2079955231	76,6932	27120464,8	
25	-40	1337,2	275.463,200	524,8458821	Censurado					0	76,6932	3,430412845	
25	-40	1174	241.844,000	491,7763719	Censurado					0	76,6932	3,430412845	
25	-40	1714,3	353.145,800	594,2607172	Censurado					0	76,6932	3,430412845	
25	-40	61,6	12.689,600	112,6481247	Válido					73679476,71	76,6932	960704,1655	
25	-40	251	51.706,000	227,3895336	Válido					1849896113	76,6932	24120731,86	
25	-40	113,2	23.319,200	152,706254	Válido					310145554,3	76,6932	4043977,228	
25	-40	233,2	48.039,200	219,1784661	Válido					1573872452	76,6932	20521668,83	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20^4	r-0,3068	Kjc-20^4 / r - 0,3068
25	-40	1127,9	232.347,400	482,0242732	Censurado					0	76,6932	3,430412845
25	-40	283	58.298,000	241,4497877	Válido					2404922433	76,6932	31357700,98
25	-40	195,2	40.211,200	200,5273049	Válido					1062115127	76,6932	13848882,65
50	-40	187	38.522,000	196,2702219	Válido	176,27022	1,189207	209,621802	229,621802	1930837836	76,6932	25176128,21
50	-40	107,5	22.145,000	148,8119619	Válido	128,81196	1,189207	153,1841016	173,1841016	550623541,1	76,6932	7179561,436
50	-40	245	50.470,000	224,6552915	Válido	204,65529	1,189207	243,3775288	263,3775288	3508503451	76,6932	45747255,97
50	-40	119	24.514,000	156,5694734	Válido	136,56947	1,189207	162,4093895	182,4093895	695736094,4	76,6932	9071679,032
50	-40	313,1	64.498,600	253,9657457	Válido	233,96575	1,189207	278,2337295	298,2337295	5992928669	76,6932	78141591,02
50	-40	205,3	42.291,800	205,6497022	Válido	185,6497	1,189207	220,7759467	240,7759467	2375784382	76,6932	30977770,93
50	-40	217,1	44.722,600	211,4771855	Válido	191,47719	1,189207	227,7060314	247,7060314	2688426309	76,6932	35054298,28
50	-40	308,7	63.592,200	252,1749393	Válido	232,17494	1,189207	276,1040897	296,1040897	5811541698	76,6932	75776492,54
50	-40	274,2	56.485,200	237,6661524	Válido	217,66615	1,189207	258,8501371	278,8501371	4489454740	76,6932	58537846,12
50	-40	455,2	93.771,200	306,2208353	Válido	286,22084	1,189207	340,3758539	360,3758539	13422548294	76,6932	175016146,1
50	-40	167	34.402,000	185,4777615	Válido	165,47776	1,189207	196,7873313	216,7873313	1499645279	76,6932	19553823,28
50	-40	49,1	10.114,600	100,5713677	Válido	80,571368	1,189207	95,81604373	115,8160437	84285513,88	76,6932	1098995,92
50	-40	93,8	19.322,800	139,0064747	Válido	119,00647	1,189207	141,5233464	161,5233464	401155135,9	76,6932	5230648,035
50	-40	107,4	22.124,400	148,7427309	Válido	128,74273	1,189207	153,1017716	173,1017716	549440747,8	76,6932	7164139,035
50	-40	167	34.402,000	185,4777615	Válido	165,47776	1,189207	196,7873313	216,7873313	1499645279	76,6932	19553823,28
50	-40	212,8	43.836,800	209,3723955	Válido	189,3724	1,189207	225,2030001	245,2030001	2572152343	76,6932	33538206,03
50	-40	122,7	25.276,200	158,9849049	Válido	138,9849	1,189207	165,2818378	185,2818378	746277818,3	76,6932	9730690,834
50	-40	219,3	45.175,800	212,545995	Válido	192,546	1,189207	228,9770672	248,9770672	2748957050	76,6932	35843556,53
50	-40	168,9	34.793,400	186,5298904	Válido	166,52989	1,189207	198,0385305	218,0385305	1538150320	76,6932	20055889,18
50	-40	272,7	56.176,200	237,0151894	Válido	217,01519	1,189207	258,0760073	278,0760073	4435989652	76,6932	57840716,67
50	-40	60,6	12.483,600	111,7300318	Válido	91,730032	1,189207	109,0860064	129,0860064	141604211,9	76,6932	1846372,455
50	-40	271,9	56.011,400	236,667277	Válido	216,66728	1,189207	257,6622674	277,6622674	4407611391	76,6932	57470693,51
50	-40	386,6	79.639,600	282,2048901	Válido	262,20489	1,189207	311,8159209	331,8159209	9453511213	76,6932	123264007,9
50	-40	308,8	63.612,800	252,2157806	Válido	232,21578	1,189207	276,1526585	296,1526585	5815631956	76,6932	75829825,28
50	-40	349,4	71.976,400	268,2841777	Válido	248,28418	1,189207	295,2613107	315,2613107	7600220161	76,6932	99099009,57
50	-40	166,5	34.299,000	185,199892	Válido	165,19989	1,189207	196,456887	216,456887	1489597834	76,6932	19422814,98
50	-40	137,8	28.386,800	168,4838271	Válido	148,48383	1,189207	176,5780237	196,5780237	972179831	76,6932	12676219,42
50	-40	313,1	64.498,600	253,9657457	Válido	233,96575	1,189207	278,2337295	298,2337295	5992928669	76,6932	78141591,02
50	-40	139,9	28.819,400	169,7627757	Válido	149,76278	1,189207	178,0989584	198,0989584	1006110121	76,6932	13118635,31
50	-40	50,6	10.423,600	102,0960332	Válido	82,096033	1,189207	97,62918682	117,6291868	90848693,89	76,6932	1184572,998
50	-40	251,8	51.870,800	227,7516191	Válido	207,75162	1,189207	247,0597036	267,0597036	3725698132	76,6932	48579249,95
50	-40	210	43.260,000	207,9903844	Válido	187,99038	1,189207	223,5595027	243,5595027	2497885571	76,6932	32569844,14
100	-40	75,5	15.553,000	124,7116675	Válido	104,71167	1,414214	148,0846603	168,0846603	480883962,1	76,6932	6270229,461
100	-40	79,1	16.294,600	127,6503036	Válido	107,6503	1,414214	152,2405193	172,2405193	537181474,1	76,6932	7004290,786
100	-40	187,7	38.666,200	196,6372294	Válido	176,63723	1,414214	249,8027655	269,8027655	3893937423	76,6932	50772916,29
100	-40	214,1	44.104,600	210,0109521	Válido	190,01095	1,414214	268,7160655	288,7160655	5214042031	76,6932	67985714,91

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20^4	r-0,3068	Kjc-20^4 / r - 0,3068	
100	-40	91,5	18.849,000	137,2916603	Válido	117,29166	1,414214	165,8754568	185,8754568	757056909,6	76,6932	9871239,036	
100	-40	167,8	34.566,800	185,9214888	Válido	165,92149	1,414214	234,6484198	254,6484198	3031590484	76,6932	39528804,17	
100	-40	142,5	29.355,000	171,3330091	Válido	151,33301	1,414214	214,0171939	234,0171939	2097947721	76,6932	27355068,26	
100	-40	153,4	31.600,400	177,7650134	Válido	157,76501	1,414214	223,1134217	243,1134217	2478008469	76,6932	32310667,3	
100	-40	110,9	22.845,400	151,1469484	Válido	131,14695	1,414214	185,469793	205,469793	1183294237	76,6932	15428932,91	
100	-40	112,4	23.154,400	152,1656992	Válido	132,1657	1,414214	186,9105242	206,9105242	1220492239	76,6932	15913956,38	
100	-40	99,6	20.517,600	143,2396593	Válido	123,23966	1,414214	174,2871976	194,2871976	922703031,8	76,6932	12031093,13	
100	-40	108,2	22.289,200	149,2956798	Válido	129,29568	1,414214	182,8517039	202,8517039	1117882215	76,6932	14576027,79	
100	-40	92,1	18.972,600	137,7410614	Válido	117,74106	1,414214	166,5110059	186,5110059	768726367,4	76,6932	10023396,69	
100	-40	160,5	33.063,000	181,8323404	Válido	161,83234	1,414214	228,8654906	248,8654906	2743602882	76,6932	35773743,73	
100	-40	96	19.776,000	140,6271666	Válido	120,62717	1,414214	170,5925751	190,5925751	846916315,4	76,6932	11042912,74	
100	-40	166,8	34.360,800	185,3666637	Válido	165,36666	1,414214	233,8637785	253,8637785	2991244059	76,6932	39002728,53	
100	-40	141,2	29.087,200	170,5496995	Válido	150,5497	1,414214	212,9094268	232,9094268	2054847344	76,6932	26793083,92	
100	-40	186,7	38.460,200	196,1127227	Válido	176,11272	1,414214	249,0610009	269,0610009	3847892376	76,6932	50172536,49	
100	-40	81	16.686,000	129,1743008	Válido	109,1743	1,414214	154,3957769	174,3957769	568252910,6	76,6932	7409430,179	
100	-40	95,6	19.693,600	140,3338876	Válido	120,33389	1,414214	170,1778158	190,1778158	838709922,8	76,6932	10935909,87	
100	-40	86,1	17.736,600	133,1788271	Válido	113,17883	1,414214	160,0590323	180,0590323	656327721	76,6932	8557834,606	
100	-40	63,5	13.081,000	114,3721994	Válido	94,372199	1,414214	133,4624443	153,4624443	317275325,5	76,6932	4136942,069	
100	-40	40	8.240,000	90,77444574	Válido	70,774446	1,414214	100,090181	120,090181	100361212,4	76,6932	1308606,401	
100	-40	94,8	19.528,800	139,7454829	Válido	119,74548	1,414214	169,345686	189,345686	822425468,1	76,6932	10723577,42	
100	-40	272,3	56.093,800	236,8412971	Válido	216,8413	1,414214	306,6599032	326,6599032	8843577316	76,6932	115311100,8	
100	-40	282,2	58.133,200	241,1082744	Válido	221,10827	1,414214	312,6943205	332,6943205	9560486057	76,6932	124658849,2	
100	-40	175,4	36.132,400	190,085244	Válido	170,08524	1,414214	240,5368589	260,5368589	3347545905	76,6932	43648536,05	
100	-40	102,6	21.135,600	145,3808791	Válido	125,38088	1,414214	177,3153396	197,3153396	988519482,4	76,6932	12889271,57	
100	-40	124	25.544,000	159,8249042	Válido	139,8249	1,414214	197,7422759	217,7422759	1528967003	76,6932	19936148,23	
100	-40	96,4	19.858,400	140,9198354	Válido	120,91984	1,414214	171,0064711	191,0064711	855165516,5	76,6932	11150473,79	
					Válidos	77						Somatoria	2416993722
					Censurados	15						Somatoria^1/4	221,727153
											K0	241,727153	
											Kjc Médio	222,3038544	
												192,3038544	
												2,747197919	
											Ln	1,010581454	
											T-T0	53,18690191	
25	-20	258,8	53.312,800	230,8956474	Válido					1978201225	62,6932	31553680,87	
25	-20	723,7	149.082,200	386,1116419	Censurado					0	62,6932	4,073937366	
25	-20	1133,7	233.542,200	483,2620407	Censurado					0	62,6932	4,073937366	
25	-20	914,9	188.469,400	434,1306255	Censurado					0	62,6932	4,073937366	
25	-20	1554,5	320.227,000	565,8860309	Censurado					0	62,6932	4,073937366	
25	-20	1497,2	308.423,200	555,3586229	Censurado					0	62,6932	4,073937366	
25	-20	1499	308.794,000	555,6923609	Censurado					0	62,6932	4,073937366	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20^4	r-0,3068	Kjc-20^4 / r - 0,3068
25	-20	1575	324.450,000	569,6051264	Censurado					0	62,6932	4,073937366
25	-20	1480,1	304.900,600	552,178051	Censurado					0	62,6932	4,073937366
25	-20	1560,5	321.463,000	566,9770718	Censurado					0	62,6932	4,073937366
25	-20	78,9	16.253,400	127,488823	Válido					133491382,3	62,6932	2129280,086
25	-20	102,7	21.156,200	145,4517102	Válido					247688786	62,6932	3950807,839
25	-20	772,5	159.135,000	398,9172847	Censurado					0	62,6932	4,073937366
25	-20	798,3	164.449,800	405,5241053	Censurado					0	62,6932	4,073937366
25	-20	1340	276.040,000	525,3950894	Censurado					0	62,6932	4,073937366
25	-20	1348,6	277.811,600	527,0783623	Censurado					0	62,6932	4,073937366
25	-20	1361,1	280.386,600	529,5154389	Censurado					0	62,6932	4,073937366
25	-20	1368,5	281.911,000	530,9529169	Censurado					0	62,6932	4,073937366
25	-20	1368,6	281.931,600	530,9723157	Censurado					0	62,6932	4,073937366
25	-20	1371,1	282.446,600	531,4570538	Censurado					0	62,6932	4,073937366
25	-20	1381,3	284.547,800	533,4302204	Censurado					0	62,6932	4,073937366
25	-20	1391	286.546,000	535,2999159	Censurado					0	62,6932	4,073937366
25	-20	1408,2	290.089,200	538,5992945	Censurado					0	62,6932	4,073937366
25	-20	1436,3	295.877,800	543,9465047	Censurado					0	62,6932	4,073937366
25	-20	1459,7	300.698,200	548,3595536	Censurado					0	62,6932	4,073937366
25	-20	1472,5	303.335,000	550,7585678	Censurado					0	62,6932	4,073937366
25	-20	1473,7	303.582,200	550,9829398	Censurado					0	62,6932	4,073937366
25	-20	1496,6	308.299,600	555,2473323	Censurado					0	62,6932	4,073937366
25	-20	1524,5	314.047,000	560,398965	Censurado					0	62,6932	4,073937366
25	-20	1547,8	318.846,800	564,6652105	Censurado					0	62,6932	4,073937366
25	-20	1553,3	319.979,800	565,6675702	Censurado					0	62,6932	4,073937366
50	-20	195,2	40.211,200	200,5273049	Válido	180,5273	1,189207	214,6843554	234,6843554	2124230253	62,6932	33882945,1
50	-20	180,6	37.203,600	192,8823476	Válido	172,88235	1,189207	205,5929178	225,5929178	1786621683	62,6932	28497854,36
50	-20	328,8	67.732,800	260,2552593	Válido	240,25526	1,189207	285,7132638	305,7132638	6663794707	62,6932	106292145
50	-20	168,1	34.628,600	186,0876138	Válido	166,08761	1,189207	197,512572	217,512572	1521874982	62,6932	24274960,95
50	-20	362,3	74.633,800	273,191874	Válido	253,19187	1,189207	301,097578	321,097578	8219190536	62,6932	131101786,7
50	-20	326,5	67.259,000	259,3434017	Válido	239,3434	1,189207	284,6288762	304,6288762	6563202928	62,6932	104687636,4
50	-20	655,6	135.053,600	367,4963945	Censurado	347,49639	1,189207	413,2451848	433,2451848	0	62,6932	5,761417506
50	-20	648,8	133.652,800	365,5855577	Censurado	345,58556	1,189207	410,9728041	430,9728041	0	62,6932	5,761417506
50	-20	1017	209.502,000	457,7138844	Censurado	437,71388	1,189207	520,5324657	540,5324657	0	62,6932	5,761417506
50	-20	486,8	100.280,800	316,6714386	Censurado	296,67144	1,189207	352,8037856	372,8037856	0	62,6932	5,761417506
50	-20	1619	333.514,000	577,5067099	Censurado	557,50671	1,189207	662,9909461	682,9909461	0	62,6932	5,761417506
50	-20	256	52.736,000	229,6432015	Válido	209,6432	1,189207	249,3091868	269,3091868	3863252807	62,6932	61621560,35
50	-20	695	143.170,000	378,3781178	Censurado	358,37812	1,189207	426,1858075	446,1858075	0	62,6932	5,761417506
50	-20	417	85.902,000	293,0904297	Válido	273,09043	1,189207	324,7610821	344,7610821	11123870365	62,6932	177433443,6
50	-20	1582	325.892,000	570,8695122	Censurado	550,86951	1,189207	655,0979434	675,0979434	0	62,6932	5,761417506
50	-20	807	166.242,000	407,7278504	Censurado	387,72785	1,189207	461,0887184	481,0887184	0	62,6932	5,761417506

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20^4	r-0,3068	Kjc-20^4 / r - 0,3068
50	-20	447	92.082,000	303,4501607	Válido	283,45016	1,189207	337,0809478	357,0809478	12910314607	62,6932	205928467,6
50	-20	502	103.412,000	321,5773624	Censurado	301,57736	1,189207	358,6379451	378,6379451	0	62,6932	5,761417506
50	-20	380	78.280,000	279,7856322	Válido	259,78563	1,189207	308,9389222	328,9389222	9109415433	62,6932	145301491
50	-20	291	59.946,000	244,8387224	Válido	224,83872	1,189207	267,3798084	287,3798084	5111100625	62,6932	81525598,07
50	-20	259	53.354,000	230,984848	Válido	210,98485	1,189207	250,9046824	270,9046824	3963100309	62,6932	63214197,22
50	-20	480	98.880,000	314,4519041	Censurado	294,4519	1,189207	350,1642994	370,1642994	0	62,6932	5,761417506
50	-20	1266	260.796,000	510,6818971	Censurado	490,6819	1,189207	583,5224032	603,5224032	0	62,6932	5,761417506
50	-20	330	67.980,000	260,7297451	Válido	240,72975	1,189207	286,2775257	306,2775257	6716592804	62,6932	107134311,3
50	-20	162	33.372,000	182,6800482	Válido	162,68005	1,189207	193,4602708	213,4602708	1400771074	62,6932	22343269,67
50	-20	392	80.752,000	284,1689638	Válido	264,16896	1,189207	314,1516113	334,1516113	9739959848	62,6932	155359111,5
50	-20	555	114.330,000	338,127195	Censurado	318,1272	1,189207	378,3191238	398,3191238	0	62,6932	5,761417506
50	-20	820	168.920,000	410,9987835	Censurado	390,99878	1,189207	464,9785352	484,9785352	0	62,6932	5,761417506
50	-20	512	105.472,000	324,7645301	Censurado	304,76453	1,189207	362,4281476	382,4281476	0	62,6932	5,761417506
50	-20	139	28.634,000	169,2158385	Válido	149,21584	1,189207	177,4485368	197,4485368	991493087,2	62,6932	15815002,06
100	-20	193	39.758,000	199,3940822	Válido	179,39408	1,414214	253,701544	273,701544	4142785440	62,6932	66080299,61
100	-20	58,6	12.071,600	109,8708333	Válido	89,870833	1,414214	127,0965513	147,0965513	260936639,4	62,6932	4162120,283
100	-20	186,1	38.336,600	195,7973442	Válido	175,79734	1,414214	248,6149884	268,6149884	3820403469	62,6932	60938083,7
100	-20	188,4	38.810,400	197,0035533	Válido	177,00355	1,414214	250,3208256	270,3208256	3926340233	62,6932	62627848,52
100	-20	191,7	39.490,200	198,721413	Válido	178,72141	1,414214	252,7502462	272,7502462	4080997693	62,6932	65094742,22
100	-20	130,8	26.944,800	164,1487131	Válido	144,14871	1,414214	203,857065	223,857065	1727042675	62,6932	27547527,88
100	-20	373,5	76.941,000	277,3824075	Válido	257,38241	1,414214	363,9936914	383,9936914	17553973034	62,6932	279998038,6
100	-20	371,9	76.611,400	276,7876442	Válido	256,78764	1,414214	363,1525691	383,1525691	17392278605	62,6932	277418900,4
100	-20	315,9	65.075,400	255,0988044	Válido	235,0988	1,414214	332,4799177	352,4799177	12219731778	62,6932	194913192,8
100	-20	334,9	68.989,400	262,6583332	Válido	242,65833	1,414214	343,1707058	363,1707058	13868862163	62,6932	221217965,6
100	-20	133,4	27.480,400	165,7721328	Válido	145,77213	1,414214	206,1529272	226,1529272	1806167498	62,6932	28809623,66
100	-20	112,2	23.113,200	152,0302601	Válido	132,03026	1,414214	186,7189845	206,7189845	1215497045	62,6932	19388020,47
100	-20	212,5	43.775,000	209,2247595	Válido	189,22476	1,414214	267,6042213	287,6042213	5128281299	62,6932	81799641,74
100	-20	231,2	47.627,200	218,2365689	Válido	198,23657	1,414214	280,3488443	300,3488443	6177248610	62,6932	98531397,51
100	-20	247,3	50.943,800	225,7073326	Válido	205,70733	1,414214	290,9140997	310,9140997	7162408427	62,6932	114245379,5
100	-20	212,3	43.733,800	209,1262776	Válido	189,12628	1,414214	267,4649468	287,4649468	5117613590	62,6932	81629484,38
100	-20	224,4	46.226,400	215,0032558	Válido	195,00326	1,414214	275,776249	295,776249	5783988770	62,6932	92258630,44
100	-20	100,6	20.723,600	143,956938	Válido	123,95694	1,414214	175,3015829	195,3015829	944372539,6	62,6932	15063396,66
100	-20	123,7	25.482,200	159,6314505	Válido	139,63145	1,414214	197,4686911	217,4686911	1520522986	62,6932	24253395,68
100	-20	82,8	17.056,800	130,6016845	Válido	110,60168	1,414214	156,4144023	176,4144023	598558989,3	62,6932	9547430,811
100	-20	223	45.938,000	214,3315189	Válido	194,33152	1,414214	274,8262696	294,8262696	5704702120	62,6932	90993953,42
100	-20	74,4	15.326,400	123,7998384	Válido	103,79984	1,414214	146,7951393	166,7951393	464351338,4	62,6932	7406725,744
100	-20	683,1	140.718,600	375,1247792	Censurado	355,12478	1,414214	502,2222791	522,2222791	0	62,6932	8,14787473
100	-20	288,5	59.431,000	243,7847411	Válido	223,78474	1,414214	316,4794159	336,4794159	10031869493	62,6932	160015272,7
100	-20	299,8	61.758,800	248,5131787	Válido	228,51318	1,414214	323,1664365	343,1664365	10906992078	62,6932	173974084,6
100	-20	301,3	62.067,800	249,1341004	Válido	229,1341	1,414214	324,0445524	344,0445524	11026023136	62,6932	175872712,5

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20^4	r-0,3068	Kjc-20^4 / r - 0,3068	
100	-20	384,1	79.124,600	281,2909526	Válido	261,29095	1,414214	369,5212089	389,5212089	18644789305	62,6932	297397314,3	
100	-20	324,6	66.867,600	258,5877027	Válido	238,5877	1,414214	337,413965	357,413965	12961408950	62,6932	206743457,8	
100	-20	588,7	121.272,200	348,2415828	Válido	328,24158	1,414214	464,2036981	484,2036981	46433816847	62,6932	740651567,4	
100	-20	318,2	65.549,200	256,02578	Válido	236,02578	1,414214	333,7908591	353,7908591	12413600285	62,6932	198005529,9	
200	-20	117	24.102,000	155,2481884	Válido	135,24819	1,681793	227,4594336	247,4594336	2676799320	62,6932	42696804,76	
200	-20	234	48.204,000	219,5540936	Válido	199,55409	1,681793	335,6086439	355,6086439	12686229143	62,6932	202354149,1	
200	-20	179	36.874,000	192,0260399	Válido	172,02604	1,681793	289,3121606	309,3121606	7005945497	62,6932	111749687,3	
200	-20	175	36.050,000	189,8683755	Válido	169,86838	1,681793	285,683416	305,683416	6661010537	62,6932	106247735,6	
200	-20	162	33.372,000	182,6800482	Válido	162,68005	1,681793	273,5941387	293,5941387	5603084296	62,6932	89373078,68	
200	-20	166	34.196,000	184,921605	Válido	164,92161	1,681793	277,3639729	297,3639729	5918343906	62,6932	94401688	
200	-20	162	33.372,000	182,6800482	Válido	162,68005	1,681793	273,5941387	293,5941387	5603084296	62,6932	89373078,68	
200	-20	179	36.874,000	192,0260399	Válido	172,02604	1,681793	289,3121606	309,3121606	7005945497	62,6932	111749687,3	
200	-20	199	40.994,000	202,4697508	Válido	182,46975	1,681793	306,8763187	326,8763187	8868568054	62,6932	141459808,3	
200	-20	239	49.234,000	221,8873588	Válido	201,88736	1,681793	339,5327126	359,5327126	13290046261	62,6932	211985450,8	
200	-20	112	23.072,000	151,8947004	Válido	131,8947	1,681793	221,8195615	241,8195615	2421025531	62,6932	38617035,52	
200	-20	236	48.616,000	220,4903626	Válido	200,49036	1,681793	337,1832544	357,1832544	12925995256	62,6932	206178584,8	
200	-20	125	25.750,000	160,4680654	Válido	140,46807	1,681793	236,2381852	256,2381852	3114586458	62,6932	49679813,09	
200	-20	168	34.608,000	186,0322553	Válido	166,03226	1,681793	279,2318565	299,2318565	6079387909	62,6932	96970451,48	
200	-20	187	38.522,000	196,2702219	Válido	176,27022	1,681793	296,4499954	316,4499954	7723351343	62,6932	123192807,9	
					Válidos	63						Somatoria	7094663353
					Censurados	43						Somatoria^1/4	290,2237492
										K0	310,2237492		
										Kjc Médio	284,8001488		
											254,8001488		
											3,640002125		
										Ln	1,291984266		
										T-T0	67,9971319		

specimen	test W, mm	fracture	E*Jc	Raiz(E*Jc)	Limite	Jc - 30	Conv Pol	Mult	Mult + 30	Kjc-30 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
width W,	temperature	resistance										
mm	centigrade	Jo, N/mm										
25	-91	19,9	4.099,400	64,03	Válido					1340516,078	109,6932	12220,59415
25	-91	21,3	4.387,800	66,24	Válido					1724945,325	109,6932	15725,1801
25	-91	23,1	4.758,600	68,98	Válido					2309316,701	109,6932	21052,50554
25	-91	23,7	4.882,200	69,87	Válido					2527576,955	109,6932	23042,23922
25	-91	29,1	5.994,600	77,42	Válido					5058504,187	109,6932	46115,02069
25	-91	29,4	6.056,400	77,82	Válido					5230494,562	109,6932	47682,94263
25	-91	38,6	7.951,600	89,17	Válido					12259069,03	109,6932	111757,7847
25	-91	39,7	8.178,200	90,43	Válido					13338535,22	109,6932	121598,5606
25	-91	42,3	8.713,800	93,35	Válido					16103653,58	109,6932	146806,3069
25	-91	46,3	9.537,800	97,66	Válido					20959002,81	109,6932	191069,2988
25	-91	47,3	9.743,800	98,71	Válido					22289339,45	109,6932	203197,0938
25	-91	48,9	10.073,400	100,37	Válido					24516562,58	109,6932	223501,2068
25	-91	51,4	10.588,400	102,90	Válido					28242878,35	109,6932	257471,5511
25	-91	52	10.712,000	103,50	Válido					29182386,91	109,6932	266036,4262
25	-91	55,9	11.515,400	107,31	Válido					35722258,88	109,6932	325656,0924
25	-91	56,6	11.659,600	107,98	Válido					36976400,3	109,6932	337089,2662
25	-91	59,4	12.236,400	110,62	Válido					42240955,73	109,6932	385082,7192
25	-91	63,3	13.039,800	114,19	Válido					50243761,27	109,6932	458038,9784
25	-91	68,5	14.111,000	118,79	Válido					62151404,2	109,6932	566593,045
25	-91	70,2	14.461,200	120,25	Válido					66355951,09	109,6932	604923,1046
25	-91	70,6	14.543,600	120,60	Válido					67367801,21	109,6932	614147,4696
25	-91	71,4	14.708,400	121,28	Válido					69417365,6	109,6932	632831,9859
25	-91	76	15.656,000	125,12	Válido					81876504,79	109,6932	746413,6773
25	-91	76,5	15.759,000	125,53	Válido					83300461,63	109,6932	759394,9455
25	-91	76,6	15.779,600	125,62	Válido					83586903,07	109,6932	762006,2417
25	-91	76,8	15.820,800	125,78	Válido					84161437,52	109,6932	767243,8904
25	-91	77	15.862,000	125,94	Válido					84738175,31	109,6932	772501,6256
25	-91	77,2	15.903,200	126,11	Válido					85317117,93	109,6932	777779,4606
25	-91	93,9	19.343,400	139,08	Válido					141575893,5	109,6932	1290653,327
25	-91	112,8	23.236,800	152,44	Válido					224718898,7	109,6932	2048612,847
25	-91	124,3	25.605,800	160,02	Válido					285769306,8	109,6932	2605168,842
50	-91	14,9	3.069,400	55,40	Válido	25,40	1,189207	30,21	60,21	832746,8455	109,6932	7591,59953
50	-91	18,3	3.769,800	61,40	Válido	31,40	1,189207	37,34	67,34	1943911,559	109,6932	17721,34972
50	-91	18,8	3.872,800	62,23	Válido	32,23	1,189207	38,33	68,33	2158587,028	109,6932	19678,40329
50	-91	20,2	4.161,200	64,51	Válido	34,51	1,189207	41,04	71,04	2835810,014	109,6932	25852,19516
50	-91	22,4	4.614,400	67,93	Válido	37,93	1,189207	45,11	75,11	4139355,682	109,6932	37735,75465
50	-91	24,6	5.067,600	71,19	Válido	41,19	1,189207	48,98	78,98	5755378,665	109,6932	52467,96214
50	-91	27,7	5.706,200	75,54	Válido	45,54	1,189207	54,16	84,16	8601594,647	109,6932	78415,0216

specimen	test W, mm	fracture	E*Jc	Raiz(E*Jc)	Limite	Jc - 30	Conv Pol	Mult	Mult + 30	Kjc-30 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
width W,	temperature	resistance										
mm	centigrade	Jo, N/mm										
50	-91	30,2	6.221,200	78,87	Válido	48,87	1,189207	58,12	88,12	11412013,87	109,6932	104035,7458
50	-91	30,4	6.262,400	79,14	Válido	49,14	1,189207	58,43	88,43	11657499,43	109,6932	106273,6745
50	-91	30,6	6.303,600	79,40	Válido	49,40	1,189207	58,74	88,74	11906098,73	109,6932	108539,9891
50	-91	31,7	6.530,200	80,81	Válido	50,81	1,189207	60,42	90,42	13329532,19	109,6932	121516,4858
50	-91	34,3	7.065,800	84,06	Válido	54,06	1,189207	64,29	94,29	17079688,78	109,6932	155704,171
50	-91	41,5	8.549,000	92,46	Válido	62,46	1,189207	74,28	104,28	30441092,51	109,6932	277511,2086
50	-91	41,6	8.569,600	92,57	Válido	62,57	1,189207	74,41	104,41	30658709,01	109,6932	279495,0736
50	-91	45,3	9.331,800	96,60	Válido	66,60	1,189207	79,20	109,20	39351320,83	109,6932	358739,8382
50	-91	46,1	9.496,600	97,45	Válido	67,45	1,189207	80,21	110,21	41397174,09	109,6932	377390,5228
50	-91	46,5	9.579,000	97,87	Válido	67,87	1,189207	80,71	110,71	42442596,74	109,6932	386920,9463
50	-91	47,3	9.743,800	98,71	Válido	68,71	1,189207	81,71	111,71	44578678,89	109,6932	406394,1875
50	-91	48,7	10.032,200	100,16	Válido	70,16	1,189207	83,44	113,44	48462952,97	109,6932	441804,5328
50	-91	52,7	10.856,200	104,19	Válido	74,19	1,189207	88,23	118,23	60601563,81	109,6932	552464,1802
50	-91	54,6	11.247,600	106,05	Válido	76,05	1,189207	90,44	120,44	66916665,47	109,6932	610034,7649
50	-91	55,6	11.453,600	107,02	Válido	77,02	1,189207	91,59	121,59	70384613,6	109,6932	641649,7431
50	-91	57,4	11.824,400	108,74	Válido	78,74	1,189207	93,64	123,64	76879915,16	109,6932	700863,0905
50	-91	58,7	12.092,200	109,96	Válido	79,96	1,189207	95,09	125,09	81774851,31	109,6932	745486,9701
50	-91	59,1	12.174,600	110,34	Válido	80,34	1,189207	95,54	125,54	83315610,58	109,6932	759533,0484
50	-91	67	13.802,000	117,48	Válido	87,48	1,189207	104,03	134,03	117139425,8	109,6932	1067882,292
50	-91	75,7	15.594,200	124,88	Válido	94,88	1,189207	112,83	142,83	162057448,4	109,6932	1477370,05
50	-91	76,2	15.697,200	125,29	Válido	95,29	1,189207	113,32	143,32	164888876,4	109,6932	1503182,298
50	-91	78,6	16.191,600	127,25	Válido	97,25	1,189207	115,65	145,65	178863150,7	109,6932	1630576,469
50	-91	81	16.686,000	129,17	Válido	99,17	1,189207	117,94	147,94	193475770,9	109,6932	1763790,015
50	-91	86	17.716,000	133,10	Válido	103,10	1,189207	122,61	152,61	225990062,4	109,6932	2060201,201
50	-91	86,5	17.819,000	133,49	Válido	103,49	1,189207	123,07	153,07	229396649,2	109,6932	2091256,789
50	-91	100,5	20.703,000	143,89	Válido	113,89	1,189207	135,43	165,43	336435457	109,6932	3067058,46
50	-91	117,8	24.266,800	155,78	Válido	125,78	1,189207	149,58	179,58	500552214,3	109,6932	4563201,86
100	-91	19,6	4.037,600	63,54	Válido	33,54	1,414214	47,44	77,44	5063159,531	109,6932	46157,46036
100	-91	19,7	4.058,200	63,70	Válido	33,70	1,414214	47,66	77,66	5161618,843	109,6932	47055,04847
100	-91	21,6	4.449,600	66,71	Válido	36,71	1,414214	51,91	81,91	7260660,841	109,6932	66190,6193
100	-91	23,3	4.799,800	69,28	Válido	39,28	1,414214	55,55	85,55	9522959,833	109,6932	86814,49564
100	-91	25,4	5.232,400	72,34	Válido	42,34	1,414214	59,87	89,87	12849073,06	109,6932	117136,4593
100	-91	25,9	5.335,400	73,04	Válido	43,04	1,414214	60,87	90,87	13731036,36	109,6932	125176,7325
100	-91	27,7	5.706,200	75,54	Válido	45,54	1,414214	64,40	94,40	17203189,29	109,6932	156830,0432
100	-91	29,5	6.077,000	77,96	Válido	47,96	1,414214	67,82	97,82	21154353,1	109,6932	192850,1775
100	-91	32	6.592,000	81,19	Válido	51,19	1,414214	72,40	102,40	27468752,87	109,6932	250414,3636
100	-91	32,1	6.612,600	81,32	Válido	51,32	1,414214	72,57	102,57	27741843,46	109,6932	252903,949
100	-91	32,9	6.777,400	82,32	Válido	52,32	1,414214	74,00	104,00	29984430,54	109,6932	273348,1249

specimen	test W, mm width W, mm	temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 30	Conv Pol	Mult	Mult + 30	Kjc-30 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
100	-91	33	6.798,000	82,45	Válido	52,45	1,414214	74,18	104,18	30272024,02	109,6932	275969,9236	
100	-91	33,4	6.880,400	82,95	Válido	52,95	1,414214	74,88	104,88	31438659,92	109,6932	286605,3677	
100	-91	35,8	7.374,800	85,88	Válido	55,88	1,414214	79,02	109,02	38992547,74	109,6932	355469,1425	
100	-91	35,9	7.395,400	86,00	Válido	56,00	1,414214	79,19	109,19	39328182,89	109,6932	358528,9051	
100	-91	37,6	7.745,600	88,01	Válido	58,01	1,414214	82,04	112,04	45294369,13	109,6932	412918,6598	
100	-91	39,6	8.157,600	90,32	Válido	60,32	1,414214	85,30	115,30	52952808,25	109,6932	482735,5593	
100	-91	40,1	8.260,600	90,89	Válido	60,89	1,414214	86,11	116,11	54977165,76	109,6932	501190,2813	
100	-91	40,6	8.363,600	91,45	Válido	61,45	1,414214	86,91	116,91	57045899,57	109,6932	520049,5525	
100	-91	41,1	8.466,600	92,01	Válido	62,01	1,414214	87,70	117,70	59159241,14	109,6932	539315,483	
100	-91	41,3	8.507,800	92,24	Válido	62,24	1,414214	88,02	118,02	60017119,03	109,6932	547136,1856	
100	-91	41,3	8.507,800	92,24	Válido	62,24	1,414214	88,02	118,02	60017119,03	109,6932	547136,1856	
100	-91	42,3	8.713,800	93,35	Válido	63,35	1,414214	89,59	119,59	64414614,33	109,6932	587225,2275	
100	-91	42,7	8.796,200	93,79	Válido	63,79	1,414214	90,21	120,21	66224324,75	109,6932	603723,1547	
100	-91	45,6	9.393,600	96,92	Válido	66,92	1,414214	94,64	124,64	80223006,46	109,6932	731339,832	
100	-91	46,6	9.599,600	97,98	Válido	67,98	1,414214	96,13	126,13	85412608,15	109,6932	778649,9815	
100	-91	47,6	9.805,600	99,02	Válido	69,02	1,414214	97,61	127,61	90790643,78	109,6932	827677,958	
100	-91	49,2	10.135,200	100,67	Válido	70,67	1,414214	99,95	129,95	99791156,11	109,6932	909729,6469	
100	-91	53,7	11.062,200	105,18	Válido	75,18	1,414214	106,32	136,32	127761443,1	109,6932	1164716,164	
100	-91	126,4	26.038,400	161,36	Válido	131,36	1,414214	185,78	215,78	1191153925	109,6932	10858958,67	
200	-91	13,8	2.842,800	53,32	Válido	23,32	1,681793	39,22	69,22	2365096,168	109,6932	21561,00987	
200	-91	20,4	4.202,400	64,83	Válido	34,83	1,681793	58,57	88,57	11767939,21	109,6932	107280,4805	
200	-91	23	4.738,000	68,83	Válido	38,83	1,681793	65,31	95,31	18192804,11	109,6932	165851,7037	
200	-91	23,2	4.779,200	69,13	Válido	39,13	1,681793	65,81	95,81	18758902,87	109,6932	171012,45	
200	-91	25,4	5.232,400	72,34	Válido	42,34	1,681793	71,20	101,20	25698146,12	109,6932	234272,9187	
200	-91	25,6	5.273,600	72,62	Válido	42,62	1,681793	71,68	101,68	26395244,87	109,6932	240627,9047	
200	-91	25,8	5.314,800	72,90	Válido	42,90	1,681793	72,15	102,15	27103630,42	109,6932	247085,7849	
200	-91	30,2	6.221,200	78,87	Válido	48,87	1,681793	82,20	112,20	45648055,49	109,6932	416142,9833	
200	-91	33,9	6.983,400	83,57	Válido	53,57	1,681793	90,09	120,09	65867449,44	109,6932	600469,7596	
200	-91	36,9	7.601,400	87,19	Válido	57,19	1,681793	96,18	126,18	85555731,98	109,6932	779954,7464	
200	-91	38,8	7.992,800	89,40	Válido	59,40	1,681793	99,90	129,90	99611099,32	109,6932	908088,1888	
200	-91	40,9	8.425,400	91,79	Válido	61,79	1,681793	103,92	133,92	116617073,9	109,6932	1063120,356	
200	-91	44,6	9.187,600	95,85	Válido	65,85	1,681793	110,75	140,75	150440598,5	109,6932	1371466,951	
200	-91	44,8	9.228,800	96,07	Válido	66,07	1,681793	111,11	141,11	152411929,2	109,6932	1389438,263	
200	-91	50,7	10.444,200	102,20	Válido	72,20	1,681793	121,42	151,42	217351898,4	109,6932	1981452,801	
Total de Válidos						110						Soma dos K0	75341533,78
Censurados						0						Somatoria^{1/4}	93,1662498
												anterior +30	123,1662498
												Kjc Médio	115,0048863

specimen	test W, mm width W, mm	temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 30	Conv Pol	Mult	Mult + 30	Kjc-30 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
													85,00488632
													1,214355519
												Ln	0,194213499
												T - T0	10,22145645
25	-60	34	7.004,000	83,68990381	Válido						8309416,033	120,6932	68847,42498
25	-60	40,2	8.281,200	91,00109889	Válido						13846838,74	120,6932	114727,5798
25	-60	46,9	9.661,400	98,29242087	Válido						21751541,11	120,6932	180221,7615
25	-60	52	10.712,000	103,4987923	Válido						29182386,91	120,6932	241789,8184
25	-60	54,2	11.165,200	105,66551	Válido						32778709,71	120,6932	271587,0464
25	-60	56,1	11.556,600	107,5016279	Válido						36078070,2	120,6932	298923,8018
25	-60	62,3	12.833,800	113,2863628	Válido						48116672,48	120,6932	398669,2911
25	-60	67,4	13.884,400	117,8320839	Válido						59513123,99	120,6932	493094,2587
25	-60	68	14.008,000	118,355397	Válido						60944192,98	120,6932	504951,3392
25	-60	69	14.214,000	119,2224811	Válido						63371966,48	120,6932	525066,586
25	-60	74,6	15.367,600	123,9661244	Válido						77962410,72	120,6932	645955,2876
25	-60	78,2	16.109,200	126,9220233	Válido						88244955,18	120,6932	731151,0109
25	-60	81,3	16.747,800	129,4132914	Válido						97673738,69	120,6932	809272,9225
25	-60	81,4	16.768,400	129,4928569	Válido						97986807,32	120,6932	811866,8435
25	-60	82,3	16.953,800	130,2067587	Válido						100829603,1	120,6932	835420,7454
25	-60	90	18.540,000	136,1616686	Válido						127019659,5	120,6932	1052417,696
25	-60	90,4	18.622,400	136,4639146	Válido						128472366,5	120,6932	1064454,058
25	-60	100,3	20.661,800	143,7421302	Válido						167373011,6	120,6932	1386764,222
25	-60	112,2	23.113,200	152,0302601	Válido						221753329,1	120,6932	1837330,762
25	-60	120,3	24.781,800	157,4223618	Válido						263622577,8	120,6932	2184237,205
25	-60	123,4	25.420,400	159,4377622	Válido						280701015,2	120,6932	2325740,101
25	-60	127,4	26.244,400	162,0012346	Válido						303607134	120,6932	2515528,083
25	-60	129	26.574,000	163,0153367	Válido						313045072,7	120,6932	2593725,85
25	-60	140,9	29.025,400	170,3684243	Válido						388219815,8	120,6932	3216583,998
25	-60	141,9	29.231,400	170,9719275	Válido						394939481,5	120,6932	3272259,593
25	-60	142,5	29.355,000	171,3330091	Válido						399001402,2	120,6932	3305914,519
25	-60	143,1	29.478,600	171,6933313	Válido						403085934	120,6932	3339756,788
25	-60	191,8	39.510,800	198,7732376	Válido						811361370,5	120,6932	6722511,048
25	-60	193,2	39.799,200	199,4973684	Válido						825376005,1	120,6932	6838628,896
25	-60	261	53.766,000	231,8749663	Válido						1660847927	120,6932	13760907,22
25	-60	284,9	58.689,400	242,2589524	Válido						2029850558	120,6932	16818267,79
50	-60	46,7	9.620,200	98,08261824	Válido	68,082618	1,189207	80,96433401	110,964334	42970953,59	120,6932	356034,5868	
50	-60	48	9.888,000	99,43842316	Válido	69,438423	1,189207	82,57666687	112,5766669	46497477,84	120,6932	385253,5009	

specimen	test W, mm	fracture	E*Jc	Raiz(E*Jc)	Limite	Jc - 30	Conv Pol	Mult	Mult + 30	Kjc-30 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
width W,	temperature	resistance										
mm	centigrade	Jo, N/mm										
50	-60	49,9	10.279,400	101,3873759	Válido	71,387376	1,189207	84,89437539	114,8943754	51941641,38	120,6932	430360,9597
50	-60	52,9	10.897,400	104,3906126	Válido	74,390613	1,189207	88,4658458	118,4658458	61249498,37	120,6932	507480,9382
50	-60	59,4	12.236,400	110,6182625	Válido	80,618263	1,189207	95,87181137	125,8718114	84481911,46	120,6932	699972,4215
50	-60	63,1	12.998,600	114,0114029	Válido	84,011403	1,189207	99,90695812	129,9069581	99628351,55	120,6932	825467,8105
50	-60	68,1	14.028,600	118,4423911	Válido	88,442391	1,189207	105,1763207	135,1763207	122369136,9	120,6932	1013885,927
50	-60	68,2	14.049,200	118,5293213	Válido	88,529321	1,189207	105,2796987	135,2796987	122850954,2	120,6932	1017878,01
50	-60	69,2	14.255,200	119,3951423	Válido	89,395142	1,189207	106,3093392	136,3093392	127727871,6	120,6932	1058285,567
50	-60	75,1	15.470,600	124,3808667	Válido	94,380867	1,189207	112,2383982	142,2383982	158695948,8	120,6932	1314870,67
50	-60	76,2	15.697,200	125,2884671	Válido	95,288467	1,189207	113,3177231	143,3177231	164888876,4	120,6932	1366181,992
50	-60	76,5	15.759,000	125,5348557	Válido	95,534856	1,189207	113,6107301	143,6107301	166600923,3	120,6932	1380367,107
50	-60	80,6	16.603,600	128,8549572	Válido	98,854957	1,189207	117,5590185	147,5590185	190995794,9	120,6932	1582490,106
50	-60	81,9	16.871,400	129,8899534	Válido	99,889953	1,189207	118,7898433	148,7898433	199121079,5	120,6932	1649811,916
50	-60	82,9	17.077,400	130,6805265	Válido	100,68053	1,189207	119,7299984	149,7299984	205500038,3	120,6932	1702664,594
50	-60	86,1	17.736,600	133,1788271	Válido	103,17883	1,189207	122,7009954	152,7009954	226669111,9	120,6932	1878060,337
50	-60	86,2	17.757,200	133,2561443	Válido	103,25614	1,189207	122,7929415	152,7929415	227349295,1	120,6932	1883695,975
50	-60	94,4	19.446,400	139,4503496	Válido	109,45035	1,189207	130,1591345	160,1591345	287011043,6	120,6932	2378021,659
50	-60	95,1	19.590,600	139,9664245	Válido	109,96642	1,189207	130,7728545	160,7728545	292462652,2	120,6932	2423190,803
50	-60	96,8	19.940,800	141,2118975	Válido	111,2119	1,189207	132,2539798	162,2539798	305939110	120,6932	2534849,602
50	-60	97	19.982,000	141,3577023	Válido	111,3577	1,189207	132,4273719	162,4273719	307546678,5	120,6932	2548169,064
50	-60	98,6	20.311,600	142,5187707	Válido	112,51877	1,189207	133,8081227	163,8081227	320575191,6	120,6932	2656116,431
50	-60	109,7	22.598,200	150,326977	Válido	120,32698	1,189207	143,0936971	173,0936971	419258637,7	120,6932	3473755,255
50	-60	112,9	23.257,400	152,5037704	Válido	122,50377	1,189207	145,6823554	175,6823554	450430529,3	120,6932	3732029,057
50	-60	127,4	26.244,400	162,0012346	Válido	132,00123	1,189207	156,9768073	186,9768073	607214268	120,6932	5031056,165
50	-60	129,1	26.594,600	163,0785087	Válido	133,07851	1,189207	158,2579094	188,2579094	627280370,6	120,6932	5197313,276
50	-60	129,9	26.759,400	163,5830065	Válido	133,58301	1,189207	158,8578617	188,8578617	636846622,6	120,6932	5276574,178
50	-60	142,3	29.313,800	171,2127332	Válido	141,21273	1,189207	167,931187	197,931187	795289834,3	120,6932	6589350,803
50	-60	147,4	30.364,400	174,2538378	Válido	144,25384	1,189207	171,5476903	201,5476903	866043089,7	120,6932	7175574,843
50	-60	147,8	30.446,800	174,4901143	Válido	144,49011	1,189207	171,828672	201,828672	871731088,6	120,6932	7222702,593
50	-60	163,2	33.619,200	183,3553926	Válido	153,35539	1,189207	182,371324	212,371324	1106181025	120,6932	9165230,724
50	-60	164,7	33.928,200	184,1960912	Válido	154,19609	1,189207	183,3710887	213,3710887	1130637678	120,6932	9367865,612
50	-60	176,8	36.420,800	190,8423433	Válido	160,84234	1,189207	191,2748591	221,2748591	1338540643	120,6932	11090439,59
50	-60	198	40.788,000	201,9603922	Válido	171,96039	1,189207	204,4965219	234,4965219	1748814329	120,6932	14489750,29
100	-60	30,4	6.262,400	79,13532713	Válido	49,135327	1,414214	69,48784602	99,48784602	23314998,86	120,6932	193175,7453
100	-60	57,5	11.845,000	108,8347371	Válido	78,834737	1,414214	111,4891544	141,4891544	154500712,3	120,6932	1280111,16
100	-60	63,3	13.039,800	114,1919437	Válido	84,191944	1,414214	119,0653886	149,0653886	200975045,1	120,6932	1665172,894
100	-60	64	13.184,000	114,8216008	Válido	84,821601	1,414214	119,9558582	149,9558582	207055060	120,6932	1715548,68
100	-60	68,5	14.111,000	118,7897302	Válido	88,78973	1,414214	125,5676406	155,5676406	248605616,8	120,6932	2059814,611
100	-60	82,8	17.056,800	130,6016845	Válido	100,60168	1,414214	142,2722666	172,2722666	409714187,2	120,6932	3394674,988

specimen	test W, mm width W, mm	temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 30	Conv Pol	Mult	Mult + 30	Kjc-30 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
100	-60	86,1	17.736,600	133,1788271	Válido	103,17883	1,414214	145,9168967	175,9168967	453338223,8	120,6932	3756120,675	
100	-60	88,3	18.189,800	134,8695666	Válido	104,86957	1,414214	148,3079634	178,3079634	483791110,8	120,6932	4008437,184	
100	-60	89,4	18.416,400	135,7070374	Válido	105,70704	1,414214	149,4923259	179,4923259	499431115,6	120,6932	4138021,989	
100	-60	94,5	19.467,000	139,5241915	Válido	109,52419	1,414214	154,890597	184,890597	575572736,5	120,6932	4768891,176	
100	-60	102,2	21.053,200	145,0972088	Válido	115,09721	1,414214	162,7720337	192,7720337	701970979,8	120,6932	5816160,146	
100	-60	106,3	21.897,800	147,9790526	Válido	117,97905	1,414214	166,8475762	196,8475762	774960573,9	120,6932	6420913,307	
100	-60	107,7	22.186,200	148,9503273	Válido	118,95033	1,414214	168,2211661	198,2211661	800797219,7	120,6932	6634982,085	
100	-60	112,3	23.133,800	152,0979947	Válido	122,09799	1,414214	172,6726401	202,6726401	888984352,6	120,6932	7365654,011	
100	-60	113	23.278,000	152,5712948	Válido	122,57129	1,414214	173,3419875	203,3419875	902848928,4	120,6932	7480528,55	
100	-60	115,5	23.793,000	154,2497974	Válido	124,2498	1,414214	175,7157486	205,7157486	953328877,3	120,6932	7898778,699	
100	-60	128,1	26.388,600	162,4456832	Válido	132,44568	1,414214	187,3064815	217,3064815	1230867270	120,6932	10198314,98	
100	-60	131,1	27.006,600	164,3368492	Válido	134,33685	1,414214	189,980994	219,980994	1302688631	120,6932	10793388,78	
100	-60	132,7	27.336,200	165,3366263	Válido	135,33663	1,414214	191,3948924	221,3948924	1341903779	120,6932	11118304,75	
100	-60	150,2	30.941,200	175,9011086	Válido	145,90111	1,414214	206,3353265	236,3353265	1812568208	120,6932	15017981,2	
100	-60	153,5	31.621,000	177,8229457	Válido	147,82295	1,414214	209,0532146	239,0532146	1909973757	120,6932	15825032,04	
100	-60	160,8	33.124,800	182,0021978	Válido	152,0022	1,414214	214,9635696	244,9635696	2135302758	120,6932	17691988,93	
100	-60	168,9	34.793,400	186,5298904	Válido	156,52989	1,414214	221,3666939	251,3666939	2401314900	120,6932	19896024,79	
100	-60	191,9	39.531,400	198,8250487	Válido	168,82505	1,414214	238,7546736	268,7546736	3249432548	120,6932	26923078,91	
100	-60	225,7	46.494,200	215,6251377	Válido	185,62514	1,414214	262,5135872	292,5135872	4749054422	120,6932	39348152,36	
100	-60	230	47.380,000	217,6694742	Válido	187,66947	1,414214	265,4047157	295,4047157	4961746137	120,6932	41110403,38	
100	-60	241,9	49.831,400	223,2294783	Válido	193,22948	1,414214	273,2677489	303,2677489	5576394844	120,6932	46203057,37	
100	-60	265,4	54.672,400	233,8212993	Válido	203,8213	1,414214	288,2468458	318,2468458	6903323956	120,6932	57197289,96	
100	-60	282,6	58.215,600	241,2790915	Válido	211,27909	1,414214	298,7937567	328,7937567	7970509328	120,6932	66039423,33	
100	-60	415,3	85.551,800	292,4923931	Válido	262,49239	1,414214	371,2203023	401,2203023	18990083757	120,6932	157341786,9	
25	-60	38,4	7.910,400	88,9404295	Válido					12068496,95	120,6932	99993,18064	
25	-60	46,1	9.496,600	97,45050026	Válido					20698587,05	120,6932	171497,5412	
25	-60	55	11.330,000	106,4424727	Válido					34145927,03	120,6932	282915,0858	
25	-60	63,6	13.101,600	114,4622208	Válido					50892054,8	120,6932	421664,6406	
25	-60	64,1	13.204,600	114,9112701	Válido					51983001,1	120,6932	430703,6444	
25	-60	77,7	16.006,200	126,5156117	Válido					86774130,33	120,6932	718964,5343	
25	-60	78,7	16.212,200	127,3271377	Válido					89729615,31	120,6932	743452,1192	
25	-60	87,8	18.086,800	134,4871741	Válido					119193325	120,6932	987572,8289	
25	-60	89,1	18.354,600	135,4791497	Válido					123784560,9	120,6932	1025613,381	
25	-60	116,3	23.957,800	154,783074	Válido					242450297,2	120,6932	2008814,889	
25	-60	128,7	26.512,200	162,8256737	Válido					311263437,1	120,6932	2578964,159	
25	-60	129	26.574,000	163,0153367	Válido					313045072,7	120,6932	2593725,85	
25	-60	131,7	27.130,200	164,7124768	Válido					329329992,1	120,6932	2728654,076	
25	-60	133,7	27.542,200	165,9584285	Válido					341683922,9	120,6932	2831012,211	

specimen	test W, mm width W, mm	temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 30	Conv Pol	Mult	Mult + 30	Kjc-30 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068	
25	25	-60	133,7	27.542,200	165,9584285	Válido					341683922,9	120,6932	2831012,211	
25	25	-60	140,7	28.984,200	170,2474669	Válido					386883407,5	120,6932	3205511,226	
25	25	-60	150,4	30.982,400	176,0181809	Válido					454598223,8	120,6932	3766560,368	
25	25	-60	164,6	33.907,600	184,140164	Válido					564499117	120,6932	4677141,024	
25	25	-60	166,1	34.216,600	184,9772959	Válido					576862510,4	120,6932	4779577,561	
25	25	-60	176	36.256,000	190,4100838	Válido					662104687,3	120,6932	5485849,139	
25	25	-60	197,6	40.705,600	201,7562886	Válido					870263138,3	120,6932	7210539,934	
25	25	-60	200,2	41.241,200	203,0792949	Válido					897388435,8	120,6932	7435285,797	
25	25	-60	217,1	44.722,600	211,4771855	Válido					1084646305	120,6932	8986805,432	
25	25	-60	219,5	45.217,000	212,6428931	Válido					1112784613	120,6932	9219944,559	
25	25	-60	234,5	48.307,000	219,7885347	Válido					1297417918	120,6932	10749718,44	
25	25	-60	275,9	56.835,400	238,4017617	Válido					1886277324	120,6932	15628695,93	
25	25	-60	369,1	76.034,600	275,7437216	Censurado					0	120,6932	2,184139821	
25	25	-60	373,6	76.961,600	277,4195379	Censurado					0	120,6932	2,184139821	
25	25	-60	427,1	87.982,600	296,6186103	Censurado					0	120,6932	2,184139821	
25	25	-60	678,2	139.709,200	373,7769388	Censurado					0	120,6932	2,184139821	
25	25	-60	687,7	141.666,200	376,3857064	Censurado					0	120,6932	2,184139821	
						T. Válidos	121						Soma dos K0	903472740,2
						T. Censurados	5						Somatoria ^{1/4}	173,3719218
											anterior +20	203,3719218		
											Kjc Médio	188,1845415		
												158,1845415		
												2,259779164		
											LN	0,815267093		
											T - T0	42,90750713		
25	25	-40	61,6	12.689,600	112,6481247	Válido					46658633,5	76,6932	608380,3192	
25	25	-40	113,2	23.319,200	152,706254	Válido					226707971,9	76,6932	2956037,457	
25	25	-40	136,6	28.139,600	167,7486215	Válido					360038584	76,6932	4694530,728	
25	25	-40	139,3	28.695,800	169,3983471	Válido					377598705,5	76,6932	4923496,549	
25	25	-40	155,4	32.012,400	178,9200939	Válido					491827950	76,6932	6412927,743	
25	25	-40	165,5	34.093,000	184,6428986	Válido					571899775	76,6932	7456981,518	
25	25	-40	195,2	40.211,200	200,5273049	Válido					845620909,1	76,6932	11026021,98	
25	25	-40	203,4	41.900,400	204,695872	Válido					931387856,3	76,6932	12144334,26	
25	25	-40	233,2	48.039,200	219,1784661	Válido					1280816162	76,6932	16700517,93	
25	25	-40	251	51.706,000	227,3895336	Válido					1518086379	76,6932	19794276,15	
25	25	-40	254,5	52.427,000	228,9694303	Válido					1567275792	76,6932	20435655,21	
25	25	-40	264,8	54.548,800	233,5568453	Válido					1716891485	76,6932	22386489,09	
25	25	-40	275,9	56.835,400	238,4017617	Válido					1886277324	76,6932	24595105,23	

specimen	test W, mm	fracture	E*Jc	Raiz(E*Jc)	Limite	Jc - 30	Conv Pol	Mult	Mult + 30	Kjc-30 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
width W,	temperature	resistance										
mm	centigrade	Jo, N/mm										
25	-40	283	58.298,000	241,4497877	Válido					1999074660	76,6932	26065865,81
25	-40	311,7	64.210,200	253,3973165	Válido					2490644869	76,6932	32475432,89
25	-40	349,2	71.935,200	268,2073824	Censurado					0	76,6932	3,430412845
25	-40	483,2	99.539,200	315,498336	Censurado					0	76,6932	3,430412845
25	-40	548,6	113.011,600	336,1719798	Censurado					0	76,6932	3,430412845
25	-40	562,8	115.936,800	340,4949339	Censurado					0	76,6932	3,430412845
25	-40	619,9	127.699,400	357,3505282	Censurado					0	76,6932	3,430412845
25	-40	758,7	156.292,200	395,3380832	Censurado					0	76,6932	3,430412845
25	-40	773,9	159.423,400	399,2785995	Censurado					0	76,6932	3,430412845
25	-40	1127,9	232.347,400	482,0242732	Censurado					0	76,6932	3,430412845
25	-40	1174	241.844,000	491,7763719	Censurado					0	76,6932	3,430412845
25	-40	1337,1	275.442,600	524,826257	Censurado					0	76,6932	3,430412845
25	-40	1337,2	275.463,200	524,8458821	Censurado					0	76,6932	3,430412845
25	-40	1433,6	295.321,600	543,4350007	Censurado					0	76,6932	3,430412845
25	-40	1544,1	318.084,600	563,9898935	Censurado					0	76,6932	3,430412845
25	-40	1573,3	324.099,800	569,2976374	Censurado					0	76,6932	3,430412845
25	-40	1714,3	353.145,800	594,2607172	Censurado					0	76,6932	3,430412845
50	-40	49,1	10.114,600	100,5713677	Válido	70,571368	1,189207	83,92397258	113,9239726	49607133,53	76,6932	646825,7099
50	-40	50,6	10.423,600	102,0960332	Válido	72,096033	1,189207	85,73711567	115,7371157	54035039,89	76,6932	704561,0287
50	-40	60,6	12.483,600	111,7300318	Válido	81,730032	1,189207	97,19393529	127,1939353	89239405,14	76,6932	1163589,538
50	-40	93,8	19.322,800	139,0064747	Válido	109,00647	1,189207	129,6312753	159,6312753	282383407,1	76,6932	3681987,543
50	-40	107,4	22.124,400	148,7427309	Válido	118,74273	1,189207	141,2097005	171,2097005	397610758,6	76,6932	5184433,022
50	-40	107,5	22.145,000	148,8119619	Válido	118,81196	1,189207	141,2920304	171,2920304	398538851,2	76,6932	5196534,389
50	-40	119	24.514,000	156,5694734	Válido	126,56947	1,189207	150,5173183	180,5173183	513270008,7	76,6932	6692510,011
50	-40	122,7	25.276,200	158,9849049	Válido	128,9849	1,189207	153,3897667	183,3897667	553586572,4	76,6932	7218196,299
50	-40	137,8	28.386,800	168,4838271	Válido	138,48383	1,189207	164,6859525	194,6859525	735573753	76,6932	9591120,894
50	-40	139,9	28.819,400	169,7627757	Válido	139,76278	1,189207	166,2068872	196,2068872	763125672,3	76,6932	9950369,424
50	-40	166,5	34.299,000	185,199892	Válido	155,19989	1,189207	184,5648158	214,5648158	1160367762	76,6932	15129995,39
50	-40	167	34.402,000	185,4777615	Válido	155,47776	1,189207	184,8952602	214,8952602	1168700183	76,6932	15238641,54
50	-40	167	34.402,000	185,4777615	Válido	155,47776	1,189207	184,8952602	214,8952602	1168700183	76,6932	15238641,54
50	-40	168,9	34.793,400	186,5298904	Válido	156,52989	1,189207	186,1464593	216,1464593	1200657450	76,6932	15655331,24
50	-40	187	38.522,000	196,2702219	Válido	166,27022	1,189207	197,7297309	227,7297309	1528579043	76,6932	19931089,63
50	-40	205,3	42.291,800	205,6497022	Válido	175,6497	1,189207	208,8838756	238,8838756	1903792741	76,6932	24823488,15
50	-40	210	43.260,000	207,9903844	Válido	177,99038	1,189207	211,6674315	241,6674315	2007317910	76,6932	26173349,27
50	-40	212,8	43.836,800	209,3723955	Válido	179,3724	1,189207	213,310929	243,310929	2070391272	76,6932	26995760,67
50	-40	217,1	44.722,600	211,4771855	Válido	181,47719	1,189207	215,8139602	245,8139602	2169292611	76,6932	28285331,83
50	-40	219,3	45.175,800	212,545995	Válido	182,546	1,189207	217,0849961	247,0849961	2220850029	76,6932	28957587,24
50	-40	245	50.470,000	224,6552915	Válido	194,65529	1,189207	231,4854576	261,4854576	2871407642	76,6932	37440185,6

specimen	test W, mm	fracture	E*Jc	Raiz(E*Jc)	Limite	Jc - 30	Conv Pol	Mult	Mult + 30	Kjc-30 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
width W,	temperature	resistance										
mm	centigrade	Jo, N/mm										
50	-40	251,8	51.870,800	227,7516191	Válido	197,75162	1,189207	235,1676324	265,1676324	3058511991	76,6932	39879832,78
50	-40	271,9	56.011,400	236,667277	Válido	206,66728	1,189207	245,7701962	275,7701962	3648521124	76,6932	47572941,59
50	-40	272,7	56.176,200	237,0151894	Válido	207,01519	1,189207	246,1839361	276,1839361	3673151528	76,6932	47894096,59
50	-40	274,2	56.485,200	237,6661524	Válido	207,66615	1,189207	246,958066	276,958066	3719571073	76,6932	48499359,43
50	-40	308,7	63.592,200	252,1749393	Válido	222,17494	1,189207	264,2120186	294,2120186	4873155573	76,6932	63540908,1
50	-40	308,8	63.612,800	252,2157806	Válido	222,21578	1,189207	264,2605874	294,2605874	4876739797	76,6932	63587642,67
50	-40	313,1	64.498,600	253,9657457	Válido	223,96575	1,189207	266,3416583	296,3416583	5032182672	76,6932	65614456,97
50	-40	313,1	64.498,600	253,9657457	Válido	223,96575	1,189207	266,3416583	296,3416583	5032182672	76,6932	65614456,97
50	-40	349,4	71.976,400	268,2841777	Válido	238,28418	1,189207	283,3692395	313,3692395	6447789023	76,6932	84072499,55
50	-40	386,6	79.639,600	282,2048901	Válido	252,20489	1,189207	299,9238498	329,9238498	8091778904	76,6932	105508427,1
50	-40	455,2	93.771,200	306,2208353	Válido	276,22084	1,189207	328,4837827	358,4837827	11642754312	76,6932	151809473,5
100	-40	40	8.240,000	90,77444574	Válido	60,774446	1,414214	85,94804542	115,9480454	54568751,64	76,6932	711520,0779
100	-40	63,5	13.081,000	114,3721994	Válido	84,372199	1,414214	119,3203087	149,3203087	202701738,4	76,6932	2643021,003
100	-40	75,5	15.553,000	124,7116675	Válido	94,711667	1,414214	133,9425246	163,9425246	321865125	76,6932	4196788,307
100	-40	79,1	16.294,600	127,6503036	Válido	97,650304	1,414214	138,0983837	168,0983837	363709280	76,6932	4742392,807
100	-40	81	16.686,000	129,1743008	Válido	99,174301	1,414214	140,2536413	170,2536413	386951541,7	76,6932	5045447,859
100	-40	86,1	17.736,600	133,1788271	Válido	103,17883	1,414214	145,9168967	175,9168967	453338223,8	76,6932	5911061,526
100	-40	91,5	18.849,000	137,2916603	Válido	107,29166	1,414214	151,7333212	181,7333212	530058563,9	76,6932	6911415,405
100	-40	92,1	18.972,600	137,7410614	Válido	107,74106	1,414214	152,3688703	182,3688703	538995314,8	76,6932	7027941,393
100	-40	94,8	19.528,800	139,7454829	Válido	109,74548	1,414214	155,2035504	185,2035504	580238587,3	76,6932	7565711,006
100	-40	95,6	19.693,600	140,3338876	Válido	110,33389	1,414214	156,0356802	186,0356802	592782909,3	76,6932	7729275,989
100	-40	96	19.776,000	140,6271666	Válido	110,62717	1,414214	156,4504394	186,4504394	599110801,1	76,6932	7811785,153
100	-40	96,4	19.858,400	140,9198354	Válido	110,91984	1,414214	156,8643355	186,8643355	605475893,2	76,6932	7894779,37
100	-40	99,6	20.517,600	143,2396593	Válido	113,23966	1,414214	160,145062	190,145062	657739929,9	76,6932	8576248,35
100	-40	102,6	21.135,600	145,3808791	Válido	115,38088	1,414214	163,173204	193,173204	708916958	76,6932	9243543,86
100	-40	108,2	22.289,200	149,2956798	Válido	119,29568	1,414214	168,7095683	198,7095683	810137725,4	76,6932	10563357,97
100	-40	110,9	22.845,400	151,1469484	Válido	121,14695	1,414214	171,3276574	201,3276574	861608365,7	76,6932	11234481,88
100	-40	112,4	23.154,400	152,1656992	Válido	122,1657	1,414214	172,7683886	202,7683886	890957792,4	76,6932	11617168,05
100	-40	124	25.544,000	159,8249042	Válido	129,8249	1,414214	183,6001402	213,6001402	1136297456	76,6932	14816143,49
100	-40	141,2	29.087,200	170,5496995	Válido	140,5497	1,414214	198,7672912	228,7672912	1560916520	76,6932	20352736,88
100	-40	142,5	29.355,000	171,3330091	Válido	141,33301	1,414214	199,8750583	229,8750583	1596005609	76,6932	20810262,3
100	-40	153,4	31.600,400	177,7650134	Válido	147,76501	1,414214	208,971286	238,971286	1906981420	76,6932	24865065,22
100	-40	160,5	33.063,000	181,8323404	Válido	151,83234	1,414214	214,7233549	244,7233549	2125774224	76,6932	27717897,07
100	-40	166,8	34.360,800	185,3666637	Válido	155,36666	1,414214	219,7216429	249,7216429	2330726696	76,6932	30390265,32
100	-40	167,8	34.566,800	185,9214888	Válido	155,92149	1,414214	220,5062841	250,5062841	2364198205	76,6932	30826699,17
100	-40	175,4	36.132,400	190,085244	Válido	160,08524	1,414214	226,3947233	256,3947233	2627031019	76,6932	34253767,21
100	-40	186,7	38.460,200	196,1127227	Válido	166,11272	1,414214	234,9188653	264,9188653	3045590982	76,6932	39711356,18
100	-40	187,7	38.666,200	196,6372294	Válido	166,63723	1,414214	235,6606299	265,6606299	3084239795	76,6932	40215296,73

specimen	test W, mm	fracture	E*Jc	Raiz(E*Jc)	Limite	Jc - 30	Conv Pol	Mult	Mult + 30	Kjc-30 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068	
width W, mm	temperature centigrade	resistance Jo, N/mm											
100	-40	214,1	44.104,600	210,0109521	Válido	180,01095	1,414214	254,5739298	284,5739298	4200062055	76,6932	54764464,84	
100	-40	272,3	56.093,800	236,8412971	Válido	206,8413	1,414214	292,5177676	322,5177676	7321650625	76,6932	95466750,97	
100	-40	282,2	58.133,200	241,1082744	Válido	211,10827	1,414214	298,5521848	328,5521848	7944764256	76,6932	103591508,2	
					Válidos	77						Somatoria	1957377883
					Censurados	15						Somatoria ^{1/4}	210,33845
										K0	240,33845		
										Kjc Médio	221,9128018		
											191,9128018		
											2,741611454		
										Ln	1,008545869		
										T-T0	53,0797691		
25	-20	78,9	16.253,400	127,488823	Válido					90327358,3	62,6932	1440783,981	
25	-20	102,7	21.156,200	145,4517102	Válido					177664837,2	62,6932	2833877,313	
25	-20	258,8	53.312,800	230,8956474	Válido					1628853817	62,6932	25981347,53	
25	-20	723,7	149.082,200	386,1116419	Censurado					0	62,6932	4,073937366	
25	-20	772,5	159.135,000	398,9172847	Censurado					0	62,6932	4,073937366	
25	-20	798,3	164.449,800	405,5241053	Censurado					0	62,6932	4,073937366	
25	-20	914,9	188.469,400	434,1306255	Censurado					0	62,6932	4,073937366	
25	-20	1133,7	233.542,200	483,2620407	Censurado					0	62,6932	4,073937366	
25	-20	1340	276.040,000	525,3950894	Censurado					0	62,6932	4,073937366	
25	-20	1348,6	277.811,600	527,0783623	Censurado					0	62,6932	4,073937366	
25	-20	1361,1	280.386,600	529,5154389	Censurado					0	62,6932	4,073937366	
25	-20	1368,5	281.911,000	530,9529169	Censurado					0	62,6932	4,073937366	
25	-20	1368,6	281.931,600	530,9723157	Censurado					0	62,6932	4,073937366	
25	-20	1371,1	282.446,600	531,4570538	Censurado					0	62,6932	4,073937366	
25	-20	1381,3	284.547,800	533,4302204	Censurado					0	62,6932	4,073937366	
25	-20	1391	286.546,000	535,2999159	Censurado					0	62,6932	4,073937366	
25	-20	1408,2	290.089,200	538,5992945	Censurado					0	62,6932	4,073937366	
25	-20	1436,3	295.877,800	543,9465047	Censurado					0	62,6932	4,073937366	
25	-20	1459,7	300.698,200	548,3595536	Censurado					0	62,6932	4,073937366	
25	-20	1472,5	303.335,000	550,7585678	Censurado					0	62,6932	4,073937366	
25	-20	1473,7	303.582,200	550,9829398	Censurado					0	62,6932	4,073937366	
25	-20	1480,1	304.900,600	552,178051	Censurado					0	62,6932	4,073937366	
25	-20	1496,6	308.299,600	555,2473323	Censurado					0	62,6932	4,073937366	
25	-20	1497,2	308.423,200	555,3586229	Censurado					0	62,6932	4,073937366	
25	-20	1499	308.794,000	555,6923609	Censurado					0	62,6932	4,073937366	
25	-20	1524,5	314.047,000	560,398965	Censurado					0	62,6932	4,073937366	
25	-20	1547,8	318.846,800	564,6652105	Censurado					0	62,6932	4,073937366	
25	-20	1553,3	319.979,800	565,6675702	Censurado					0	62,6932	4,073937366	

specimen	test W, mm	fracture	E*Jc	Raiz(E*Jc)	Limite	Jc - 30	Conv Pol	Mult	Mult + 30	Kjc-30 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
width W,	temperature	resistance										
mm	centigrade	Jo, N/mm										
25	-20	1554,5	320.227,000	565,8860309	Censurado					0	62,6932	4,073937366
25	-20	1560,5	321.463,000	566,9770718	Censurado					0	62,6932	4,073937366
25	-20	1575	324.450,000	569,6051264	Censurado					0	62,6932	4,073937366
50	-20	139	28.634,000	169,2158385	Válido	139,21584	1,189207	165,5564657	195,5564657	751250174,2	62,6932	11982961,06
50	-20	162	33.372,000	182,6800482	Válido	152,68005	1,189207	181,5681996	211,5681996	1086823821	62,6932	17335593,36
50	-20	168,1	34.628,600	186,0876138	Válido	156,08761	1,189207	185,6205009	215,6205009	1187144981	62,6932	18935785,4
50	-20	180,6	37.203,600	192,8823476	Válido	162,88235	1,189207	193,7008466	223,7008466	1407751749	62,6932	22454616,28
50	-20	195,2	40.211,200	200,5273049	Válido	170,5273	1,189207	202,7922843	232,7922843	1691241818	62,6932	26976479,4
50	-20	256	52.736,000	229,6432015	Válido	199,6432	1,189207	237,4171157	267,4171157	3177225931	62,6932	50678956,1
50	-20	259	53.354,000	230,984848	Válido	200,98485	1,189207	239,0126112	269,0126112	3263497366	62,6932	52055045,3
50	-20	291	59.946,000	244,8387224	Válido	214,83872	1,189207	255,4877373	285,4877373	4260692975	62,6932	67961006,53
50	-20	326,5	67.259,000	259,3434017	Válido	229,3434	1,189207	272,7368051	302,7368051	5533182502	62,6932	88258096,61
50	-20	328,8	67.732,800	260,2552593	Válido	230,25526	1,189207	273,8211926	303,8211926	5621707313	62,6932	89670128,71
50	-20	330	67.980,000	260,7297451	Válido	230,72975	1,189207	274,3854546	304,3854546	5668189237	62,6932	90411547,62
50	-20	362,3	74.633,800	273,191874	Válido	243,19187	1,189207	289,2055068	319,2055068	6995620356	62,6932	111584994,2
50	-20	380	78.280,000	279,7856322	Válido	249,78563	1,189207	297,0468511	327,0468511	7785738474	62,6932	124187925,9
50	-20	392	80.752,000	284,1689638	Válido	254,16896	1,189207	302,2595402	332,2595402	8346801192	62,6932	133137265,2
50	-20	417	85.902,000	293,0904297	Válido	263,09043	1,189207	312,8690109	342,8690109	9581868292	62,6932	152837441,6
50	-20	447	92.082,000	303,4501607	Válido	273,45016	1,189207	325,1888766	355,1888766	11182598367	62,6932	178370195,9
50	-20	480	98.880,000	314,4519041	Censurado	284,4519	1,189207	338,2722282	368,2722282	0	62,6932	5,761417506
50	-20	486,8	100.280,800	316,6714386	Censurado	286,67144	1,189207	340,9117144	370,9117144	0	62,6932	5,761417506
50	-20	502	103.412,000	321,5773624	Censurado	291,57736	1,189207	346,7458739	376,7458739	0	62,6932	5,761417506
50	-20	512	105.472,000	324,7645301	Censurado	294,76453	1,189207	350,5360764	380,5360764	0	62,6932	5,761417506
50	-20	555	114.330,000	338,127195	Censurado	308,1272	1,189207	366,4270526	396,4270526	0	62,6932	5,761417506
50	-20	648,8	133.652,800	365,5855577	Censurado	335,58556	1,189207	399,0807329	429,0807329	0	62,6932	5,761417506
50	-20	655,6	135.053,600	367,4963945	Censurado	337,49639	1,189207	401,3531137	431,3531137	0	62,6932	5,761417506
50	-20	695	143.170,000	378,3781178	Censurado	348,37812	1,189207	414,2937364	444,2937364	0	62,6932	5,761417506
50	-20	807	166.242,000	407,7278504	Censurado	377,72785	1,189207	449,1966472	479,1966472	0	62,6932	5,761417506
50	-20	820	168.920,000	410,9987835	Censurado	380,99878	1,189207	453,0864641	483,0864641	0	62,6932	5,761417506
50	-20	1017	209.502,000	457,7138844	Censurado	427,71388	1,189207	508,6403945	538,6403945	0	62,6932	5,761417506
50	-20	1266	260.796,000	510,6818971	Censurado	480,6819	1,189207	571,6303321	601,6303321	0	62,6932	5,761417506
50	-20	1582	325.892,000	570,8695122	Censurado	540,86951	1,189207	643,2058722	673,2058722	0	62,6932	5,761417506
50	-20	1619	333.514,000	577,5067099	Censurado	547,50671	1,189207	651,0988749	681,0988749	0	62,6932	5,761417506
100	-20	58,6	12.071,600	109,8708333	Válido	79,870833	1,414214	112,9544156	142,9544156	162784425,9	62,6932	2596524,439
100	-20	74,4	15.326,400	123,7998384	Válido	93,799838	1,414214	132,6530037	162,6530037	309648052,5	62,6932	4939101,091
100	-20	82,8	17.056,800	130,6016845	Válido	100,60168	1,414214	142,2722666	172,2722666	409714187,2	62,6932	6535225,307
100	-20	100,6	20.723,600	143,956938	Válido	113,95694	1,414214	161,1594473	191,1594473	674563870,4	62,6932	10759761,35

specimen	test W, mm	fracture	E*Jc	Raiz(E*Jc)	Limite	Jc - 30	Conv Pol	Mult	Mult + 30	Kjc-30 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
width W,	temperature	resistance										
mm	centigrade	Jo, N/mm										
100	-20	112,2	23.113,200	152,0302601	Válido	122,03026	1,414214	172,5768489	202,5768489	887013316,4	62,6932	14148477,29
100	-20	123,7	25.482,200	159,6314505	Válido	129,63145	1,414214	183,3265555	213,3265555	1129539737	62,6932	18016941,83
100	-20	130,8	26.944,800	164,1487131	Válido	134,14871	1,414214	189,7149294	219,7149294	1295406387	62,6932	20662629,87
100	-20	133,4	27.480,400	165,7721328	Válido	135,77213	1,414214	192,0107915	222,0107915	1359260047	62,6932	21681140,01
100	-20	186,1	38.336,600	195,7973442	Válido	165,79734	1,414214	234,4728528	264,4728528	3022527562	62,6932	48211409,88
100	-20	188,4	38.810,400	197,0035533	Válido	167,00355	1,414214	236,17869	266,17869	3111450080	62,6932	49629785,68
100	-20	191,7	39.490,200	198,721413	Válido	168,72141	1,414214	238,6081106	268,6081106	3241461048	62,6932	51703550,75
100	-20	193	39.758,000	199,3940822	Válido	169,39408	1,414214	239,5594084	269,5594084	3293464052	62,6932	52533034,71
100	-20	212,3	43.733,800	209,1262776	Válido	179,12628	1,414214	253,3228112	283,3228112	4118102913	62,6932	65686596,21
100	-20	212,5	43.775,000	209,2247595	Válido	179,22476	1,414214	253,4620856	283,4620856	4127166757	62,6932	65831170,79
100	-20	223	45.938,000	214,3315189	Válido	184,33152	1,414214	260,684134	290,684134	4618047528	62,6932	73661059,38
100	-20	224,4	46.226,400	215,0032558	Válido	185,00326	1,414214	261,6341134	291,6341134	4685732340	62,6932	74740679,05
100	-20	231,2	47.627,200	218,2365689	Válido	188,23657	1,414214	266,2067087	296,2067087	5021991619	62,6932	80104247,65
100	-20	247,3	50.943,800	225,7073326	Válido	195,70733	1,414214	276,7719641	306,7719641	5867976724	62,6932	93598296,54
100	-20	288,5	59.431,000	243,7847411	Válido	213,78474	1,414214	302,3372803	332,3372803	8355391580	62,6932	133274287,8
100	-20	299,8	61.758,800	248,5131787	Válido	218,51318	1,414214	309,0243009	339,0243009	9119489559	62,6932	145462180,3
100	-20	301,3	62.067,800	249,1341004	Válido	219,1341	1,414214	309,9024168	339,9024168	9223587087	62,6932	147122608
100	-20	315,9	65.075,400	255,0988044	Válido	225,0988	1,414214	318,337782	348,337782	10269581464	62,6932	163806943,4
100	-20	318,2	65.549,200	256,02578	Válido	226,02578	1,414214	319,6487235	349,6487235	10439793239	62,6932	166521939,2
100	-20	324,6	66.867,600	258,5877027	Válido	228,5877	1,414214	323,2718294	353,2718294	10921227238	62,6932	174201145,2
100	-20	334,9	68.989,400	262,6583332	Válido	232,65833	1,414214	329,0285702	359,0285702	11720184299	62,6932	186945064,2
100	-20	371,9	76.611,400	276,7876442	Válido	246,78764	1,414214	349,0104335	379,0104335	14837257732	62,6932	236664546,3
100	-20	373,5	76.941,000	277,3824075	Válido	247,38241	1,414214	349,8515558	379,8515558	14980808012	62,6932	238954272,7
100	-20	384,1	79.124,600	281,2909526	Válido	251,29095	1,414214	355,3790732	385,3790732	15950246598	62,6932	254417490,2
100	-20	588,7	121.272,200	348,2415828	Válido	318,24158	1,414214	450,0615625	480,0615625	41028694146	62,6932	654436113,4
100	-20	683,1	140.718,600	375,1247792	Censurado	345,12478	1,414214	488,0801435	518,0801435	0	62,6932	8,14787473
200	-20	112	23.072,000	151,8947004	Válido	121,8947	1,681793	205,0016332	235,0016332	1766156905	62,6932	28171426,97
200	-20	117	24.102,000	155,2481884	Válido	125,24819	1,681793	210,6415053	240,6415053	1968683034	62,6932	31401859,12
200	-20	125	25.750,000	160,4680654	Válido	130,46807	1,681793	219,4202569	249,4202569	2317965016	62,6932	36973148,86
200	-20	162	33.372,000	182,6800482	Válido	152,68005	1,681793	256,7762104	286,7762104	4347295285	62,6932	69342373,42
200	-20	162	33.372,000	182,6800482	Válido	152,68005	1,681793	256,7762104	286,7762104	4347295285	62,6932	69342373,42
200	-20	166	34.196,000	184,921605	Válido	154,92161	1,681793	260,5460446	290,5460446	4608270224	62,6932	73505104,61
200	-20	168	34.608,000	186,0322553	Válido	156,03226	1,681793	262,4139282	292,4139282	4741846925	62,6932	75635745,58
200	-20	175	36.050,000	189,8683755	Válido	159,86838	1,681793	268,8654877	298,8654877	5225648986	62,6932	83352723,83
200	-20	179	36.874,000	192,0260399	Válido	162,02604	1,681793	272,4942323	302,4942323	5513523842	62,6932	87944527,35
200	-20	179	36.874,000	192,0260399	Válido	162,02604	1,681793	272,4942323	302,4942323	5513523842	62,6932	87944527,35
200	-20	187	38.522,000	196,2702219	Válido	166,27022	1,681793	279,6320671	309,6320671	6114316172	62,6932	97527581,5
200	-20	199	40.994,000	202,4697508	Válido	172,46975	1,681793	290,0583904	320,0583904	7078508056	62,6932	112907110,4

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 30	Conv Pol	Mult	Mult + 30	Kjc-30 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068	
200	-20	234	48.204,000	219,5540936	Válido	189,55409	1,681793	318,7907155	348,7907155	10328152886	62,6932	164741198,2	
200	-20	236	48.616,000	220,4903626	Válido	190,49036	1,681793	320,3653261	350,3653261	10533726085	62,6932	168020233,2	
200	-20	239	49.234,000	221,8873588	Válido	191,88736	1,681793	322,7147843	352,7147843	10846146035	62,6932	173003548	
					Válidos	63						Somatoria	5883753955
					Censurados	43						Somatoria ^{1/4}	276,957816
										K0	306,957816		
										Kjc Médio	282,6963113		
											252,6963113		
											3,609947304		
										Ln	1,283693175		
										T-T0	67,56077181		

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
25	-91	19,9	0,020	4.099,400	64,03	Válido					3757153,118	109,6932	34251,4679
25	-91	21,3	0,021	4.387,800	66,24	Válido					4571818,671	109,6932	41678,2323
25	-91	23,1	0,023	4.758,600	68,98	Válido					5756620,047	109,6932	52479,279
25	-91	23,7	0,024	4.882,200	69,87	Válido					6186613,242	109,6932	56399,24118
25	-91	29,1	0,291	5.994,600	77,42	Válido					10874217,93	109,6932	99133,01767
25	-91	29,4	0,029	6.056,400	77,82	Válido					11178891,73	109,6932	101910,5262
25	-91	38,6	0,039	7.951,600	89,17	Válido					22893643,32	109,6932	208706,1305
25	-91	39,7	0,040	8.178,200	90,43	Válido					24610171,27	109,6932	224354,575
25	-91	42,3	0,042	8.713,800	93,35	Válido					28943222,01	109,6932	263856,1188
25	-91	46,3	0,046	9.537,800	97,66	Válido					36376984,58	109,6932	331624,7915
25	-91	47,3	0,473	9.743,800	98,71	Válido					38382639,98	109,6932	349909,0188
25	-91	48,9	0,489	10.073,400	100,37	Válido					41715410,74	109,6932	380291,6747
25	-91	51,4	0,514	10.588,400	102,90	Válido					47229908,47	109,6932	430563,6856
25	-91	52	0,052	10.712,000	103,50	Válido					48609457,63	109,6932	443140,1183
25	-91	55,9	0,056	11.515,400	107,31	Válido					58110231,58	109,6932	529752,36
25	-91	56,6	0,566	11.659,600	107,98	Válido					59914022,7	109,6932	546196,3248
25	-91	59,4	0,594	12.236,400	110,62	Válido					67431515,97	109,6932	614728,3147
25	-91	63,3	0,063	13.039,800	114,19	Válido					78714553,27	109,6932	717588,2668
25	-91	68,5	0,069	14.111,000	118,79	Válido					95246099,01	109,6932	868295,3821
25	-91	70,2	0,070	14.461,200	120,25	Válido					101022818,4	109,6932	920957,8934
25	-91	70,6	0,071	14.543,600	120,60	Válido					102408855,1	109,6932	933593,4688
25	-91	71,4	0,071	14.708,400	121,28	Válido					105211635	109,6932	959144,55
25	-91	76	0,076	15.656,000	125,12	Válido					122125539,4	109,6932	1113337,376
25	-91	76,5	0,077	15.759,000	125,53	Válido					124046262,3	109,6932	1130847,33
25	-91	76,6	0,766	15.779,600	125,62	Válido					124432349,2	109,6932	1134367,027
25	-91	76,8	0,077	15.820,800	125,78	Válido					125206466,4	109,6932	1141424,139
25	-91	77	0,077	15.862,000	125,94	Válido					125983175,5	109,6932	1148504,88
25	-91	77,2	0,077	15.903,200	126,11	Válido					126762477,6	109,6932	1155609,26
25	-91	93,9	0,939	19.343,400	139,08	Válido					201077445,6	109,6932	1833089,431
25	-91	112,8	0,113	23.236,800	152,44	Válido					307628845,9	109,6932	2804447,731
25	-91	124,3	0,124	25.605,800	160,02	Válido					384358967,4	109,6932	3503945,252
50	-91	14,9	0,149	3.069,400	55,40	Válido	35,40	1,189207	42,10	62,10	3141588,752	109,6932	28639,77669
50	-91	18,3	0,183	3.769,800	61,40	Válido	41,40	1,189207	49,23	69,23	5874578,163	109,6932	53554,62475
50	-91	18,8	0,188	3.872,800	62,23	Válido	42,23	1,189207	50,22	70,22	6361937,218	109,6932	57997,55334
50	-91	20,2	0,202	4.161,200	64,51	Válido	44,51	1,189207	52,93	72,93	7847972,75	109,6932	71544,75163
50	-91	22,4	0,224	4.614,400	67,93	Válido	47,93	1,189207	57,00	77,00	10554485,37	109,6932	96218,22837
50	-91	24,6	0,246	5.067,600	71,19	Válido	51,19	1,189207	60,87	80,87	13730025,15	109,6932	125167,514
50	-91	27,7	0,277	5.706,200	75,54	Válido	55,54	1,189207	66,05	86,05	19029813,55	109,6932	173482,1626
50	-91	30,2	0,302	6.221,200	78,87	Válido	58,87	1,189207	70,01	90,01	24029315,59	109,6932	219059,2999
50	-91	30,4	0,304	6.262,400	79,14	Válido	59,14	1,189207	70,32	90,32	24457834,96	109,6932	222965,8262
50	-91	30,6	0,306	6.303,600	79,40	Válido	59,40	1,189207	70,63	90,63	24890624,91	109,6932	226911,2845
50	-91	31,7	0,317	6.530,200	80,81	Válido	60,81	1,189207	72,32	92,32	27347655,05	109,6932	249310,3952
50	-91	34,3	0,343	7.065,800	84,06	Válido	64,06	1,189207	76,18	96,18	33676890,66	109,6932	307009,8298
50	-91	41,5	0,415	8.549,000	92,46	Válido	72,46	1,189207	86,17	106,17	55136926,54	109,6932	502646,7141

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
50	-91	41,6	0,416	8.569,600	92,57	Válido	72,57	1,189207	86,30	106,30	55476566,17	109,6932	505742,9829
50	-91	45,3	0,453	9.331,800	96,60	Válido	76,60	1,189207	91,09	111,09	68860987,42	109,6932	627759,8559
50	-91	46,1	0,461	9.496,600	97,45	Válido	77,45	1,189207	92,10	112,10	71965923,79	109,6932	656065,4971
50	-91	46,5	0,465	9.579,000	97,87	Válido	77,87	1,189207	92,61	112,61	73546747,77	109,6932	670476,8187
50	-91	47,3	0,473	9.743,800	98,71	Válido	78,71	1,189207	93,60	113,60	76765279,96	109,6932	699818,0376
50	-91	48,7	0,487	10.032,200	100,16	Válido	80,16	1,189207	95,33	115,33	82580916,19	109,6932	752835,3279
50	-91	52,7	0,527	10.856,200	104,19	Válido	84,19	1,189207	100,12	120,12	100492995,4	109,6932	916127,849
50	-91	54,6	0,546	11.247,600	106,05	Válido	86,05	1,189207	102,34	122,34	109680250,4	109,6932	999881,947
50	-91	55,6	0,556	11.453,600	107,02	Válido	87,02	1,189207	103,49	123,49	114692790,5	109,6932	1045577,944
50	-91	57,4	0,574	11.824,400	108,74	Válido	88,74	1,189207	105,53	125,53	124024878,2	109,6932	1130652,385
50	-91	58,7	0,587	12.092,200	109,96	Válido	89,96	1,189207	106,99	126,99	131013317,9	109,6932	1194361,346
50	-91	59,1	0,591	12.174,600	110,34	Válido	90,34	1,189207	107,43	127,43	133205709,4	109,6932	1214347,921
50	-91	67	0,670	13.802,000	117,48	Válido	97,48	1,189207	115,93	135,93	180603506,3	109,6932	1646442,134
50	-91	75,7	0,757	15.594,200	124,88	Válido	104,88	1,189207	124,72	144,72	241961740,5	109,6932	2205804,375
50	-91	76,2	0,762	15.697,200	125,29	Válido	105,29	1,189207	125,21	145,21	245783773,5	109,6932	2240647,31
50	-91	78,6	0,786	16.191,600	127,25	Válido	107,25	1,189207	127,54	147,54	264580565	109,6932	2412005,165
50	-91	81	0,810	16.686,000	129,17	Válido	109,17	1,189207	129,83	149,83	284126455,3	109,6932	2590192,057
50	-91	86	0,860	17.716,000	133,10	Válido	113,10	1,189207	134,50	154,50	327267529,4	109,6932	2983480,557
50	-91	86,5	0,865	17.819,000	133,49	Válido	113,49	1,189207	134,96	154,96	331762366,3	109,6932	3024456,997
50	-91	100,5	1,005	20.703,000	143,89	Válido	123,89	1,189207	147,33	167,33	471096740,4	109,6932	4294675,881
50	-91	117,8	1,178	24.266,800	155,78	Válido	135,78	1,189207	161,47	181,47	679748454,8	109,6932	6196814,887
100	-91	19,6	0,196	4.037,600	63,54	Válido	43,54	1,414214	61,58	81,58	14377982,62	109,6932	131074,5117
100	-91	19,7	0,197	4.058,200	63,70	Válido	43,70	1,414214	61,81	81,81	14593009,36	109,6932	133034,7676
100	-91	21,6	0,216	4.449,600	66,71	Válido	46,71	1,414214	66,05	86,05	19033798,98	109,6932	173518,495
100	-91	23,3	0,233	4.799,800	69,28	Válido	49,28	1,414214	69,69	89,69	23591934,17	109,6932	215071,9841
100	-91	25,4	0,254	5.232,400	72,34	Válido	52,34	1,414214	74,01	94,01	30008194,56	109,6932	273564,7657
100	-91	25,9	0,259	5.335,400	73,04	Válido	53,04	1,414214	75,02	95,02	31666440,05	109,6932	288681,8877
100	-91	27,7	0,277	5.706,200	75,54	Válido	55,54	1,414214	78,54	98,54	38059627,11	109,6932	346964,3251
100	-91	29,5	0,295	6.077,000	77,96	Válido	57,96	1,414214	81,96	101,96	45126025,84	109,6932	411383,9859
100	-91	32	0,320	6.592,000	81,19	Válido	61,19	1,414214	86,54	106,54	56080768,45	109,6932	511251,0935
100	-91	32,1	0,321	6.612,600	81,32	Válido	61,32	1,414214	86,72	106,72	56546917,14	109,6932	515500,6613
100	-91	32,9	0,329	6.777,400	82,32	Válido	62,32	1,414214	88,14	108,14	60354295,91	109,6932	550210,003
100	-91	33	0,330	6.798,000	82,45	Válido	62,45	1,414214	88,32	108,32	60840018,92	109,6932	554638,0169
100	-91	33,4	0,334	6.880,400	82,95	Válido	62,95	1,414214	89,02	109,02	62804767,08	109,6932	572549,3201
100	-91	35,8	0,358	7.374,800	85,88	Válido	65,88	1,414214	93,16	113,16	75333156,8	109,6932	686762,3226
100	-91	35,9	0,359	7.395,400	86,00	Válido	66,00	1,414214	93,33	113,33	75882898,66	109,6932	691773,9537
100	-91	37,6	0,376	7.745,600	88,01	Válido	68,01	1,414214	96,18	116,18	85571246,37	109,6932	780096,1807
100	-91	39,6	0,396	8.157,600	90,32	Válido	70,32	1,414214	99,45	119,45	97805085,15	109,6932	891623,958
100	-91	40,1	0,401	8.260,600	90,89	Válido	70,89	1,414214	100,25	120,25	101005968,5	109,6932	920804,2844
100	-91	40,6	0,406	8.363,600	91,45	Válido	71,45	1,414214	101,05	121,05	104264161,5	109,6932	950507,0645
100	-91	41,1	0,411	8.466,600	92,01	Válido	72,01	1,414214	101,84	121,84	107579828,9	109,6932	980733,8
100	-91	41,3	0,413	8.507,800	92,24	Válido	72,24	1,414214	102,16	122,16	108922225	109,6932	992971,5329
100	-91	41,3	0,413	8.507,800	92,24	Válido	72,24	1,414214	102,16	122,16	108922225	109,6932	992971,5329
100	-91	42,3	0,423	8.713,800	93,35	Válido	73,35	1,414214	103,73	123,73	115772888,1	109,6932	1055424,475

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068		
100	-91	42,7	0,427	8.796,200	93,79	Válido	73,79	1,414214	104,35	124,35	118578058,5	109,6932	1080997,35		
100	-91	45,6	0,456	9.393,600	96,92	Válido	76,92	1,414214	108,78	128,78	140032979,4	109,6932	1276587,604		
100	-91	46,6	0,466	9.599,600	97,98	Válido	77,98	1,414214	110,28	130,28	147889826,7	109,6932	1348213,26		
100	-91	47,6	0,476	9.805,600	99,02	Válido	79,02	1,414214	111,76	131,76	155983654,4	109,6932	1421999,307		
100	-91	49,2	0,492	10.135,200	100,67	Válido	80,67	1,414214	114,09	134,09	169429313	109,6932	1544574,44		
100	-91	53,7	0,537	11.062,200	105,18	Válido	85,18	1,414214	120,46	140,46	210547079,5	109,6932	1919417,79		
100	-91	126,4	1,264	26.038,400	161,36	Válido	141,36	1,414214	199,92	219,92	1597414266	109,6932	14562564,18		
200	-91	13,8	0,138	2.842,800	53,32	Válido	33,32	1,681793	56,03	76,03	9858281,639	109,6932	89871,40168		
200	-91	20,4	0,204	4.202,400	64,83	Válido	44,83	1,681793	75,39	95,39	32300322,8	109,6932	294460,5755		
200	-91	23	0,230	4.738,000	68,83	Válido	48,83	1,681793	82,13	102,13	45493388,84	109,6932	414732,9902		
200	-91	23,2	0,232	4.779,200	69,13	Válido	49,13	1,681793	82,63	102,63	46616451,6	109,6932	424971,207		
200	-91	25,4	0,254	5.232,400	72,34	Válido	52,34	1,681793	88,02	108,02	60016389,12	109,6932	547129,5314		
200	-91	25,6	0,256	5.273,600	72,62	Válido	52,62	1,681793	88,50	108,50	61330813,25	109,6932	559112,2627		
200	-91	25,8	0,258	5.314,800	72,90	Válido	52,90	1,681793	88,97	108,97	62661460,34	109,6932	571242,8878		
200	-91	30,2	0,302	6.221,200	78,87	Válido	58,87	1,681793	99,01	119,01	96117262,38	109,6932	876237,1996		
200	-91	33,9	0,339	6.983,400	83,57	Válido	63,57	1,681793	106,91	126,91	130620017,9	109,6932	1190775,89		
200	-91	36,9	0,369	7.601,400	87,19	Válido	67,19	1,681793	112,99	132,99	163006655,8	109,6932	1486023,343		
200	-91	38,8	0,388	7.992,800	89,40	Válido	69,40	1,681793	116,72	136,72	185604911,9	109,6932	1692036,625		
200	-91	40,9	0,409	8.425,400	91,79	Válido	71,79	1,681793	120,74	140,74	212493309,2	109,6932	1937160,272		
200	-91	44,6	0,446	9.187,600	95,85	Válido	75,85	1,681793	127,57	147,57	264824052,5	109,6932	2414224,879		
200	-91	44,8	0,448	9.228,800	96,07	Válido	76,07	1,681793	127,93	147,93	267834797,3	109,6932	2441671,838		
200	-91	50,7	0,507	10.444,200	102,20	Válido	82,20	1,681793	138,24	158,24	365183446,7	109,6932	3329134,775		
Total de Válidos						110							Soma dos K0	119461054,6	
						0							Somatoria^{1/4}	104,545799	
													anterior +20	124,545799	
													Kjc Médio	115,387587	
													KjcMedio - 30	85,38758701	
													-70	1,219822672	
													Ln	0,198705497	
													T - T0	10,45787031	
													T0	-101,4578703	
Mt															
25	-60	34	34.000,000	7.004,000	83,68990381	Válido					16454412,17	120,6932	136332,5537		
25	-60	40,2	40.200,000	8.281,200	91,00109889	Válido					25413254,26	120,6932	210560,7794		
25	-60	46,9	46.900,000	9.661,400	98,29242087	Válido					37573260,89	120,6932	311312,1609		
25	-60	52	52.000,000	10.712,000	103,4987923	Válido					48609457,63	120,6932	402752,2481		
25	-60	54,2	54.200,000	11.165,200	105,66551	Válido					53854750,56	120,6932	446211,9701		
25	-60	56,1	56.100,000	11.556,600	107,5016279	Válido					58622526,43	120,6932	485715,2386		
25	-60	62,3	62.300,000	12.833,800	113,2863628	Válido					75730816,98	120,6932	627465,4826		
25	-60	67,4	67.400,000	13.884,400	117,8320839	Válido					91606273,8	120,6932	759001,1185		
25	-60	68	68.000,000	14.008,000	118,355397	Válido					93582099,2	120,6932	775371,7624		
25	-60	69	69.000,000	14.214,000	119,2224811	Válido					96926008,89	120,6932	803077,629		
25	-60	74,6	74.600,000	15.367,600	123,9661244	Válido					116833508,7	120,6932	968020,64		
25	-60	78,2	78.200,000	16.109,200	126,9220233	Válido					130697919,3	120,6932	1082893,811		
25	-60	81,3	81.300,000	16.747,800	129,4132914	Válido					143311265,7	120,6932	1187401,326		

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
25	-60	81,4	81.400,000	16.768,400	129,4928569	Válido					143728585,3	120,6932	1190859,016
25	-60	82,3	82.300,000	16.953,800	130,2067587	Válido					147513890,6	120,6932	1222222,052
25	-60	90	90.000,000	18.540,000	136,1616686	Válido					182075439,7	120,6932	1508580,763
25	-60	90,4	90.400,000	18.622,400	136,4639146	Válido					183977848,2	120,6932	1524343,113
25	-60	100,3	100.300,000	20.661,800	143,7421302	Válido					234460859,4	120,6932	1942618,635
25	-60	112,2	112.200,000	23.113,200	152,0302601	Válido					303874261,2	120,6932	2517741,358
25	-60	120,3	120.300,000	24.781,800	157,4223618	Válido					356639656,8	120,6932	2954927,509
25	-60	123,4	123.400,000	25.420,400	159,4377622	Válido					378025952,7	120,6932	3132123,041
25	-60	127,4	127.400,000	26.244,400	162,0012346	Válido					406601035,8	120,6932	3368881,062
25	-60	129	129.000,000	26.574,000	163,0153367	Válido					418341020,6	120,6932	3468152,365
25	-60	140,9	140.900,000	29.025,400	170,3684243	Válido					511242082,6	120,6932	4235881,413
25	-60	141,9	141.900,000	29.231,400	170,9719275	Válido					519499100,1	120,6932	4304294,692
25	-60	142,5	142.500,000	29.355,000	171,3330091	Válido					524486930,2	120,6932	4345621,213
25	-60	143,1	143.100,000	29.478,600	171,6933313	Válido					529499988,6	120,6932	4387156,762
25	-60	191,8	191.800,000	39.510,800	198,7732376	Válido					1021433322	120,6932	8463056,096
25	-60	193,2	193.200,000	39.799,200	199,4973684	Válido					1038083632	120,6932	8601011,753
25	-60	261	261.000,000	53.766,000	231,8749663	Válido					2015202002	120,6932	2,116176969
25	-60	284,9	284.900,000	58.689,400	242,2589524	Válido					2440265341	120,6932	2,116176969
50	-60	46,7	46.700,000	9.620,200	98,08261824	Válido	78,082618	1,189207	92,85640516	112,8564052	74344263,88	120,6932	615977,2372
50	-60	48	48.000,000	9.888,000	99,43842316	Válido	79,438423	1,189207	94,46873802	114,468738	79643888,41	120,6932	659887,1221
50	-60	49,9	49.900,000	10.279,400	101,3873759	Válido	81,387376	1,189207	96,78644654	116,7864465	87752233,9	120,6932	727068,583
50	-60	52,9	52.900,000	10.897,400	104,3906126	Válido	84,390613	1,189207	100,3579169	120,3579169	101439372,4	120,6932	840472,9713
50	-60	59,4	59.400,000	12.236,400	110,6182625	Válido	90,618263	1,189207	107,7638825	127,7638825	134863031,9	120,6932	1117403,731
50	-60	63,1	63.100,000	12.998,600	114,0114029	Válido	94,011403	1,189207	111,7990293	131,7990293	156225574,6	120,6932	1294402,457
50	-60	68,1	68.100,000	14.028,600	118,4423911	Válido	98,442391	1,189207	117,0683919	137,0683919	187827254,5	120,6932	1556237,257
50	-60	68,2	68.200,000	14.049,200	118,5293213	Válido	98,529321	1,189207	117,1717699	137,1717699	188491582,3	120,6932	1561741,525
50	-60	69,2	69.200,000	14.255,200	119,3951423	Válido	99,395142	1,189207	118,2014104	138,2014104	195204863,8	120,6932	1617364,224
50	-60	75,1	75.100,000	15.470,600	124,3808667	Válido	104,38087	1,189207	124,1304693	144,1304693	237417971,4	120,6932	1967119,701
50	-60	76,2	76.200,000	15.697,200	125,2884671	Válido	105,28847	1,189207	125,2097943	145,2097943	245783773,5	120,6932	2036434,311
50	-60	76,5	76.500,000	15.759,000	125,5348557	Válido	105,53486	1,189207	125,5028013	145,5028013	248092524,6	120,6932	2055563,401
50	-60	80,6	80.600,000	16.603,600	128,8549572	Válido	108,85496	1,189207	129,4510896	149,4510896	280816641,8	120,6932	2326698,122
50	-60	81,9	81.900,000	16.871,400	129,8899534	Válido	109,88995	1,189207	130,6819145	150,6819145	291649981,3	120,6932	2416457,441
50	-60	82,9	82.900,000	17.077,400	130,6805265	Válido	110,68053	1,189207	131,6220696	151,6220696	300133768,2	120,6932	2486749,611
50	-60	86,1	86.100,000	17.736,600	133,1788271	Válido	113,17883	1,189207	134,5930665	154,5930665	328163860,5	120,6932	2718992,126
50	-60	86,2	86.200,000	17.757,200	133,2561443	Válido	113,25614	1,189207	134,6850126	154,6850126	329061509,5	120,6932	2726429,571
50	-60	94,4	94.400,000	19.446,400	139,4503496	Válido	119,45035	1,189207	142,0512056	162,0512056	407173679	120,6932	3373625,681
50	-60	95,1	95.100,000	19.590,600	139,9664245	Válido	119,96642	1,189207	142,6649256	162,6649256	414256047,7	120,6932	3432306,44
50	-60	96,8	96.800,000	19.940,800	141,2118975	Válido	121,2119	1,189207	144,1460509	164,1460509	431728774,9	120,6932	3577076,214
50	-60	97	97.000,000	19.982,000	141,3577023	Válido	121,3577	1,189207	144,319443	164,319443	433809817,9	120,6932	3594318,635
50	-60	98,6	98.600,000	20.311,600	142,5187707	Válido	122,51877	1,189207	145,7001938	165,7001938	450651185,7	120,6932	3733857,299
50	-60	109,7	109.700,000	22.598,200	150,326977	Válido	130,32698	1,189207	154,9857683	174,9857683	576988665,5	120,6932	4780622,814
50	-60	112,9	112.900,000	23.257,400	152,5037704	Válido	132,50377	1,189207	157,5744266	177,5744266	616513997,7	120,6932	5108108,806
50	-60	127,4	127.400,000	26.244,400	162,0012346	Válido	142,00123	1,189207	168,8688785	188,8688785	813202071,6	120,6932	6737762,125
50	-60	129,1	129.100,000	26.594,600	163,0785087	Válido	143,07851	1,189207	170,1499806	190,1499806	838161320,6	120,6932	6944561,256

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
50	-60	129,9	129.900,000	26.759,400	163,5830065	Válido	143,58301	1,189207	170,7499329	190,7499329	850045487,8	120,6932	7043027,178
50	-60	142,3	142.300,000	29.313,800	171,2127332	Válido	151,21273	1,189207	179,8232582	199,8232582	1045643035	120,6932	8663644,97
50	-60	147,4	147.400,000	30.364,400	174,2538378	Válido	154,25384	1,189207	183,4397615	203,4397615	1132332332	120,6932	9381906,617
50	-60	147,8	147.800,000	30.446,800	174,4901143	Válido	154,49011	1,189207	183,7207432	203,7207432	1139286035	120,6932	9439521,324
50	-60	163,2	163.200,000	33.619,200	183,3553926	Válido	163,35539	1,189207	194,2633952	214,2633952	1424176774	120,6932	11799975,26
50	-60	164,7	164.700,000	33.928,200	184,1960912	Válido	164,19609	1,189207	195,2631599	215,2631599	1453721629	120,6932	12044768,3
50	-60	176,8	176.800,000	36.420,800	190,8423433	Válido	170,84234	1,189207	203,1669302	223,1669302	1703774345	120,6932	14116572,8
50	-60	198	198.000,000	40.788,000	201,9603922	Válido	181,96039	1,189207	216,388593	236,388593	2192489147	120,6932	18165805,09
100	-60	30,4	30.400,000	6.262,400	79,13532713	Válido	59,135327	1,414214	83,62998164	103,6299816	48915669,93	120,6932	405289,3612
100	-60	57,5	57.500,000	11.845,000	108,8347371	Válido	88,834737	1,414214	125,63129	145,63129	249110066,1	120,6932	2063994,211
100	-60	63,3	63.300,000	13.039,800	114,1919437	Válido	94,191944	1,414214	133,2075242	153,2075242	314858213,1	120,6932	2608748,572
100	-60	64	64.000,000	13.184,000	114,8216008	Válido	94,821601	1,414214	134,0979938	154,0979938	323362104,1	120,6932	2679207,313
100	-60	68,5	68.500,000	14.111,000	118,7897302	Válido	98,78973	1,414214	139,7097763	159,7097763	380984396	120,6932	3156635,138
100	-60	82,8	82.800,000	17.056,800	130,6016845	Válido	110,60168	1,414214	156,4144023	176,4144023	598558989,3	120,6932	4959343,106
100	-60	86,1	86.100,000	17.736,600	133,1788271	Válido	113,17883	1,414214	160,0590323	180,0590323	656327721	120,6932	5437984,253
100	-60	88,3	88.300,000	18.189,800	134,8695666	Válido	114,86957	1,414214	162,450099	182,450099	696433929,9	120,6932	5770283,081
100	-60	89,4	89.400,000	18.416,400	135,7070374	Válido	115,70704	1,414214	163,6344616	183,6344616	716966868,3	120,6932	5940408,145
100	-60	94,5	94.500,000	19.467,000	139,5241915	Válido	119,52419	1,414214	169,0327326	189,0327326	816362880,3	120,6932	6763950,913
100	-60	102,2	102.200,000	21.053,200	145,0972088	Válido	125,09721	1,414214	176,9141693	196,9141693	979603820,3	120,6932	8116478,975
100	-60	106,3	106.300,000	21.897,800	147,9790526	Válido	127,97905	1,414214	180,9897118	200,9897118	1073039117	120,6932	8890634,414
100	-60	107,7	107.700,000	22.186,200	148,9503273	Válido	128,95033	1,414214	182,3633017	202,3633017	1105986399	120,6932	9163618,161
100	-60	112,3	112.300,000	23.133,800	152,0979947	Válido	132,09799	1,414214	186,8147757	206,8147757	1217993278	120,6932	10091647,89
100	-60	113	113.000,000	23.278,000	152,5712948	Válido	132,57129	1,414214	187,4841231	207,4841231	1235543338	120,6932	10237058,41
100	-60	115,5	115.500,000	23.793,000	154,2497974	Válido	134,2498	1,414214	189,8578842	209,8578842	1299315284	120,6932	10765439,02
100	-60	128,1	128.100,000	26.388,600	162,4456832	Válido	142,44568	1,414214	201,4486171	221,4486171	1646861822	120,6932	13645025,75
100	-60	131,1	131.100,000	27.006,600	164,3368492	Válido	144,33685	1,414214	204,1231297	224,1231297	1736076561	120,6932	14384211,88
100	-60	132,7	132.700,000	27.336,200	165,3366263	Válido	145,33663	1,414214	205,537028	225,537028	1784679727	120,6932	14786911,99
100	-60	150,2	150.200,000	30.941,200	175,9011086	Válido	155,90111	1,414214	220,4774621	240,4774621	2362962366	120,6932	19578255,99
100	-60	153,5	153.500,000	31.621,000	177,8229457	Válido	157,82295	1,414214	223,1953502	243,1953502	2481650230	120,6932	20561640,84
100	-60	160,8	160.800,000	33.124,800	182,0021978	Válido	162,0022	1,414214	229,1057052	249,1057052	2755139650	120,6932	22827629,48
100	-60	168,9	168.900,000	34.793,400	186,5298904	Válido	166,52989	1,414214	235,5088295	255,5088295	3076300640	120,6932	25488599,53
100	-60	191,9	191.900,000	39.531,400	198,8250487	Válido	178,82505	1,414214	252,8968092	272,8968092	4090471768	120,6932	33891484,92
100	-60	225,7	225.700,000	46.494,200	215,6251377	Válido	195,62514	1,414214	276,6557228	296,6557228	5858124988	120,6932	48537324,29
100	-60	230	230.000,000	47.380,000	217,6694742	Válido	197,66947	1,414214	279,5468513	299,5468513	6106866407	120,6932	50598264,09
100	-60	241,9	241.900,000	49.831,400	223,2294783	Válido	203,22948	1,414214	287,4098845	307,4098845	6823493794	120,6932	56535859,47
100	-60	265,4	265.400,000	54.672,400	233,8212993	Válido	213,8213	1,414214	302,3889814	322,3889814	8361108288	120,6932	69275719,66
100	-60	282,6	282.600,000	58.215,600	241,2790915	Válido	221,27909	1,414214	312,9358923	332,9358923	9590064104	120,6932	79458197,35
100	-60	415,3	415.300,000	85.551,800	292,4923931	Válido	272,49239	1,414214	385,3624379	405,3624379	22053499959	120,6932	182723632,8
25	-60	38,4	38.400,000	7.910,400	88,9404295	Válido					22588944,53	120,6932	187160,0433
25	-60	46,1	46.100,000	9.496,600	97,45050026	Válido					35982961,89	120,6932	298135,7847
25	-60	55	55.000,000	11.330,000	106,4424727	Válido					55835283,59	120,6932	462621,6191
25	-60	63,6	63.600,000	13.101,600	114,4622208	Válido					79621912,89	120,6932	659705,0446
25	-60	64,1	64.100,000	13.204,600	114,9112701	Válido					81146751,92	120,6932	672339,0541

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068	
25	-60	77,7	77.700,000	16.006,200	126,5156117	Válido					128722084,2	120,6932	1066523,086	
25	-60	78,7	78.700,000	16.212,200	127,3271377	Válido					132689998,7	120,6932	1099399,127	
25	-60	87,8	87.800,000	18.086,800	134,4871741	Válido					171801655	120,6932	1423457,618	
25	-60	89,1	89.100,000	18.354,600	135,4791497	Válido					177833800,3	120,6932	1473436,783	
25	-60	116,3	116.300,000	23.957,800	154,783074	Válido					330020888	120,6932	2734378,474	
25	-60	128,7	128.700,000	26.512,200	162,8256737	Válido					416126261,3	120,6932	3447802,041	
25	-60	129	129.000,000	26.574,000	163,0153367	Válido					418341020,6	120,6932	3466152,365	
25	-60	131,7	131.700,000	27.130,200	164,7124768	Válido					438554837,8	120,6932	3633633,36	
25	-60	133,7	133.700,000	27.542,200	165,9584285	Válido					453854572,7	120,6932	3760398,868	
25	-60	133,7	133.700,000	27.542,200	165,9584285	Válido					453854572,7	120,6932	3760398,868	
25	-60	140,7	140.700,000	28.984,200	170,2474669	Válido					509599080,2	120,6932	4222268,365	
25	-60	150,4	150.400,000	30.982,400	176,0181809	Válido					592517033	120,6932	4909282,652	
25	-60	164,6	164.600,000	33.907,600	184,140164	Válido					725871010,5	120,6932	6014183,156	
25	-60	166,1	166.100,000	34.216,600	184,9772959	Válido					740792750,6	120,6932	6137816,8	
25	-60	176	176.000,000	36.256,000	190,4100838	Válido					843298173,6	120,6932	6987122,502	
25	-60	197,6	197.600,000	40.705,600	201,7562886	Válido					1091334248	120,6932	9042218,182	
25	-60	200,2	200.200,000	41.241,200	203,0792949	Válido					1123458215	120,6932	9308380,379	
25	-60	217,1	217.100,000	44.722,600	211,4771855	Válido					1344213155	120,6932	11137439,02	
25	-60	219,5	219.500,000	45.217,000	212,6428931	Válido					1377247421	120,6932	11411143,47	
25	-60	234,5	234.500,000	48.307,000	219,7885347	Válido					1593243836	120,6932	13200775,49	
25	-60	275,9	275.900,000	56.835,400	238,4017617	Válido					2275226038	120,6932	18851319,19	
25	-60	369,1	369.100,000	76.034,600	275,7437216	Censurado					0	120,6932	2,116176969	
25	-60	373,6	373.600,000	76.961,600	277,4195379	Censurado					0	120,6932	2,116176969	
25	-60	427,1	427.100,000	87.982,600	296,6186103	Censurado					0	120,6932	2,116176969	
25	-60	678,2	678.200,000	139.709,200	373,7769388	Censurado					0	120,6932	2,116176969	
25	-60	687,7	687.700,000	141.666,200	376,3857064	Censurado					0	120,6932	2,116176969	
						T. Válidos	121						Soma dos K0	1104735033
						T. Censurados	5						Somatoria ^{1/4}	182,3116962
											anterior +20	202,3116962		
											Kjc Médio	186,3411916		
												156,3411916		
												2,233445594		
											LN	0,803545502		
											T - T0	42,29059979		
											T0	-102,2905998		
25	-40	61,6		12.689,600	112,6481247	Válido					73679476,71	76,6932	960704,1655	
25	-40	113,2		23.319,200	152,706254	Válido					310145554,3	76,6932	4043977,228	
25	-40	136,6		28.139,600	167,7486215	Válido					476533843,6	76,6932	6213508,415	
25	-40	139,3		28.695,800	169,3983471	Válido					498176423,4	76,6932	6495705,27	
25	-40	155,4		32.012,400	178,9200939	Válido					637845141,6	76,6932	8316840,889	
25	-40	165,5		34.093,000	184,6428986	Válido					734804848,9	76,6932	9581095,181	
25	-40	195,2		40.211,200	200,5273049	Válido					1062115127	76,6932	13848882,65	
25	-40	203,4		41.900,400	204,695872	Válido					1163667099	76,6932	15173015,33	
25	-40	233,2		48.039,200	219,1784661	Válido					1573872452	76,6932	20521668,83	
25	-40	251		51.706,000	227,3895336	Válido					1849896113	76,6932	24120731,86	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
25	-40	254,5		52.427,000	228,9694303	Válido					1906913682	76,6932	3,430412845
25	-40	264,8		54.548,800	233,5568453	Válido					2079955231	76,6932	3,430412845
25	-40	275,9		56.835,400	238,4017617	Válido					2275226038	76,6932	3,430412845
25	-40	283		58.298,000	241,4497877	Válido					2404922433	76,6932	3,430412845
25	-40	311,7		64.210,200	253,3973165	Válido					2967450160	76,6932	3,430412845
25	-40	349,2		71.935,200	268,2073824	Censurado					0	76,6932	3,430412845
25	-40	483,2		99.539,200	315,498336	Censurado					0	76,6932	3,430412845
25	-40	548,6		113.011,600	336,1719798	Censurado					0	76,6932	3,430412845
25	-40	562,8		115.936,800	340,4949339	Censurado					0	76,6932	3,430412845
25	-40	619,9		127.699,400	357,3505282	Censurado					0	76,6932	3,430412845
25	-40	758,7		156.292,200	395,3380832	Censurado					0	76,6932	3,430412845
25	-40	773,9		159.423,400	399,2785995	Censurado					0	76,6932	3,430412845
25	-40	1127,9		232.347,400	482,0242732	Censurado					0	76,6932	3,430412845
25	-40	1174		241.844,000	491,7763719	Censurado					0	76,6932	3,430412845
25	-40	1337,1		275.442,600	524,826257	Censurado					0	76,6932	3,430412845
25	-40	1337,2		275.463,200	524,8458821	Censurado					0	76,6932	3,430412845
25	-40	1433,6		295.321,600	543,4350007	Censurado					0	76,6932	3,430412845
25	-40	1544,1		318.084,600	563,9898935	Censurado					0	76,6932	3,430412845
25	-40	1573,3		324.099,800	569,2976374	Censurado					0	76,6932	3,430412845
25	-40	1714,3		353.145,800	594,2607172	Censurado					0	76,6932	3,430412845
50	-40	49,1		10.114,600	100,5713677	Válido	80,571368	1,189207	95,81604373	115,8160437	84285513,88	76,6932	1098995,92
50	-40	50,6		10.423,600	102,0960332	Válido	82,096033	1,189207	97,62918682	117,6291868	90848693,89	76,6932	1184572,998
50	-40	60,6		12.483,600	111,7300318	Válido	91,730032	1,189207	109,0860064	129,0860064	141604211,9	76,6932	1846372,455
50	-40	93,8		19.322,800	139,0064747	Válido	119,00647	1,189207	141,5233464	161,5233464	401155135,9	76,6932	5230648,035
50	-40	107,4		22.124,400	148,7427309	Válido	128,74273	1,189207	153,1017716	173,1017716	549440747,8	76,6932	7164139,035
50	-40	107,5		22.145,000	148,8119619	Válido	128,81196	1,189207	153,1841016	173,1841016	550623541,1	76,6932	7179561,436
50	-40	119		24.514,000	156,5694734	Válido	136,56947	1,189207	162,4093895	182,4093895	695736094,4	76,6932	9071679,032
50	-40	122,7		25.276,200	158,9849049	Válido	138,9849	1,189207	165,2818378	185,2818378	746277818,3	76,6932	9730690,834
50	-40	137,8		28.386,800	168,4838271	Válido	148,48383	1,189207	176,5780237	196,5780237	972179831	76,6932	12676219,42
50	-40	139,9		28.819,400	169,7627757	Válido	149,76278	1,189207	178,0989584	198,0989584	1006110121	76,6932	13118635,31
50	-40	166,5		34.299,000	185,199892	Válido	165,19989	1,189207	196,456887	216,456887	1489597834	76,6932	19422814,98
50	-40	167		34.402,000	185,4777615	Válido	165,47776	1,189207	196,7873313	216,7873313	1499645279	76,6932	19553823,28
50	-40	167		34.402,000	185,4777615	Válido	165,47776	1,189207	196,7873313	216,7873313	1499645279	76,6932	19553823,28
50	-40	168,9		34.793,400	186,5298904	Válido	166,52989	1,189207	198,0385305	218,0385305	1538150320	76,6932	20055889,18
50	-40	187		38.522,000	196,2702219	Válido	176,27022	1,189207	209,621802	229,621802	1930837836	76,6932	25176128,21
50	-40	205,3		42.291,800	205,6497022	Válido	185,6497	1,189207	220,7759467	240,7759467	2375784382	76,6932	30977770,93
50	-40	210		43.260,000	207,9903844	Válido	187,99038	1,189207	223,5595027	243,5595027	2497885571	76,6932	32569844,14
50	-40	212,8		43.836,800	209,3723955	Válido	189,3724	1,189207	225,2030001	245,2030001	2572152343	76,6932	33538206,03
50	-40	217,1		44.722,600	211,4771855	Válido	191,47719	1,189207	227,7060314	247,7060314	2688426309	76,6932	35054298,28
50	-40	219,3		45.175,800	212,545995	Válido	192,546	1,189207	228,9770672	248,9770672	2748957050	76,6932	35843556,53
50	-40	245		50.470,000	224,6552915	Válido	204,65529	1,189207	243,3775288	263,3775288	3508503451	76,6932	45747255,97
50	-40	251,8		51.870,800	227,7516191	Válido	207,75162	1,189207	247,0597036	267,0597036	3725698132	76,6932	48579249,95
50	-40	271,9		56.011,400	236,667277	Válido	216,66728	1,189207	257,6622674	277,6622674	4407611391	76,6932	57470693,51
50	-40	272,7		56.176,200	237,0151894	Válido	217,01519	1,189207	258,0760073	278,0760073	4435989652	76,6932	57840716,67

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
												Ln	0,956327143
												T-T0	50,33149756
												T0	-90,33149756
25	-20	78,9		16.253,400	127,488823	Válido					133491382,3	62,6932	2129280,086
25	-20	102,7		21.156,200	145,4517102	Válido					247688786	62,6932	3950807,839
25	-20	258,8		53.312,800	230,8956474	Válido					1978201225	62,6932	4,073937366
25	-20	723,7		149.082,200	386,1116419	Censurado					0	62,6932	4,073937366
25	-20	772,5		159.135,000	398,9172847	Censurado					0	62,6932	4,073937366
25	-20	798,3		164.449,800	405,5241053	Censurado					0	62,6932	4,073937366
25	-20	914,9		188.469,400	434,1306255	Censurado					0	62,6932	4,073937366
25	-20	1133,7		233.542,200	483,2620407	Censurado					0	62,6932	4,073937366
25	-20	1340		276.040,000	525,3950894	Censurado					0	62,6932	4,073937366
25	-20	1348,6		277.811,600	527,0783623	Censurado					0	62,6932	4,073937366
25	-20	1361,1		280.386,600	529,5154389	Censurado					0	62,6932	4,073937366
25	-20	1368,5		281.911,000	530,9529169	Censurado					0	62,6932	4,073937366
25	-20	1368,6		281.931,600	530,9723157	Censurado					0	62,6932	4,073937366
25	-20	1371,1		282.446,600	531,4570538	Censurado					0	62,6932	4,073937366
25	-20	1381,3		284.547,800	533,4302204	Censurado					0	62,6932	4,073937366
25	-20	1391		286.546,000	535,2999159	Censurado					0	62,6932	4,073937366
25	-20	1408,2		290.089,200	538,5992945	Censurado					0	62,6932	4,073937366
25	-20	1436,3		295.877,800	543,9465047	Censurado					0	62,6932	4,073937366
25	-20	1459,7		300.698,200	548,3595536	Censurado					0	62,6932	4,073937366
25	-20	1472,5		303.335,000	550,7585678	Censurado					0	62,6932	4,073937366
25	-20	1473,7		303.582,200	550,9829398	Censurado					0	62,6932	4,073937366
25	-20	1480,1		304.900,600	552,178051	Censurado					0	62,6932	4,073937366
25	-20	1496,6		308.299,600	555,2473323	Censurado					0	62,6932	4,073937366
25	-20	1497,2		308.423,200	555,3586229	Censurado					0	62,6932	4,073937366
25	-20	1499		308.794,000	555,6923609	Censurado					0	62,6932	4,073937366
25	-20	1524,5		314.047,000	560,398965	Censurado					0	62,6932	4,073937366
25	-20	1547,8		318.846,800	564,6652105	Censurado					0	62,6932	4,073937366
25	-20	1553,3		319.979,800	565,6675702	Censurado					0	62,6932	4,073937366
25	-20	1554,5		320.227,000	565,8860309	Censurado					0	62,6932	4,073937366
25	-20	1560,5		321.463,000	566,9770718	Censurado					0	62,6932	4,073937366
25	-20	1575		324.450,000	569,6051264	Censurado					0	62,6932	4,073937366
50	-20	139		28.634,000	169,2158385	Válido	149,21584	1,189207	177,4485368	197,4485368	991493087,2	62,6932	15815002,06
50	-20	162		33.372,000	182,6800482	Válido	162,68005	1,189207	193,4602708	213,4602708	1400771074	62,6932	22343269,67
50	-20	168,1		34.628,600	186,0876138	Válido	166,08761	1,189207	197,512572	217,512572	1521874982	62,6932	24274960,95
50	-20	180,6		37.203,600	192,8823476	Válido	172,88235	1,189207	205,5929178	225,5929178	1786621683	62,6932	28497854,36
50	-20	195,2		40.211,200	200,5273049	Válido	180,5273	1,189207	214,6843554	234,6843554	2124230253	62,6932	33882945,1
50	-20	256		52.736,000	229,6432015	Válido	209,6432	1,189207	249,3091868	269,3091868	3863252807	62,6932	61621560,35
50	-20	259		53.354,000	230,984848	Válido	210,98485	1,189207	250,9046824	270,9046824	3963100309	62,6932	63214197,22
50	-20	291		59.946,000	244,8387224	Válido	224,83872	1,189207	267,3798084	287,3798084	5111100625	62,6932	81525598,07
50	-20	326,5		67.259,000	259,3434017	Válido	239,3434	1,189207	284,6288762	304,6288762	6563202928	62,6932	104687636,4
50	-20	328,8		67.732,800	260,2552593	Válido	240,25526	1,189207	285,7132638	305,7132638	6663794707	62,6932	106292145

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
50	-20	330		67.980,000	260,7297451	Válido	240,72975	1,189207	286,2775257	306,2775257	6716592804	62,6932	107134311,3
50	-20	362,3		74.633,800	273,191874	Válido	253,19187	1,189207	301,097578	321,097578	8219190536	62,6932	5,761418304
50	-20	380		78.280,000	279,7856322	Válido	259,78563	1,189207	308,9389222	328,9389222	9109415433	62,6932	5,761418304
50	-20	392		80.752,000	284,1689638	Válido	264,16896	1,189207	314,1516113	334,1516113	9739959848	62,6932	5,761418304
50	-20	417		85.902,000	293,0904297	Válido	273,09043	1,189207	324,7610821	344,7610821	11123870365	62,6932	5,761418304
50	-20	447		92.082,000	303,4501607	Válido	283,45016	1,189207	337,0809478	357,0809478	12910314607	62,6932	5,761418304
50	-20	480		98.880,000	314,4519041	Censurado	294,4519	1,189207	350,1642994	370,1642994	0	62,6932	5,761418304
50	-20	486,8		100.280,800	316,6714386	Censurado	296,67144	1,189207	352,8037856	372,8037856	0	62,6932	5,761418304
50	-20	502		103.412,000	321,5773624	Censurado	301,57736	1,189207	358,6379451	378,6379451	0	62,6932	5,761418304
50	-20	512		105.472,000	324,7645301	Censurado	304,76453	1,189207	362,4281476	382,4281476	0	62,6932	5,761418304
50	-20	555		114.330,000	338,127195	Censurado	318,1272	1,189207	378,3191238	398,3191238	0	62,6932	5,761418304
50	-20	648,8		133.652,800	365,5855577	Censurado	345,58556	1,189207	410,9728041	430,9728041	0	62,6932	5,761418304
50	-20	655,6		135.053,600	367,4963945	Censurado	347,49639	1,189207	413,2451848	433,2451848	0	62,6932	5,761418304
50	-20	695		143.170,000	378,3781178	Censurado	358,37812	1,189207	426,1858075	446,1858075	0	62,6932	5,761418304
50	-20	807		166.242,000	407,7278504	Censurado	387,72785	1,189207	461,0887184	481,0887184	0	62,6932	5,761418304
50	-20	820		168.920,000	410,9987835	Censurado	390,99878	1,189207	464,9785352	484,9785352	0	62,6932	5,761418304
50	-20	1017		209.502,000	457,7138844	Censurado	437,71388	1,189207	520,5324657	540,5324657	0	62,6932	5,761418304
50	-20	1266		260.796,000	510,6818971	Censurado	490,6819	1,189207	583,5224032	603,5224032	0	62,6932	5,761418304
50	-20	1582		325.892,000	570,8695122	Censurado	550,86951	1,189207	655,0979434	675,0979434	0	62,6932	5,761418304
50	-20	1619		333.514,000	577,5067099	Censurado	557,50671	1,189207	662,9909461	682,9909461	0	62,6932	5,761418304
100	-20	58,6		12.071,600	109,8708333	Válido	89,870833	1,414214	127,0965513	147,0965513	260936639,4	62,6932	4162120,283
100	-20	74,4		15.326,400	123,7998384	Válido	103,79984	1,414214	146,7951393	166,7951393	464351338,4	62,6932	7406725,744
100	-20	82,8		17.056,800	130,6016845	Válido	110,60168	1,414214	156,4144023	176,4144023	598558989,3	62,6932	9547430,811
100	-20	100,6		20.723,600	143,956938	Válido	123,95694	1,414214	175,3015829	195,3015829	944372539,6	62,6932	15063396,66
100	-20	112,2		23.113,200	152,0302601	Válido	132,03026	1,414214	186,7189845	206,7189845	1215497045	62,6932	19388020,47
100	-20	123,7		25.482,200	159,6314505	Válido	139,63145	1,414214	197,4686911	217,4686911	1520522986	62,6932	24253395,68
100	-20	130,8		26.944,800	164,1487131	Válido	144,14871	1,414214	203,857065	223,857065	1727042675	62,6932	27547527,88
100	-20	133,4		27.480,400	165,7721328	Válido	145,77213	1,414214	206,1529272	226,1529272	1806167498	62,6932	28809623,66
100	-20	186,1		38.336,600	195,7973442	Válido	175,79734	1,414214	248,6149884	268,6149884	3820403469	62,6932	60938083,7
100	-20	188,4		38.810,400	197,0035533	Válido	177,00355	1,414214	250,3208256	270,3208256	3926340233	62,6932	62627848,52
100	-20	191,7		39.490,200	198,721413	Válido	178,72141	1,414214	252,7502462	272,7502462	4080997693	62,6932	65094742,22
100	-20	193		39.758,000	199,3940822	Válido	179,39408	1,414214	253,701544	273,701544	4142785440	62,6932	66080299,61
100	-20	212,3		43.733,800	209,1262776	Válido	189,12628	1,414214	267,4649468	287,4649468	5117613590	62,6932	81629484,38
100	-20	212,5		43.775,000	209,2247595	Válido	189,22476	1,414214	267,6042213	287,6042213	5128281299	62,6932	81799641,74
100	-20	223		45.938,000	214,3315189	Válido	194,33152	1,414214	274,8262696	294,8262696	5704702120	62,6932	90993953,42
100	-20	224,4		46.226,400	215,0032558	Válido	195,00326	1,414214	275,776249	295,776249	5783988770	62,6932	92258630,44
100	-20	231,2		47.627,200	218,2365689	Válido	198,23657	1,414214	280,3488443	300,3488443	6177248610	62,6932	98531397,51
100	-20	247,3		50.943,800	225,7073326	Válido	205,70733	1,414214	290,9140997	310,9140997	7162408427	62,6932	114245379,5
100	-20	288,5		59.431,000	243,7847411	Válido	223,78474	1,414214	316,4794159	336,4794159	10031869493	62,6932	160015272,7
100	-20	299,8		61.758,800	248,5131787	Válido	228,51318	1,414214	323,1664365	343,1664365	10906992078	62,6932	173974084,6
100	-20	301,3		62.067,800	249,1341004	Válido	229,1341	1,414214	324,0445524	344,0445524	11026023136	62,6932	175872712,5
100	-20	315,9		65.075,400	255,0988044	Válido	235,0988	1,414214	332,4799177	352,4799177	12219731778	62,6932	194913192,8
100	-20	318,2		65.549,200	256,02578	Válido	236,02578	1,414214	333,7908591	353,7908591	12413600285	62,6932	198005529,9
100	-20	324,6		66.867,600	258,5877027	Válido	238,5877	1,414214	337,413965	357,413965	12961408950	62,6932	206743457,8

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
25	-91	19,9	0,020	4.099,400	64,03	Válido					3757153,118	109,6932	34251,4679
25	-91	21,3	0,021	4.387,800	66,24	Válido					4571818,671	109,6932	41678,2323
25	-91	23,1	0,023	4.758,600	68,98	Válido					5756620,047	109,6932	52479,279
25	-91	23,7	0,024	4.882,200	69,87	Válido					6186613,242	109,6932	56399,24118
25	-91	29,1	0,291	5.994,600	77,42	Válido					10874217,93	109,6932	99133,01767
25	-91	29,4	0,029	6.056,400	77,82	Válido					11178891,73	109,6932	101910,5262
25	-91	38,6	0,039	7.951,600	89,17	Válido					22893643,32	109,6932	208706,1305
25	-91	39,7	0,040	8.178,200	90,43	Válido					24610171,27	109,6932	224354,575
25	-91	42,3	0,042	8.713,800	93,35	Válido					28943222,01	109,6932	263856,1188
25	-91	46,3	0,046	9.537,800	97,66	Válido					36376984,58	109,6932	331624,7915
25	-91	47,3	0,473	9.743,800	98,71	Válido					38382639,98	109,6932	349909,0188
25	-91	48,9	0,489	10.073,400	100,37	Válido					41715410,74	109,6932	380291,6747
25	-91	51,4	0,514	10.588,400	102,90	Válido					47229908,47	109,6932	430563,6856
25	-91	52	0,052	10.712,000	103,50	Válido					48609457,63	109,6932	443140,1183
25	-91	55,9	0,056	11.515,400	107,31	Válido					58110231,58	109,6932	529752,36
25	-91	56,6	0,566	11.659,600	107,98	Válido					59914022,7	109,6932	546196,3248
25	-91	59,4	0,594	12.236,400	110,62	Válido					67431515,97	109,6932	614728,3147
25	-91	63,3	0,063	13.039,800	114,19	Válido					78714553,27	109,6932	717588,2668
25	-91	68,5	0,069	14.111,000	118,79	Válido					95246099,01	109,6932	868295,3821
25	-91	70,2	0,070	14.461,200	120,25	Válido					101022818,4	109,6932	920957,8934
25	-91	70,6	0,071	14.543,600	120,60	Válido					102408855,1	109,6932	933593,4688
25	-91	71,4	0,071	14.708,400	121,28	Válido					105211635	109,6932	959144,55
25	-91	76	0,076	15.656,000	125,12	Válido					122125539,4	109,6932	1113337,376
25	-91	76,5	0,077	15.759,000	125,53	Válido					124046262,3	109,6932	1130847,33
25	-91	76,6	0,766	15.779,600	125,62	Válido					124432349,2	109,6932	1134367,027
25	-91	76,8	0,077	15.820,800	125,78	Válido					125206466,4	109,6932	1141424,139
25	-91	77	0,077	15.862,000	125,94	Válido					125983175,5	109,6932	1148504,88
25	-91	77,2	0,077	15.903,200	126,11	Válido					126762477,6	109,6932	1155609,26
25	-91	93,9	0,939	19.343,400	139,08	Válido					201077445,6	109,6932	1833089,431
25	-91	112,8	0,113	23.236,800	152,44	Válido					307628845,9	109,6932	2804447,731
25	-91	124,3	0,124	25.605,800	160,02	Válido					384358967,4	109,6932	3503945,252
50	-91	14,9	0,149	3.069,400	55,40	Válido	35,40	1,189207	42,10	62,10	3141588,752	109,6932	28639,77669
50	-91	18,3	0,183	3.769,800	61,40	Válido	41,40	1,189207	49,23	69,23	5874578,163	109,6932	53554,62475
50	-91	18,8	0,188	3.872,800	62,23	Válido	42,23	1,189207	50,22	70,22	6361937,218	109,6932	57997,55334
50	-91	20,2	0,202	4.161,200	64,51	Válido	44,51	1,189207	52,93	72,93	7847972,75	109,6932	71544,75163
50	-91	22,4	0,224	4.614,400	67,93	Válido	47,93	1,189207	57,00	77,00	10554485,37	109,6932	96218,22837
50	-91	24,6	0,246	5.067,600	71,19	Válido	51,19	1,189207	60,87	80,87	13730025,15	109,6932	125167,514
50	-91	27,7	0,277	5.706,200	75,54	Válido	55,54	1,189207	66,05	86,05	19029813,55	109,6932	173482,1626
50	-91	30,2	0,302	6.221,200	78,87	Válido	58,87	1,189207	70,01	90,01	24029315,59	109,6932	219059,2999
50	-91	30,4	0,304	6.262,400	79,14	Válido	59,14	1,189207	70,32	90,32	24457834,96	109,6932	222965,8262
50	-91	30,6	0,306	6.303,600	79,40	Válido	59,40	1,189207	70,63	90,63	24890624,91	109,6932	226911,2845
50	-91	31,7	0,317	6.530,200	80,81	Válido	60,81	1,189207	72,32	92,32	27347655,05	109,6932	249310,3952
50	-91	34,3	0,343	7.065,800	84,06	Válido	64,06	1,189207	76,18	96,18	33676890,66	109,6932	307009,8298
50	-91	41,5	0,415	8.549,000	92,46	Válido	72,46	1,189207	86,17	106,17	55136926,54	109,6932	502646,7141

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
50	-91	41,6	0,416	8.569,600	92,57	Válido	72,57	1,189207	86,30	106,30	55476566,17	109,6932	505742,9829
50	-91	45,3	0,453	9.331,800	96,60	Válido	76,60	1,189207	91,09	111,09	68860987,42	109,6932	627759,8559
50	-91	46,1	0,461	9.496,600	97,45	Válido	77,45	1,189207	92,10	112,10	71965923,79	109,6932	656065,4971
50	-91	46,5	0,465	9.579,000	97,87	Válido	77,87	1,189207	92,61	112,61	73546747,77	109,6932	670476,8187
50	-91	47,3	0,473	9.743,800	98,71	Válido	78,71	1,189207	93,60	113,60	76765279,96	109,6932	699818,0376
50	-91	48,7	0,487	10.032,200	100,16	Válido	80,16	1,189207	95,33	115,33	82580916,19	109,6932	752835,3279
50	-91	52,7	0,527	10.856,200	104,19	Válido	84,19	1,189207	100,12	120,12	100492995,4	109,6932	916127,849
50	-91	54,6	0,546	11.247,600	106,05	Válido	86,05	1,189207	102,34	122,34	109680250,4	109,6932	999881,947
50	-91	55,6	0,556	11.453,600	107,02	Válido	87,02	1,189207	103,49	123,49	114692790,5	109,6932	1045577,944
50	-91	57,4	0,574	11.824,400	108,74	Válido	88,74	1,189207	105,53	125,53	124024878,2	109,6932	1130652,385
50	-91	58,7	0,587	12.092,200	109,96	Válido	89,96	1,189207	106,99	126,99	131013317,9	109,6932	1194361,346
50	-91	59,1	0,591	12.174,600	110,34	Válido	90,34	1,189207	107,43	127,43	133205709,4	109,6932	1214347,921
50	-91	67	0,670	13.802,000	117,48	Válido	97,48	1,189207	115,93	135,93	180603506,3	109,6932	1646442,134
50	-91	75,7	0,757	15.594,200	124,88	Válido	104,88	1,189207	124,72	144,72	241961740,5	109,6932	2205804,375
50	-91	76,2	0,762	15.697,200	125,29	Válido	105,29	1,189207	125,21	145,21	245783773,5	109,6932	2240647,31
50	-91	78,6	0,786	16.191,600	127,25	Válido	107,25	1,189207	127,54	147,54	264580565	109,6932	2412005,165
50	-91	81	0,810	16.686,000	129,17	Válido	109,17	1,189207	129,83	149,83	284126455,3	109,6932	2590192,057
50	-91	86	0,860	17.716,000	133,10	Válido	113,10	1,189207	134,50	154,50	327267529,4	109,6932	2983480,557
50	-91	86,5	0,865	17.819,000	133,49	Válido	113,49	1,189207	134,96	154,96	331762366,3	109,6932	3024456,997
50	-91	100,5	1,005	20.703,000	143,89	Válido	123,89	1,189207	147,33	167,33	471096740,4	109,6932	4294675,881
50	-91	117,8	1,178	24.266,800	155,78	Válido	135,78	1,189207	161,47	181,47	679748454,8	109,6932	6196814,887
100	-91	19,6	0,196	4.037,600	63,54	Válido	43,54	1,414214	61,58	81,58	14377982,62	109,6932	131074,5117
100	-91	19,7	0,197	4.058,200	63,70	Válido	43,70	1,414214	61,81	81,81	14593009,36	109,6932	133034,7676
100	-91	21,6	0,216	4.449,600	66,71	Válido	46,71	1,414214	66,05	86,05	19033798,98	109,6932	173518,495
100	-91	23,3	0,233	4.799,800	69,28	Válido	49,28	1,414214	69,69	89,69	23591934,17	109,6932	215071,9841
100	-91	25,4	0,254	5.232,400	72,34	Válido	52,34	1,414214	74,01	94,01	30008194,56	109,6932	273564,7657
100	-91	25,9	0,259	5.335,400	73,04	Válido	53,04	1,414214	75,02	95,02	31666440,05	109,6932	288681,8877
100	-91	27,7	0,277	5.706,200	75,54	Válido	55,54	1,414214	78,54	98,54	38059627,11	109,6932	346964,3251
100	-91	29,5	0,295	6.077,000	77,96	Válido	57,96	1,414214	81,96	101,96	45126025,84	109,6932	411383,9859
100	-91	32	0,320	6.592,000	81,19	Válido	61,19	1,414214	86,54	106,54	56080768,45	109,6932	511251,0935
100	-91	32,1	0,321	6.612,600	81,32	Válido	61,32	1,414214	86,72	106,72	56546917,14	109,6932	515500,6613
100	-91	32,9	0,329	6.777,400	82,32	Válido	62,32	1,414214	88,14	108,14	60354295,91	109,6932	550210,003
100	-91	33	0,330	6.798,000	82,45	Válido	62,45	1,414214	88,32	108,32	60840018,92	109,6932	554638,0169
100	-91	33,4	0,334	6.880,400	82,95	Válido	62,95	1,414214	89,02	109,02	62804767,08	109,6932	572549,3201
100	-91	35,8	0,358	7.374,800	85,88	Válido	65,88	1,414214	93,16	113,16	75333156,8	109,6932	686762,3226
100	-91	35,9	0,359	7.395,400	86,00	Válido	66,00	1,414214	93,33	113,33	75882898,66	109,6932	691773,9537
100	-91	37,6	0,376	7.745,600	88,01	Válido	68,01	1,414214	96,18	116,18	85571246,37	109,6932	780096,1807
100	-91	39,6	0,396	8.157,600	90,32	Válido	70,32	1,414214	99,45	119,45	97805085,15	109,6932	891623,958
100	-91	40,1	0,401	8.260,600	90,89	Válido	70,89	1,414214	100,25	120,25	101005968,5	109,6932	920804,2844
100	-91	40,6	0,406	8.363,600	91,45	Válido	71,45	1,414214	101,05	121,05	104264161,5	109,6932	950507,0645
100	-91	41,1	0,411	8.466,600	92,01	Válido	72,01	1,414214	101,84	121,84	107579828,9	109,6932	980733,8
100	-91	41,3	0,413	8.507,800	92,24	Válido	72,24	1,414214	102,16	122,16	108922225	109,6932	992971,5329
100	-91	41,3	0,413	8.507,800	92,24	Válido	72,24	1,414214	102,16	122,16	108922225	109,6932	992971,5329
100	-91	42,3	0,423	8.713,800	93,35	Válido	73,35	1,414214	103,73	123,73	115772888,1	109,6932	1055424,475

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068	
100	-91	42,7	0,427	8.796,200	93,79	Válido	73,79	1,414214	104,35	124,35	118578058,5	109,6932	1080997,35	
100	-91	45,6	0,456	9.393,600	96,92	Válido	76,92	1,414214	108,78	128,78	140032979,4	109,6932	1276587,604	
100	-91	46,6	0,466	9.599,600	97,98	Válido	77,98	1,414214	110,28	130,28	147889826,7	109,6932	1348213,26	
100	-91	47,6	0,476	9.805,600	99,02	Válido	79,02	1,414214	111,76	131,76	155983654,4	109,6932	1421999,307	
100	-91	49,2	0,492	10.135,200	100,67	Válido	80,67	1,414214	114,09	134,09	169429313	109,6932	1544574,44	
100	-91	53,7	0,537	11.062,200	105,18	Válido	85,18	1,414214	120,46	140,46	210547079,5	109,6932	1919417,79	
100	-91	126,4	1,264	26.038,400	161,36	Válido	141,36	1,414214	199,92	219,92	1597414266	109,6932	14562564,18	
200	-91	13,8	0,138	2.842,800	53,32	Válido	33,32	1,681793	56,03	76,03	9858281,639	109,6932	89871,40168	
200	-91	20,4	0,204	4.202,400	64,83	Válido	44,83	1,681793	75,39	95,39	32300322,8	109,6932	294460,5755	
200	-91	23	0,230	4.738,000	68,83	Válido	48,83	1,681793	82,13	102,13	45493388,84	109,6932	414732,9902	
200	-91	23,2	0,232	4.779,200	69,13	Válido	49,13	1,681793	82,63	102,63	46616451,6	109,6932	424971,207	
200	-91	25,4	0,254	5.232,400	72,34	Válido	52,34	1,681793	88,02	108,02	60016389,12	109,6932	547129,5314	
200	-91	25,6	0,256	5.273,600	72,62	Válido	52,62	1,681793	88,50	108,50	61330813,25	109,6932	559112,2627	
200	-91	25,8	0,258	5.314,800	72,90	Válido	52,90	1,681793	88,97	108,97	62661460,34	109,6932	571242,8878	
200	-91	30,2	0,302	6.221,200	78,87	Válido	58,87	1,681793	99,01	119,01	96117262,38	109,6932	876237,1996	
200	-91	33,9	0,339	6.983,400	83,57	Válido	63,57	1,681793	106,91	126,91	130620017,9	109,6932	1190775,89	
200	-91	36,9	0,369	7.601,400	87,19	Válido	67,19	1,681793	112,99	132,99	163006655,8	109,6932	1486023,343	
200	-91	38,8	0,388	7.992,800	89,40	Válido	69,40	1,681793	116,72	136,72	185604911,9	109,6932	1692036,625	
200	-91	40,9	0,409	8.425,400	91,79	Válido	71,79	1,681793	120,74	140,74	212493309,2	109,6932	1937160,272	
200	-91	44,6	0,446	9.187,600	95,85	Válido	75,85	1,681793	127,57	147,57	264824052,5	109,6932	2414224,879	
200	-91	44,8	0,448	9.228,800	96,07	Válido	76,07	1,681793	127,93	147,93	267834797,3	109,6932	2441671,838	
200	-91	50,7	0,507	10.444,200	102,20	Válido	82,20	1,681793	138,24	158,24	365183446,7	109,6932	3329134,775	
Total de Válidos						110								
						0								
											<i>Soma dos K0</i>		119461054,6	
											<i>Somatoria</i> ^{1/4}		104,545799	
											anterior +20		124,545799	
											Kjc Médio		115,387587	
											KjcMedio - 30		85,38758701	
											-70		1,219822672	
											Ln		0,198705497	
											T - T0		10,45787031	
Mt														
25	-60	34	34.000,000	7.004,000	83,68990381	Válido					16454412,17	120,6932	136332,5537	
25	-60	40,2	40.200,000	8.281,200	91,00109889	Válido					25413254,26	120,6932	210560,7794	
25	-60	46,9	46.900,000	9.661,400	98,29242087	Válido					37573260,89	120,6932	311312,1609	
25	-60	52	52.000,000	10.712,000	103,4987923	Válido					48609457,63	120,6932	402752,2481	
25	-60	54,2	54.200,000	11.165,200	105,66551	Válido					53854750,56	120,6932	446211,9701	
25	-60	56,1	56.100,000	11.556,600	107,5016279	Válido					58622526,43	120,6932	485715,2386	
25	-60	62,3	62.300,000	12.833,800	113,2863628	Válido					75730816,98	120,6932	627465,4826	
25	-60	67,4	67.400,000	13.884,400	117,8320839	Válido					91606273,8	120,6932	759001,1185	
25	-60	68	68.000,000	14.008,000	118,355397	Válido					93582099,2	120,6932	775371,7624	
25	-60	69	69.000,000	14.214,000	119,2224811	Válido					96926008,89	120,6932	803077,629	
25	-60	74,6	74.600,000	15.367,600	123,9661244	Válido					116833508,7	120,6932	968020,64	
25	-60	78,2	78.200,000	16.109,200	126,9220233	Válido					130697919,3	120,6932	1082893,811	
25	-60	81,3	81.300,000	16.747,800	129,4132914	Válido					143311265,7	120,6932	1187401,326	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
25	-60	81,4	81.400,000	16.768,400	129,4928569	Válido					143728585,3	120,6932	1190859,016
25	-60	82,3	82.300,000	16.953,800	130,2067587	Válido					147513890,6	120,6932	1222222,052
25	-60	90	90.000,000	18.540,000	136,1616686	Válido					182075439,7	120,6932	1508580,763
25	-60	90,4	90.400,000	18.622,400	136,4639146	Válido					183977848,2	120,6932	1524343,113
25	-60	100,3	100.300,000	20.661,800	143,7421302	Válido					234460859,4	120,6932	1942618,635
25	-60	112,2	112.200,000	23.113,200	152,0302601	Válido					303874261,2	120,6932	2517741,358
25	-60	120,3	120.300,000	24.781,800	157,4223618	Válido					356639656,8	120,6932	2954927,509
25	-60	123,4	123.400,000	25.420,400	159,4377622	Válido					378025952,7	120,6932	3132123,041
25	-60	127,4	127.400,000	26.244,400	162,0012346	Válido					406601035,8	120,6932	3368881,062
25	-60	129	129.000,000	26.574,000	163,0153367	Válido					418341020,6	120,6932	3466152,365
25	-60	140,9	140.900,000	29.025,400	170,3684243	Válido					511242082,6	120,6932	4235881,413
25	-60	141,9	141.900,000	29.231,400	170,9719275	Válido					519499100,1	120,6932	4304294,692
25	-60	142,5	142.500,000	29.355,000	171,3330091	Válido					524486930,2	120,6932	4345621,213
25	-60	143,1	143.100,000	29.478,600	171,6933313	Válido					529499988,6	120,6932	4387156,762
25	-60	191,8	191.800,000	39.510,800	198,7732376	Válido					1021433322	120,6932	8463056,096
25	-60	193,2	193.200,000	39.799,200	199,4973684	Válido					1038083632	120,6932	8601011,753
25	-60	261	261.000,000	53.766,000	231,8749663	Censurado					0	120,6932	1,89152057
25	-60	284,9	284.900,000	58.689,400	242,2589524	Censurado					0	120,6932	1,89152057
50	-60	46,7	46.700,000	9.620,200	98,08261824	Válido	78,082618	1,189207	92,85640516	112,8564052	74344263,88	120,6932	615977,2372
50	-60	48	48.000,000	9.888,000	99,43842316	Válido	79,438423	1,189207	94,46873802	114,468738	79643888,41	120,6932	659887,1221
50	-60	49,9	49.900,000	10.279,400	101,3873759	Válido	81,387376	1,189207	96,78644654	116,7864465	87752233,9	120,6932	727068,583
50	-60	52,9	52.900,000	10.897,400	104,3906126	Válido	84,390613	1,189207	100,3579169	120,3579169	101439372,4	120,6932	840472,9713
50	-60	59,4	59.400,000	12.236,400	110,6182625	Válido	90,618263	1,189207	107,7638825	127,7638825	134863031,9	120,6932	1117403,731
50	-60	63,1	63.100,000	12.998,600	114,0114029	Válido	94,011403	1,189207	111,7990293	131,7990293	156225574,6	120,6932	1294402,457
50	-60	68,1	68.100,000	14.028,600	118,4423911	Válido	98,442391	1,189207	117,0683919	137,0683919	187827254,5	120,6932	1556237,257
50	-60	68,2	68.200,000	14.049,200	118,5293213	Válido	98,529321	1,189207	117,1717699	137,1717699	188491582,3	120,6932	1561741,525
50	-60	69,2	69.200,000	14.255,200	119,3951423	Válido	99,395142	1,189207	118,2014104	138,2014104	195204863,8	120,6932	1617364,224
50	-60	75,1	75.100,000	15.470,600	124,3808667	Válido	104,38087	1,189207	124,1304693	144,1304693	237417971,4	120,6932	1967119,701
50	-60	76,2	76.200,000	15.697,200	125,2884671	Válido	105,28847	1,189207	125,2097943	145,2097943	245783773,5	120,6932	2036434,311
50	-60	76,5	76.500,000	15.759,000	125,5348557	Válido	105,53486	1,189207	125,5028013	145,5028013	248092524,6	120,6932	2055563,401
50	-60	80,6	80.600,000	16.603,600	128,8549572	Válido	108,85496	1,189207	129,4510896	149,4510896	280816641,8	120,6932	2326698,122
50	-60	81,9	81.900,000	16.871,400	129,8899534	Válido	109,88995	1,189207	130,6819145	150,6819145	291649981,3	120,6932	2416457,441
50	-60	82,9	82.900,000	17.077,400	130,6805265	Válido	110,68053	1,189207	131,6220696	151,6220696	300133768,2	120,6932	2486749,611
50	-60	86,1	86.100,000	17.736,600	133,1788271	Válido	113,17883	1,189207	134,5930665	154,5930665	328163860,5	120,6932	2718992,126
50	-60	86,2	86.200,000	17.757,200	133,2561443	Válido	113,25614	1,189207	134,6850126	154,6850126	329061509,5	120,6932	2726429,571
50	-60	94,4	94.400,000	19.446,400	139,4503496	Válido	119,45035	1,189207	142,0512056	162,0512056	407173679	120,6932	3373625,681
50	-60	95,1	95.100,000	19.590,600	139,9664245	Válido	119,96642	1,189207	142,6649256	162,6649256	414256047,7	120,6932	3432306,44
50	-60	96,8	96.800,000	19.940,800	141,2118975	Válido	121,2119	1,189207	144,1460509	164,1460509	431728774,9	120,6932	3577076,214
50	-60	97	97.000,000	19.982,000	141,3577023	Válido	121,3577	1,189207	144,319443	164,319443	433809817,9	120,6932	3594318,635
50	-60	98,6	98.600,000	20.311,600	142,5187707	Válido	122,51877	1,189207	145,7001938	165,7001938	450651185,7	120,6932	3733857,299
50	-60	109,7	109.700,000	22.598,200	150,326977	Válido	130,32698	1,189207	154,9857683	174,9857683	576988665,5	120,6932	4780622,814
50	-60	112,9	112.900,000	23.257,400	152,5037704	Válido	132,50377	1,189207	157,5744266	177,5744266	616513997,7	120,6932	5108108,806
50	-60	127,4	127.400,000	26.244,400	162,0012346	Válido	142,00123	1,189207	168,8688785	188,8688785	813202071,6	120,6932	6737762,125
50	-60	129,1	129.100,000	26.594,600	163,0785087	Válido	143,07851	1,189207	170,1499806	190,1499806	838161320,6	120,6932	6944561,256

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
50	-60	129,9	129.900,000	26.759,400	163,5830065	Válido	143,58301	1,189207	170,7499329	190,7499329	850045487,8	120,6932	7043027,178
50	-60	142,3	142.300,000	29.313,800	171,2127332	Válido	151,21273	1,189207	179,8232582	199,8232582	1045643035	120,6932	8663644,97
50	-60	147,4	147.400,000	30.364,400	174,2538378	Válido	154,25384	1,189207	183,4397615	203,4397615	1132332332	120,6932	9381906,617
50	-60	147,8	147.800,000	30.446,800	174,4901143	Válido	154,49011	1,189207	183,7207432	203,7207432	1139286035	120,6932	9439521,324
50	-60	163,2	163.200,000	33.619,200	183,3553926	Válido	163,35539	1,189207	194,2633952	214,2633952	1424176774	120,6932	11799975,26
50	-60	164,7	164.700,000	33.928,200	184,1960912	Válido	164,19609	1,189207	195,2631599	215,2631599	1453721629	120,6932	12044768,3
50	-60	176,8	176.800,000	36.420,800	190,8423433	Válido	170,84234	1,189207	203,1669302	223,1669302	1703774345	120,6932	14116572,8
50	-60	198	198.000,000	40.788,000	201,9603922	Válido	181,96039	1,189207	216,388593	236,388593	2192489147	120,6932	18165805,09
100	-60	30,4	30.400,000	6.262,400	79,13532713	Válido	59,135327	1,414214	83,62998164	103,6299816	48915669,93	120,6932	405289,3612
100	-60	57,5	57.500,000	11.845,000	108,8347371	Válido	88,834737	1,414214	125,63129	145,63129	249110066,1	120,6932	2063994,211
100	-60	63,3	63.300,000	13.039,800	114,1919437	Válido	94,191944	1,414214	133,2075242	153,2075242	314858213,1	120,6932	2608748,572
100	-60	64	64.000,000	13.184,000	114,8216008	Válido	94,821601	1,414214	134,0979938	154,0979938	323362104,1	120,6932	2679207,313
100	-60	68,5	68.500,000	14.111,000	118,7897302	Válido	98,78973	1,414214	139,7097763	159,7097763	380984396	120,6932	3156635,138
100	-60	82,8	82.800,000	17.056,800	130,6016845	Válido	110,60168	1,414214	156,4144023	176,4144023	598558989,3	120,6932	4959343,106
100	-60	86,1	86.100,000	17.736,600	133,1788271	Válido	113,17883	1,414214	160,0590323	180,0590323	656327721	120,6932	5437984,253
100	-60	88,3	88.300,000	18.189,800	134,8695666	Válido	114,86957	1,414214	162,450099	182,450099	696433929,9	120,6932	5770283,081
100	-60	89,4	89.400,000	18.416,400	135,7070374	Válido	115,70704	1,414214	163,6344616	183,6344616	716966868,3	120,6932	5940408,145
100	-60	94,5	94.500,000	19.467,000	139,5241915	Válido	119,52419	1,414214	169,0327326	189,0327326	816362880,3	120,6932	6763950,913
100	-60	102,2	102.200,000	21.053,200	145,0972088	Válido	125,09721	1,414214	176,9141693	196,9141693	979603820,3	120,6932	8116478,975
100	-60	106,3	106.300,000	21.897,800	147,9790526	Válido	127,97905	1,414214	180,9897118	200,9897118	1073039117	120,6932	8890634,414
100	-60	107,7	107.700,000	22.186,200	148,9503273	Válido	128,95033	1,414214	182,3633017	202,3633017	1105986399	120,6932	9163618,161
100	-60	112,3	112.300,000	23.133,800	152,0979947	Válido	132,09799	1,414214	186,8147757	206,8147757	1217993278	120,6932	10091647,89
100	-60	113	113.000,000	23.278,000	152,5712948	Válido	132,57129	1,414214	187,4841231	207,4841231	1235543338	120,6932	10237058,41
100	-60	115,5	115.500,000	23.793,000	154,2497974	Válido	134,2498	1,414214	189,8578842	209,8578842	1299315284	120,6932	10765439,02
100	-60	128,1	128.100,000	26.388,600	162,4456832	Válido	142,44568	1,414214	201,4486171	221,4486171	1646861822	120,6932	13645025,75
100	-60	131,1	131.100,000	27.006,600	164,3368492	Válido	144,33685	1,414214	204,1231297	224,1231297	1736076561	120,6932	14384211,88
100	-60	132,7	132.700,000	27.336,200	165,3366263	Válido	145,33663	1,414214	205,537028	225,537028	1784679727	120,6932	14786911,99
100	-60	150,2	150.200,000	30.941,200	175,9011086	Válido	155,90111	1,414214	220,4774621	240,4774621	2362962366	120,6932	19578255,99
100	-60	153,5	153.500,000	31.621,000	177,8229457	Válido	157,82295	1,414214	223,1953502	243,1953502	2481650230	120,6932	20561640,84
100	-60	160,8	160.800,000	33.124,800	182,0021978	Válido	162,0022	1,414214	229,1057052	249,1057052	2755139650	120,6932	22827629,48
100	-60	168,9	168.900,000	34.793,400	186,5298904	Válido	166,52989	1,414214	235,5088295	255,5088295	3076300640	120,6932	25488599,53
100	-60	191,9	191.900,000	39.531,400	198,8250487	Válido	178,82505	1,414214	252,8968092	272,8968092	4090471768	120,6932	33891484,92
100	-60	225,7	225.700,000	46.494,200	215,6251377	Válido	195,62514	1,414214	276,6557228	296,6557228	5858124988	120,6932	48537324,29
100	-60	230	230.000,000	47.380,000	217,6694742	Válido	197,66947	1,414214	279,5468513	299,5468513	6106866407	120,6932	50598264,09
100	-60	241,9	241.900,000	49.831,400	223,2294783	Válido	203,22948	1,414214	287,4098845	307,4098845	6823493794	120,6932	56535859,47
100	-60	265,4	265.400,000	54.672,400	233,8212993	Válido	213,8213	1,414214	302,3889814	322,3889814	8361108288	120,6932	69275719,66
100	-60	282,6	282.600,000	58.215,600	241,2790915	Válido	221,27909	1,414214	312,9358923	332,9358923	9590064104	120,6932	79458197,35
100	-60	415,3	415.300,000	85.551,800	292,4923931	Válido	272,49239	1,414214	385,3624379	405,3624379	22053499959	120,6932	182723632,8
25	-60	38,4	38.400,000	7.910,400	88,9404295	Válido					22588944,53	117,6932	191930,7533
25	-60	46,1	46.100,000	9.496,600	97,45050026	Válido					35982961,89	117,6932	305735,2667
25	-60	55	55.000,000	11.330,000	106,4424727	Válido					55835283,59	117,6932	474413,8454
25	-60	63,6	63.600,000	13.101,600	114,4622208	Válido					79621912,89	117,6932	676520,928
25	-60	64,1	64.100,000	13.204,600	114,9112701	Válido					81146751,92	117,6932	689476,9785

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068	
25	-60	77,7	77.700,000	16.006,200	126,5156117	Válido					128722084,2	117,6932	1093708,763	
25	-60	78,7	78.700,000	16.212,200	127,3271377	Válido					132689998,7	117,6932	1127422,813	
25	-60	87,8	87.800,000	18.086,800	134,4871741	Válido					171801655	117,6932	1459741,557	
25	-60	89,1	89.100,000	18.354,600	135,4791497	Válido					177833800,3	117,6932	1510994,69	
25	-60	116,3	116.300,000	23.957,800	154,783074	Válido					330020888	117,6932	2804077,789	
25	-60	128,7	128.700,000	26.512,200	162,8256737	Válido					416126261,3	117,6932	3535686,525	
25	-60	129	129.000,000	26.574,000	163,0153367	Válido					418341020,6	117,6932	3554504,599	
25	-60	131,7	131.700,000	27.130,200	164,7124768	Válido					438554837,8	117,6932	3726254,684	
25	-60	133,7	133.700,000	27.542,200	165,9584285	Válido					453854572,7	117,6932	3856251,446	
25	-60	133,7	133.700,000	27.542,200	165,9584285	Válido					453854572,7	117,6932	3856251,446	
25	-60	140,7	140.700,000	28.984,200	170,2474669	Válido					509599080,2	117,6932	4329893,997	
25	-60	150,4	150.400,000	30.982,400	176,0181809	Válido					592517033	117,6932	5034420,281	
25	-60	164,6	164.600,000	33.907,600	184,140164	Válido					725871010,5	117,6932	6167484,702	
25	-60	166,1	166.100,000	34.216,600	184,9772959	Válido					740792750,6	117,6932	6294269,768	
25	-60	176	176.000,000	36.256,000	190,4100838	Válido					843298173,6	117,6932	7165224,274	
25	-60	197,6	197.600,000	40.705,600	201,7562886	Válido					1091334248	117,6932	9272704,349	
25	-60	200,2	200.200,000	41.241,200	203,0792949	Válido					1123458215	117,6932	9545651,021	
25	-60	217,1	217.100,000	44.722,600	211,4771855	Válido					1344213155	117,6932	11421332,37	
25	-60	219,5	219.500,000	45.217,000	212,6428931	Válido					1377247421	117,6932	117202013,54	
25	-60	234,5	234.500,000	48.307,000	219,7885347	Válido					1593243836	117,6932	13537263,29	
25	-60	275,9	275.900,000	56.835,400	238,4017617	Censurado					0	117,6932	1,939735435	
25	-60	369,1	369.100,000	76.034,600	275,7437216	Censurado					0	117,6932	1,939735435	
25	-60	373,6	373.600,000	76.961,600	277,4195379	Censurado					0	117,6932	1,939735435	
25	-60	427,1	427.100,000	87.982,600	296,6186103	Censurado					0	117,6932	1,939735435	
25	-60	678,2	678.200,000	139.709,200	373,7769388	Censurado					0	117,6932	1,939735435	
25	-60	687,7	687.700,000	141.666,200	376,3857064	Censurado					0	117,6932	1,939735435	
T. Válidos						118						Soma dos K0		1088700772
T. Censurados						8						Somatoria ^{1/4}		181,6465412
											anterior +20		201,6465412	
											Kjc Médio		185,7343042	
													155,7343042	
													2,224775774	
											LN		0,799656135	
											T - T0		42,08590238	
											T0		-102,0859024	
25	-40	61,6		12.689,600	112,6481247	Válido					73679476,71	69,6932	1057197,499	
25	-40	113,2		23.319,200	152,706254	Válido					310145554,3	69,6932	4450155,17	
25	-40	136,6		28.139,600	167,7486215	Válido					476533843,6	69,6932	6837594,537	
25	-40	139,3		28.695,800	169,3983471	Válido					498176423,4	69,6932	7148135,305	
25	-40	155,4		32.012,400	178,9200939	Válido					637845141,6	69,6932	9152186,177	
25	-40	165,5		34.093,000	184,6428986	Válido					734804848,9	69,6932	10543422,44	
25	-40	195,2		40.211,200	200,5273049	Válido					1062115127	69,6932	15239867,4	
25	-40	203,4		41.900,400	204,695872	Válido					1163667099	69,6932	16696996,25	
25	-40	233,2		48.039,200	219,1784661	Válido					1573872452	69,6932	22582869,67	
25	-40	251		51.706,000	227,3895336	Válido					1849896113	69,6932	26543423,36	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
25	-40	254,5		52.427,000	228,9694303	Censurado					0	69,6932	3,269214939
25	-40	264,8		54.548,800	233,5568453	Censurado					0	69,6932	3,269214939
25	-40	275,9		56.835,400	238,4017617	Censurado					0	69,6932	3,269214939
25	-40	283		58.298,000	241,4497877	Censurado					0	69,6932	3,269214939
25	-40	311,7		64.210,200	253,3973165	Censurado					0	69,6932	3,269214939
25	-40	349,2		71.935,200	268,2073824	Censurado					0	69,6932	3,269214939
25	-40	483,2		99.539,200	315,498336	Censurado					0	69,6932	3,269214939
25	-40	548,6		113.011,600	336,1719798	Censurado					0	69,6932	3,269214939
25	-40	562,8		115.936,800	340,4949339	Censurado					0	69,6932	3,269214939
25	-40	619,9		127.699,400	357,3505282	Censurado					0	69,6932	3,269214939
25	-40	758,7		156.292,200	395,3380832	Censurado					0	69,6932	3,269214939
25	-40	773,9		159.423,400	399,2785995	Censurado					0	69,6932	3,269214939
25	-40	1127,9		232.347,400	482,0242732	Censurado					0	69,6932	3,269214939
25	-40	1174		241.844,000	491,7763719	Censurado					0	69,6932	3,269214939
25	-40	1337,1		275.442,600	524,826257	Censurado					0	69,6932	3,269214939
25	-40	1337,2		275.463,200	524,8458821	Censurado					0	69,6932	3,269214939
25	-40	1433,6		295.321,600	543,4350007	Censurado					0	69,6932	3,269214939
25	-40	1544,1		318.084,600	563,9898935	Censurado					0	69,6932	3,269214939
25	-40	1573,3		324.099,800	569,2976374	Censurado					0	69,6932	3,269214939
25	-40	1714,3		353.145,800	594,2607172	Censurado					0	69,6932	3,269214939
50	-40	49,1		10.114,600	100,5713677	Válido	80,571368	1,189207	95,81604373	115,8160437	84285513,88	69,6932	1209379,306
50	-40	50,6		10.423,600	102,0960332	Válido	82,096033	1,189207	97,62918682	117,6291868	90848693,89	69,6932	1303551,765
50	-40	60,6		12.483,600	111,7300318	Válido	91,730032	1,189207	109,0860064	129,0860064	141604211,9	69,6932	2031822,501
50	-40	93,8		19.322,800	139,0064747	Válido	119,00647	1,189207	141,5233464	161,5233464	401155135,9	69,6932	5756015,449
50	-40	107,4		22.124,400	148,7427309	Válido	128,74273	1,189207	153,1017716	173,1017716	549440747,8	69,6932	7883706,7
50	-40	107,5		22.145,000	148,8119619	Válido	128,81196	1,189207	153,1841016	173,1841016	550623541,1	69,6932	7900678,131
50	-40	119		24.514,000	156,5694734	Válido	136,56947	1,189207	162,4093895	182,4093895	695736094,4	69,6932	9982840,426
50	-40	122,7		25.276,200	158,9849049	Válido	138,9849	1,189207	165,2818378	185,2818378	746277818,3	69,6932	10708043,51
50	-40	137,8		28.386,800	168,4838271	Válido	148,48383	1,189207	176,5780237	196,5780237	972179831	69,6932	13949421,62
50	-40	139,9		28.819,400	169,7627757	Válido	149,76278	1,189207	178,0989584	198,0989584	1006110121	69,6932	14436273,86
50	-40	166,5		34.299,000	185,199892	Válido	165,19989	1,189207	196,456887	216,456887	1489597834	69,6932	21373646,69
50	-40	167		34.402,000	185,4777615	Válido	165,47776	1,189207	196,7873313	216,7873313	1499645279	69,6932	21517813,49
50	-40	167		34.402,000	185,4777615	Válido	165,47776	1,189207	196,7873313	216,7873313	1499645279	69,6932	21517813,49
50	-40	168,9		34.793,400	186,5298904	Válido	166,52989	1,189207	198,0385305	218,0385305	1538150320	69,6932	22070307
50	-40	187		38.522,000	196,2702219	Válido	176,27022	1,189207	209,621802	229,621802	1930837836	69,6932	27704823,94
50	-40	205,3		42.291,800	205,6497022	Válido	185,6497	1,189207	220,7759467	240,7759467	2375784382	69,6932	34089184,91
50	-40	210		43.260,000	207,9903844	Válido	187,99038	1,189207	223,5595027	243,5595027	2497885571	69,6932	35841166,29
50	-40	212,8		43.836,800	209,3723955	Válido	189,3724	1,189207	225,2030001	245,2030001	2572152343	69,6932	36906790,66
50	-40	217,1		44.722,600	211,4771855	Válido	191,47719	1,189207	227,7060314	247,7060314	2688426309	69,6932	38575159,55
50	-40	219,3		45.175,800	212,545995	Válido	192,546	1,189207	228,9770672	248,9770672	2748957050	69,6932	39443691,06
50	-40	245		50.470,000	224,6552915	Válido	204,65529	1,189207	243,3775288	263,3775288	3508503451	69,6932	50342120,2
50	-40	251,8		51.870,800	227,7516191	Válido	207,75162	1,189207	247,0597036	267,0597036	3725698132	69,6932	53458560,27
50	-40	271,9		56.011,400	236,667277	Válido	216,66728	1,189207	257,6622674	277,6622674	4407611391	69,6932	63243062,32
50	-40	272,7		56.176,200	237,0151894	Válido	217,01519	1,189207	258,0760073	278,0760073	4435989652	69,6932	63650250,69

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
												Ln	0,981551913
												T-T0	51,65907716
25	-20	78,9		16.253,400	127,488823	Válido					133491382,3	55,6932	2396906,307
25	-20	102,7		21.156,200	145,4517102	Válido					247688786	55,6932	4447379,321
25	-20	258,8		53.312,800	230,8956474	Censurado					0	55,6932	3,97157936
25	-20	723,7		149.082,200	386,1116419	Censurado					0	55,6932	3,97157936
25	-20	772,5		159.135,000	398,9172847	Censurado					0	55,6932	3,97157936
25	-20	798,3		164.449,800	405,5241053	Censurado					0	55,6932	3,97157936
25	-20	914,9		188.469,400	434,1306255	Censurado					0	55,6932	3,97157936
25	-20	1133,7		233.542,200	483,2620407	Censurado					0	55,6932	3,97157936
25	-20	1340		276.040,000	525,3950894	Censurado					0	55,6932	3,97157936
25	-20	1348,6		277.811,600	527,0783623	Censurado					0	55,6932	3,97157936
25	-20	1361,1		280.386,600	529,5154389	Censurado					0	55,6932	3,97157936
25	-20	1368,5		281.911,000	530,9529169	Censurado					0	55,6932	3,97157936
25	-20	1368,6		281.931,600	530,9723157	Censurado					0	55,6932	3,97157936
25	-20	1371,1		282.446,600	531,4570538	Censurado					0	55,6932	3,97157936
25	-20	1381,3		284.547,800	533,4302204	Censurado					0	55,6932	3,97157936
25	-20	1391		286.546,000	535,2999159	Censurado					0	55,6932	3,97157936
25	-20	1408,2		290.089,200	538,5992945	Censurado					0	55,6932	3,97157936
25	-20	1436,3		295.877,800	543,9465047	Censurado					0	55,6932	3,97157936
25	-20	1459,7		300.698,200	548,3595536	Censurado					0	55,6932	3,97157936
25	-20	1472,5		303.335,000	550,7585678	Censurado					0	55,6932	3,97157936
25	-20	1473,7		303.582,200	550,9829398	Censurado					0	55,6932	3,97157936
25	-20	1480,1		304.900,600	552,178051	Censurado					0	55,6932	3,97157936
25	-20	1496,6		308.299,600	555,2473323	Censurado					0	55,6932	3,97157936
25	-20	1497,2		308.423,200	555,3586229	Censurado					0	55,6932	3,97157936
25	-20	1499		308.794,000	555,6923609	Censurado					0	55,6932	3,97157936
25	-20	1524,5		314.047,000	560,398965	Censurado					0	55,6932	3,97157936
25	-20	1547,8		318.846,800	564,6652105	Censurado					0	55,6932	3,97157936
25	-20	1553,3		319.979,800	565,6675702	Censurado					0	55,6932	3,97157936
25	-20	1554,5		320.227,000	565,8860309	Censurado					0	55,6932	3,97157936
25	-20	1560,5		321.463,000	566,9770718	Censurado					0	55,6932	3,97157936
25	-20	1575		324.450,000	569,6051264	Censurado					0	55,6932	3,97157936
50	-20	139		28.634,000	169,2158385	Válido	149,21584	1,189207	177,4485368	197,4485368	991493087,2	55,6932	17802767,43
50	-20	162		33.372,000	182,6800482	Válido	162,68005	1,189207	193,4602708	213,4602708	1400771074	55,6932	25151563,82
50	-20	168,1		34.628,600	186,0876138	Válido	166,08761	1,189207	197,512572	217,512572	1521874982	55,6932	27326046,66
50	-20	180,6		37.203,600	192,8823476	Válido	172,88235	1,189207	205,5929178	225,5929178	1786621683	55,6932	32079709,6
50	-20	195,2		40.211,200	200,5273049	Válido	180,5273	1,189207	214,6843554	234,6843554	2124230253	55,6932	38141644,82
50	-20	256		52.736,000	229,6432015	Válido	209,6432	1,189207	249,3091868	269,3091868	3863252807	55,6932	69366687,62
50	-20	259		53.354,000	230,984848	Válido	210,98485	1,189207	250,9046824	270,9046824	3963100309	55,6932	71159500,78
50	-20	291		59.946,000	244,8387224	Válido	224,83872	1,189207	267,3798084	287,3798084	5111100625	55,6932	91772435,86
50	-20	326,5		67.259,000	259,3434017	Válido	239,3434	1,189207	284,6288762	304,6288762	6563202928	55,6932	117845678,2
50	-20	328,8		67.732,800	260,2552593	Válido	240,25526	1,189207	285,7132638	305,7132638	6663794707	55,6932	119651855,3
50	-20	330		67.980,000	260,7297451	Válido	240,72975	1,189207	286,2775257	306,2775257	6716592804	55,6932	120599872,2

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
50	-20	362,3		74.633,800	273,191874	Censurado	253,19187	1,189207	301,097578	321,097578	0	55,6932	5,61666146
50	-20	380		78.280,000	279,7856322	Censurado	259,78563	1,189207	308,9389222	328,9389222	0	55,6932	5,61666146
50	-20	392		80.752,000	284,1689638	Censurado	264,16896	1,189207	314,1516113	334,1516113	0	55,6932	5,61666146
50	-20	417		85.902,000	293,0904297	Censurado	273,09043	1,189207	324,7610821	344,7610821	0	55,6932	5,61666146
50	-20	447		92.082,000	303,4501607	Censurado	283,45016	1,189207	337,0809478	357,0809478	0	55,6932	5,61666146
50	-20	480		98.880,000	314,4519041	Censurado	294,4519	1,189207	350,1642994	370,1642994	0	55,6932	5,61666146
50	-20	486,8		100.280,800	316,6714386	Censurado	296,67144	1,189207	352,8037856	372,8037856	0	55,6932	5,61666146
50	-20	502		103.412,000	321,5773624	Censurado	301,57736	1,189207	358,6379451	378,6379451	0	55,6932	5,61666146
50	-20	512		105.472,000	324,7645301	Censurado	304,76453	1,189207	362,4281476	382,4281476	0	55,6932	5,61666146
50	-20	555		114.330,000	338,127195	Censurado	318,1272	1,189207	378,3191238	398,3191238	0	55,6932	5,61666146
50	-20	648,8		133.652,800	365,5855577	Censurado	345,58556	1,189207	410,9728041	430,9728041	0	55,6932	5,61666146
50	-20	655,6		135.053,600	367,4963945	Censurado	347,49639	1,189207	413,2451848	433,2451848	0	55,6932	5,61666146
50	-20	695		143.170,000	378,3781178	Censurado	358,37812	1,189207	426,1858075	446,1858075	0	55,6932	5,61666146
50	-20	807		166.242,000	407,7278504	Censurado	387,72785	1,189207	461,0887184	481,0887184	0	55,6932	5,61666146
50	-20	820		168.920,000	410,9987835	Censurado	390,99878	1,189207	464,9785352	484,9785352	0	55,6932	5,61666146
50	-20	1017		209.502,000	457,7138844	Censurado	437,71388	1,189207	520,5324657	540,5324657	0	55,6932	5,61666146
50	-20	1266		260.796,000	510,6818971	Censurado	490,6819	1,189207	583,5224032	603,5224032	0	55,6932	5,61666146
50	-20	1582		325.892,000	570,8695122	Censurado	550,86951	1,189207	655,0979434	675,0979434	0	55,6932	5,61666146
50	-20	1619		333.514,000	577,5067099	Censurado	557,50671	1,189207	662,9909461	682,9909461	0	55,6932	5,61666146
100	-20	58,6		12.071,600	109,8708333	Válido	89,870833	1,414214	127,0965513	147,0965513	260936639,4	55,6932	4685251,33
100	-20	74,4		15.326,400	123,7998384	Válido	103,79984	1,414214	146,7951393	166,7951393	464351338,4	55,6932	8337666,689
100	-20	82,8		17.056,800	130,6016845	Válido	110,60168	1,414214	156,4144023	176,4144023	598558989,3	55,6932	10747433,97
100	-20	100,6		20.723,600	143,956938	Válido	123,95694	1,414214	175,3015829	195,3015829	944372539,6	55,6932	16956693,81
100	-20	112,2		23.113,200	152,0302601	Válido	132,03026	1,414214	186,7189845	206,7189845	1215497045	55,6932	21824873,5
100	-20	123,7		25.482,200	159,6314505	Válido	139,63145	1,414214	197,4686911	217,4686911	1520522986	55,6932	27301770,88
100	-20	130,8		26.944,800	164,1487131	Válido	144,14871	1,414214	203,857065	223,857065	1727042675	55,6932	31009937,93
100	-20	133,4		27.480,400	165,7721328	Válido	145,77213	1,414214	206,1529272	226,1529272	1806167498	55,6932	32430664,75
100	-20	186,1		38.336,600	195,7973442	Válido	175,79734	1,414214	248,6149884	268,6149884	3820403469	55,6932	68597305,76
100	-20	188,4		38.810,400	197,0035533	Válido	177,00355	1,414214	250,3208256	270,3208256	3926340233	55,6932	70499454,74
100	-20	191,7		39.490,200	198,721413	Válido	178,72141	1,414214	252,7502462	272,7502462	4080997693	55,6932	73276408,84
100	-20	193		39.758,000	199,3940822	Válido	179,39408	1,414214	253,701544	273,701544	4142785440	55,6932	74385839,56
100	-20	212,3		43.733,800	209,1262776	Válido	189,12628	1,414214	267,4649468	287,4649468	5117613590	55,6932	91889379,49
100	-20	212,5		43.775,000	209,2247595	Válido	189,22476	1,414214	267,6042213	287,6042213	5128281299	55,6932	92080923,69
100	-20	223		45.938,000	214,3315189	Válido	194,33152	1,414214	274,8262696	294,8262696	5704702120	55,6932	102430855,5
100	-20	224,4		46.226,400	215,0032558	Válido	195,00326	1,414214	275,776249	295,776249	5783988770	55,6932	103854488
100	-20	231,2		47.627,200	218,2365689	Válido	198,23657	1,414214	280,3488443	300,3488443	6177248610	55,6932	110915670,3
100	-20	247,3		50.943,800	225,7073326	Válido	205,70733	1,414214	290,9140997	310,9140997	7162408427	55,6932	128604720,6
100	-20	288,5		59.431,000	243,7847411	Válido	223,78474	1,414214	316,4794159	336,4794159	10031869493	55,6932	180127367,3
100	-20	299,8		61.758,800	248,5131787	Válido	228,51318	1,414214	323,1664365	343,1664365	10906992078	55,6932	195840642,6
100	-20	301,3		62.067,800	249,1341004	Válido	229,1341	1,414214	324,0445524	344,0445524	11026023136	55,6932	197977906,4
100	-20	315,9		65.075,400	255,0988044	Válido	235,0988	1,414214	332,4799177	352,4799177	12219731778	55,6932	219411557,9
100	-20	318,2		65.549,200	256,02578	Válido	236,02578	1,414214	333,7908591	353,7908591	12413600285	55,6932	222892566,5
100	-20	324,6		66.867,600	258,5877027	Válido	238,5877	1,414214	337,413965	357,413965	12961408950	55,6932	232728752,4
100	-20	334,9		68.989,400	262,6583332	Válido	242,65833	1,414214	343,1707058	363,1707058	13868862163	55,6932	249022540,7

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	Jc p/ Mt	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068	
100	-20	371,9		76.611,400	276,7876442	Válido	256,78764	1,414214	363,1525691	383,1525691	17392278605	55,6932	312287291,9	
100	-20	373,5		76.941,000	277,3824075	Válido	257,38241	1,414214	363,9936914	383,9936914	17553973034	55,6932	315190598,4	
100	-20	384,1		79.124,600	281,2909526	Válido	261,29095	1,414214	369,5212089	389,5212089	18644789305	55,6932	334776764,6	
100	-20	588,7		121.272,200	348,2415828	Censurado	328,24158	1,414214	464,2036981	484,2036981	0	55,6932	7,94315877	
100	-20	683,1		140.718,600	375,1247792	Censurado	355,12478	1,414214	502,2222791	522,2222791	0	55,6932	7,94315877	
200	-20	112		23.072,000	151,8947004	Válido	131,8947	1,681793	221,8195615	241,8195615	2421025531	55,6932	43470756,42	
200	-20	117		24.102,000	155,2481884	Válido	135,24819	1,681793	227,4594336	247,4594336	2676799320	55,6932	48063306,12	
200	-20	125		25.750,000	160,4680654	Válido	140,46807	1,681793	236,2381852	256,2381852	3114586458	55,6932	55923998,95	
200	-20	162		33.372,000	182,6800482	Válido	162,68005	1,681793	273,5941387	293,5941387	5603084296	55,6932	100606255,3	
200	-20	162		33.372,000	182,6800482	Válido	162,68005	1,681793	273,5941387	293,5941387	5603084296	55,6932	100606255,3	
200	-20	166		34.196,000	184,921605	Válido	164,92161	1,681793	277,3639729	297,3639729	5918343906	55,6932	106266903,4	
200	-20	168		34.608,000	186,0322553	Válido	166,03226	1,681793	279,2318565	299,2318565	6079387909	55,6932	109158531,2	
200	-20	175		36.050,000	189,8683755	Válido	169,86838	1,681793	285,683416	305,683416	6661010537	55,6932	119601864,1	
200	-20	179		36.874,000	192,0260399	Válido	172,02604	1,681793	289,3121606	309,3121606	7005945497	55,6932	125795348,4	
200	-20	179		36.874,000	192,0260399	Válido	172,02604	1,681793	289,3121606	309,3121606	7005945497	55,6932	125795348,4	
200	-20	187		38.522,000	196,2702219	Válido	176,27022	1,681793	296,4499954	316,4499954	7723351343	55,6932	138676738,7	
200	-20	199		40.994,000	202,4697508	Válido	182,46975	1,681793	306,8763187	326,8763187	8868568054	55,6932	159239692,7	
200	-20	234		48.204,000	219,5540936	Válido	199,55409	1,681793	335,6086439	355,6086439	12686229143	55,6932	227787757,6	
200	-20	236		48.616,000	220,4903626	Válido	200,49036	1,681793	337,1832544	357,1832544	12925995256	55,6932	232092881,3	
200	-20	239		49.234,000	221,8873588	Válido	201,88736	1,681793	339,5327126	359,5327126	13290046261	55,6932	238629604	
						Válidos	56					Somatoria	6199542856	
						Censurados	50					Somatoria ^{1/4}	280,6014537	
										K0	300,6014537			
										Kjc Médio	276,0207664			
											246,0207664			
											3,514582376			
										Ln	1,256920706			
										T-T0	66,15173678			

specimen	test W, mm	fracture	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
width W, mm	temperature centigrade	resistance Jo, N/mm										
25	-91	19,9	4.099,400	64,03	Válido					3757153,118	109,6932	34251,4679
25	-91	21,3	4.387,800	66,24	Válido					4571818,671	109,6932	41678,2323
25	-91	23,1	4.758,600	68,98	Válido					5756620,047	109,6932	52479,279
25	-91	23,7	4.882,200	69,87	Válido					6186613,242	109,6932	56399,24118
25	-91	29,1	5.994,600	77,42	Válido					10874217,93	109,6932	99133,01767
25	-91	29,4	6.056,400	77,82	Válido					11178891,73	109,6932	101910,5262
25	-91	38,6	7.951,600	89,17	Válido					22893643,32	109,6932	208706,1305
25	-91	39,7	8.178,200	90,43	Válido					24610171,27	109,6932	224354,575
25	-91	42,3	8.713,800	93,35	Válido					28943222,01	109,6932	263856,1188
25	-91	46,3	9.537,800	97,66	Válido					36376984,58	109,6932	331624,7915
25	-91	47,3	9.743,800	98,71	Válido					38382639,98	109,6932	349909,0188
25	-91	48,9	10.073,400	100,37	Válido					41715410,74	109,6932	380291,6747
25	-91	51,4	10.588,400	102,90	Válido					47229908,47	109,6932	430563,6856
25	-91	52	10.712,000	103,50	Válido					48609457,63	109,6932	443140,1183
25	-91	55,9	11.515,400	107,31	Válido					58110231,58	109,6932	529752,36
25	-91	56,6	11.659,600	107,98	Válido					59914022,7	109,6932	546196,3248
25	-91	59,4	12.236,400	110,62	Válido					67431515,97	109,6932	614728,3147
25	-91	63,3	13.039,800	114,19	Válido					78714553,27	109,6932	717588,2668
25	-91	68,5	14.111,000	118,79	Válido					95246099,01	109,6932	868295,3821
25	-91	70,2	14.461,200	120,25	Válido					101022818,4	109,6932	920957,8934
25	-91	70,6	14.543,600	120,60	Válido					102408855,1	109,6932	933593,4688
25	-91	71,4	14.708,400	121,28	Válido					105211635	109,6932	959144,55
25	-91	76	15.656,000	125,12	Válido					122125539,4	109,6932	1113337,376
25	-91	76,5	15.759,000	125,53	Válido					124046262,3	109,6932	1130847,33
25	-91	76,6	15.779,600	125,62	Válido					124432349,2	109,6932	1134367,027
25	-91	76,8	15.820,800	125,78	Válido					125206466,4	109,6932	1141424,139
25	-91	77	15.862,000	125,94	Válido					125983175,5	109,6932	1148504,88
25	-91	77,2	15.903,200	126,11	Válido					126762477,6	109,6932	1155609,26
25	-91	93,9	19.343,400	139,08	Válido					201077445,6	109,6932	1833089,431
25	-91	112,8	23.236,800	152,44	Válido					307628845,9	109,6932	2804447,731
25	-91	124,3	25.605,800	160,02	Válido					384358967,4	109,6932	3503945,252
50	-91	14,9	3.069,400	55,40	Válido	35,40	1,189207	42,10	62,10	3141588,752	109,6932	28639,77669
50	-91	18,3	3.769,800	61,40	Válido	41,40	1,189207	49,23	69,23	5874578,163	109,6932	53554,62475
50	-91	18,8	3.872,800	62,23	Válido	42,23	1,189207	50,22	70,22	6361937,218	109,6932	57997,55334
50	-91	20,2	4.161,200	64,51	Válido	44,51	1,189207	52,93	72,93	7847972,75	109,6932	71544,75163
50	-91	22,4	4.614,400	67,93	Válido	47,93	1,189207	57,00	77,00	10554485,37	109,6932	96218,22837
50	-91	24,6	5.067,600	71,19	Válido	51,19	1,189207	60,87	80,87	13730025,15	109,6932	125167,514
50	-91	27,7	5.706,200	75,54	Válido	55,54	1,189207	66,05	86,05	19029813,55	109,6932	173482,1626

specimen	test W, mm	fracture	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
width W, mm	temperature centigrade	resistance Jo, N/mm										
50	-91	30,2	6.221,200	78,87	Válido	58,87	1,189207	70,01	90,01	24029315,59	109,6932	219059,2999
50	-91	30,4	6.262,400	79,14	Válido	59,14	1,189207	70,32	90,32	24457834,96	109,6932	222965,8262
50	-91	30,6	6.303,600	79,40	Válido	59,40	1,189207	70,63	90,63	24890624,91	109,6932	226911,2845
50	-91	31,7	6.530,200	80,81	Válido	60,81	1,189207	72,32	92,32	27347655,05	109,6932	249310,3952
50	-91	34,3	7.065,800	84,06	Válido	64,06	1,189207	76,18	96,18	33676890,66	109,6932	307009,8298
50	-91	41,5	8.549,000	92,46	Válido	72,46	1,189207	86,17	106,17	55136926,54	109,6932	502646,7141
50	-91	41,6	8.569,600	92,57	Válido	72,57	1,189207	86,30	106,30	55476566,17	109,6932	505742,9829
50	-91	45,3	9.331,800	96,60	Válido	76,60	1,189207	91,09	111,09	68860987,42	109,6932	627759,8559
50	-91	46,1	9.496,600	97,45	Válido	77,45	1,189207	92,10	112,10	71965923,79	109,6932	656065,4971
50	-91	46,5	9.579,000	97,87	Válido	77,87	1,189207	92,61	112,61	73546747,77	109,6932	670476,8187
50	-91	47,3	9.743,800	98,71	Válido	78,71	1,189207	93,60	113,60	76765279,96	109,6932	699818,0376
50	-91	48,7	10.032,200	100,16	Válido	80,16	1,189207	95,33	115,33	82580916,19	109,6932	752835,3279
50	-91	52,7	10.856,200	104,19	Válido	84,19	1,189207	100,12	120,12	100492995,4	109,6932	916127,849
50	-91	54,6	11.247,600	106,05	Válido	86,05	1,189207	102,34	122,34	109680250,4	109,6932	999881,947
50	-91	55,6	11.453,600	107,02	Válido	87,02	1,189207	103,49	123,49	114692790,5	109,6932	1045577,944
50	-91	57,4	11.824,400	108,74	Válido	88,74	1,189207	105,53	125,53	124024878,2	109,6932	1130652,385
50	-91	58,7	12.092,200	109,96	Válido	89,96	1,189207	106,99	126,99	131013317,9	109,6932	1194361,346
50	-91	59,1	12.174,600	110,34	Válido	90,34	1,189207	107,43	127,43	133205709,4	109,6932	1214347,921
50	-91	67	13.802,000	117,48	Válido	97,48	1,189207	115,93	135,93	180603506,3	109,6932	1646442,134
50	-91	75,7	15.594,200	124,88	Válido	104,88	1,189207	124,72	144,72	241961740,5	109,6932	2205804,375
50	-91	76,2	15.697,200	125,29	Válido	105,29	1,189207	125,21	145,21	245783773,5	109,6932	2240647,31
50	-91	78,6	16.191,600	127,25	Válido	107,25	1,189207	127,54	147,54	264580565	109,6932	2412005,165
50	-91	81	16.686,000	129,17	Válido	109,17	1,189207	129,83	149,83	284126455,3	109,6932	2590192,057
50	-91	86	17.716,000	133,10	Válido	113,10	1,189207	134,50	154,50	327267529,4	109,6932	2983480,557
50	-91	86,5	17.819,000	133,49	Válido	113,49	1,189207	134,96	154,96	331762366,3	109,6932	3024456,997
50	-91	100,5	20.703,000	143,89	Válido	123,89	1,189207	147,33	167,33	471096740,4	109,6932	4294675,881
50	-91	117,8	24.266,800	155,78	Válido	135,78	1,189207	161,47	181,47	679748454,8	109,6932	6196814,887
100	-91	19,6	4.037,600	63,54	Válido	43,54	1,414214	61,58	81,58	14377982,62	109,6932	131074,5117
100	-91	19,7	4.058,200	63,70	Válido	43,70	1,414214	61,81	81,81	14593009,36	109,6932	133034,7676
100	-91	21,6	4.449,600	66,71	Válido	46,71	1,414214	66,05	86,05	19033798,98	109,6932	173518,495
100	-91	23,3	4.799,800	69,28	Válido	49,28	1,414214	69,69	89,69	23591934,17	109,6932	215071,9841
100	-91	25,4	5.232,400	72,34	Válido	52,34	1,414214	74,01	94,01	30008194,56	109,6932	273564,7657
100	-91	25,9	5.335,400	73,04	Válido	53,04	1,414214	75,02	95,02	31666440,05	109,6932	288681,8877
100	-91	27,7	5.706,200	75,54	Válido	55,54	1,414214	78,54	98,54	38059627,11	109,6932	346964,3251
100	-91	29,5	6.077,000	77,96	Válido	57,96	1,414214	81,96	101,96	45126025,84	109,6932	411383,9859
100	-91	32	6.592,000	81,19	Válido	61,19	1,414214	86,54	106,54	56080768,45	109,6932	511251,0935
100	-91	32,1	6.612,600	81,32	Válido	61,32	1,414214	86,72	106,72	56546917,14	109,6932	515500,6613
100	-91	32,9	6.777,400	82,32	Válido	62,32	1,414214	88,14	108,14	60354295,91	109,6932	550210,003

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
100	-91	33	6.798,000	82,45	Válido	62,45	1,414214	88,32	108,32	60840018,92	109,6932	554638,0169
100	-91	33,4	6.880,400	82,95	Válido	62,95	1,414214	89,02	109,02	62804767,08	109,6932	572549,3201
100	-91	35,8	7.374,800	85,88	Válido	65,88	1,414214	93,16	113,16	75333156,8	109,6932	686762,3226
100	-91	35,9	7.395,400	86,00	Válido	66,00	1,414214	93,33	113,33	75882898,66	109,6932	691773,9537
100	-91	37,6	7.745,600	88,01	Válido	68,01	1,414214	96,18	116,18	85571246,37	109,6932	780096,1807
100	-91	39,6	8.157,600	90,32	Válido	70,32	1,414214	99,45	119,45	97805085,15	109,6932	891623,958
100	-91	40,1	8.260,600	90,89	Válido	70,89	1,414214	100,25	120,25	101005968,5	109,6932	920804,2844
100	-91	40,6	8.363,600	91,45	Válido	71,45	1,414214	101,05	121,05	104264161,5	109,6932	950507,0645
100	-91	41,1	8.466,600	92,01	Válido	72,01	1,414214	101,84	121,84	107579828,9	109,6932	980733,8
100	-91	41,3	8.507,800	92,24	Válido	72,24	1,414214	102,16	122,16	108922225	109,6932	992971,5329
100	-91	41,3	8.507,800	92,24	Válido	72,24	1,414214	102,16	122,16	108922225	109,6932	992971,5329
100	-91	42,3	8.713,800	93,35	Válido	73,35	1,414214	103,73	123,73	115772888,1	109,6932	1055424,475
100	-91	42,7	8.796,200	93,79	Válido	73,79	1,414214	104,35	124,35	118578058,5	109,6932	1080997,35
100	-91	45,6	9.393,600	96,92	Válido	76,92	1,414214	108,78	128,78	140032979,4	109,6932	1276587,604
100	-91	46,6	9.599,600	97,98	Válido	77,98	1,414214	110,28	130,28	147889826,7	109,6932	1348213,26
100	-91	47,6	9.805,600	99,02	Válido	79,02	1,414214	111,76	131,76	155983654,4	109,6932	1421999,307
100	-91	49,2	10.135,200	100,67	Válido	80,67	1,414214	114,09	134,09	169429313	109,6932	1544574,44
100	-91	53,7	11.062,200	105,18	Válido	85,18	1,414214	120,46	140,46	210547079,5	109,6932	1919417,79
100	-91	126,4	26.038,400	161,36	Válido	141,36	1,414214	199,92	219,92	1597414266	109,6932	14562564,18
200	-91	13,8	2.842,800	53,32	Válido	33,32	1,681793	56,03	76,03	9858281,639	109,6932	89871,40168
200	-91	20,4	4.202,400	64,83	Válido	44,83	1,681793	75,39	95,39	32300322,8	109,6932	294460,5755
200	-91	23	4.738,000	68,83	Válido	48,83	1,681793	82,13	102,13	45493388,84	109,6932	414732,9902
200	-91	23,2	4.779,200	69,13	Válido	49,13	1,681793	82,63	102,63	46616451,6	109,6932	424971,207
200	-91	25,4	5.232,400	72,34	Válido	52,34	1,681793	88,02	108,02	60016389,12	109,6932	547129,5314
200	-91	25,6	5.273,600	72,62	Válido	52,62	1,681793	88,50	108,50	61330813,25	109,6932	559112,2627
200	-91	25,8	5.314,800	72,90	Válido	52,90	1,681793	88,97	108,97	62661460,34	109,6932	571242,8878
200	-91	30,2	6.221,200	78,87	Válido	58,87	1,681793	99,01	119,01	96117262,38	109,6932	876237,1996
200	-91	33,9	6.983,400	83,57	Válido	63,57	1,681793	106,91	126,91	130620017,9	109,6932	1190775,89
200	-91	36,9	7.601,400	87,19	Válido	67,19	1,681793	112,99	132,99	163006655,8	109,6932	1486023,343
200	-91	38,8	7.992,800	89,40	Válido	69,40	1,681793	116,72	136,72	185604911,9	109,6932	1692036,625
200	-91	40,9	8.425,400	91,79	Válido	71,79	1,681793	120,74	140,74	212493309,2	109,6932	1937160,272
200	-91	44,6	9.187,600	95,85	Válido	75,85	1,681793	127,57	147,57	264824052,5	109,6932	2414224,879
200	-91	44,8	9.228,800	96,07	Válido	76,07	1,681793	127,93	147,93	267834797,3	109,6932	2441671,838
200	-91	50,7	10.444,200	102,20	Válido	82,20	1,681793	138,24	158,24	365183446,7	109,6932	3329134,775
Total de Válidos					110						Soma dos K0	119461054,6
											Somatoria ^{1/4}	104,545799
											anterior +20	124,545799
											Kjc Médio	115,387587

specimen	test W, mm	fracture	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
width W, mm	temperature centigrade	resistance Jo, N/mm										
85,38758701												
1,219822672												
Ln												
T - T0												
0,198705497												
10,45787031												
25	-60	34	7.004,000	83,68990381	Válido					16454412,17	114,6932	143464,5836
25	-60	40,2	8.281,200	91,00109889	Válido					25413254,26	114,6932	221575,9458
25	-60	46,9	9.661,400	98,29242087	Válido					37573260,89	114,6932	327597,9822
25	-60	52	10.712,000	103,4987923	Válido					48609457,63	114,6932	423821,6183
25	-60	54,2	11.165,200	105,66551	Válido					53854750,56	114,6932	469554,8695
25	-60	56,1	11.556,600	107,5016279	Válido					58622526,43	114,6932	511124,6912
25	-60	62,3	12.833,800	113,2863628	Válido					75730816,98	114,6932	660290,3832
25	-60	67,4	13.884,400	117,8320839	Válido					91606273,8	114,6932	798707,1056
25	-60	68	14.008,000	118,355397	Válido					93582099,2	114,6932	815934,1547
25	-60	69	14.214,000	119,2224811	Válido					96926008,89	114,6932	845089,4115
25	-60	74,6	15.367,600	123,9661244	Válido					116833508,7	114,6932	1018661,165
25	-60	78,2	16.109,200	126,9220233	Válido					130697919,3	114,6932	1139543,75
25	-60	81,3	16.747,800	129,4132914	Válido					143311265,7	114,6932	1249518,417
25	-60	81,4	16.768,400	129,4928569	Válido					143728585,3	114,6932	1253156,991
25	-60	82,3	16.953,800	130,2067587	Válido					147513890,6	114,6932	1286160,736
25	-60	90	18.540,000	136,1616686	Válido					182075439,7	114,6932	1587499,867
25	-60	90,4	18.622,400	136,4639146	Válido					183977848,2	114,6932	1604086,8
25	-60	100,3	20.661,800	143,7421302	Válido					234460859,4	114,6932	2044243,768
25	-60	112,2	23.113,200	152,0302601	Válido					303874261,2	114,6932	2649453,16
25	-60	120,3	24.781,800	157,4223618	Válido					356639656,8	114,6932	3109510,039
25	-60	123,4	25.420,400	159,4377622	Válido					378025952,7	114,6932	3295975,286
25	-60	127,4	26.244,400	162,0012346	Válido					406601035,8	114,6932	3545118,942
25	-60	129	26.574,000	163,0153367	Válido					418341020,6	114,6932	3647478,845
25	-60	140,9	29.025,400	170,3684243	Válido					511242082,6	114,6932	4457475,095
25	-60	141,9	29.231,400	170,9719275	Válido					519499100,1	114,6932	4529467,31
25	-60	142,5	29.355,000	171,3330091	Válido					524486930,2	114,6932	4572955,765
25	-60	143,1	29.478,600	171,6933313	Válido					529499988,6	114,6932	4616664,184
25	-60	191,8	39.510,800	198,7732376	Válido					1021433322	114,6932	8905787,981
25	-60	193,2	39.799,200	199,4973684	Válido					1038083632	114,6932	9050960,577
25	-60	261	53.766,000	231,8749663	Censurado					0	114,6932	0
25	-60	284,9	58.689,400	242,2589524	Censurado					0	114,6932	0
50	-60	46,7	9.620,200	98,08261824	Válido	78,082618	1,189207	92,85640516	112,8564052	74344263,88	114,6932	648201,1478
50	-60	48	9.888,000	99,43842316	Válido	79,438423	1,189207	94,46873802	114,468738	79643888,41	114,6932	694408,1115

specimen	test W, mm	fracture	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
width W, mm	temperature centigrade	resistance Jo, N/mm										
50	-60	49,9	10.279,400	101,3873759	Válido	81,387376	1,189207	96,78644654	116,7864465	87752233,9	114,6932	765104,0681
50	-60	52,9	10.897,400	104,3906126	Válido	84,390613	1,189207	100,3579169	120,3579169	101439372,4	114,6932	884441,0342
50	-60	59,4	12.236,400	110,6182625	Válido	90,618263	1,189207	107,7638825	127,7638825	134863031,9	114,6932	1175859,004
50	-60	63,1	12.998,600	114,0114029	Válido	94,011403	1,189207	111,7990293	131,7990293	156225574,6	114,6932	1362117,149
50	-60	68,1	14.028,600	118,4423911	Válido	98,442391	1,189207	117,0683919	137,0683919	187827254,5	114,6932	1637649,438
50	-60	68,2	14.049,200	118,5293213	Válido	98,529321	1,189207	117,1717699	137,1717699	188491582,3	114,6932	1643441,654
50	-60	69,2	14.255,200	119,3951423	Válido	99,395142	1,189207	118,2014104	138,2014104	195204863,8	114,6932	1701974,17
50	-60	75,1	15.470,600	124,3808667	Válido	104,38087	1,189207	124,1304693	144,1304693	237417971,4	114,6932	2070026,57
50	-60	76,2	15.697,200	125,2884671	Válido	105,28847	1,189207	125,2097943	145,2097943	245783773,5	114,6932	2142967,269
50	-60	76,5	15.759,000	125,5348557	Válido	105,53486	1,189207	125,5028013	145,5028013	248092524,6	114,6932	2163097,068
50	-60	80,6	16.603,600	128,8549572	Válido	108,85496	1,189207	129,4510896	149,4510896	280816641,8	114,6932	2448415,789
50	-60	81,9	16.871,400	129,8899534	Válido	109,88995	1,189207	130,6819145	150,6819145	291649981,3	114,6932	2542870,731
50	-60	82,9	17.077,400	130,6805265	Válido	110,68053	1,189207	131,6220696	151,6220696	300133768,2	114,6932	2616840,128
50	-60	86,1	17.736,600	133,1788271	Válido	113,17883	1,189207	134,5930665	154,5930665	328163860,5	114,6932	2861232,056
50	-60	86,2	17.757,200	133,2561443	Válido	113,25614	1,189207	134,6850126	154,6850126	329061509,5	114,6932	2869058,58
50	-60	94,4	19.446,400	139,4503496	Válido	119,45035	1,189207	142,0512056	162,0512056	407173679	114,6932	3550111,768
50	-60	95,1	19.590,600	139,9664245	Válido	119,96642	1,189207	142,6649256	162,6649256	414256047,7	114,6932	3611862,322
50	-60	96,8	19.940,800	141,2118975	Válido	121,2119	1,189207	144,1460509	164,1460509	431728774,9	114,6932	3764205,505
50	-60	97	19.982,000	141,3577023	Válido	121,3577	1,189207	144,319443	164,319443	433809817,9	114,6932	3782349,938
50	-60	98,6	20.311,600	142,5187707	Válido	122,51877	1,189207	145,7001938	165,7001938	450651185,7	114,6932	3929188,354
50	-60	109,7	22.598,200	150,326977	Válido	130,32698	1,189207	154,9857683	174,9857683	576988665,5	114,6932	5030713,813
50	-60	112,9	23.257,400	152,5037704	Válido	132,50377	1,189207	157,5744266	177,5744266	616513997,7	114,6932	5375331,734
50	-60	127,4	26.244,400	162,0012346	Válido	142,00123	1,189207	168,8688785	188,8688785	813202071,6	114,6932	7090237,884
50	-60	129,1	26.594,600	163,0785087	Válido	143,07851	1,189207	170,1499806	190,1499806	838161320,6	114,6932	7307855,397
50	-60	129,9	26.759,400	163,5830065	Válido	143,58301	1,189207	170,7499329	190,7499329	850045487,8	114,6932	7411472,414
50	-60	142,3	29.313,800	171,2127332	Válido	151,21273	1,189207	179,8232582	199,8232582	1045643035	114,6932	9116870,356
50	-60	147,4	30.364,400	174,2538378	Válido	154,25384	1,189207	183,4397615	203,4397615	1132332332	114,6932	9872706,767
50	-60	147,8	30.446,800	174,4901143	Válido	154,49011	1,189207	183,7207432	203,7207432	1139286035	114,6932	9933335,499
50	-60	163,2	33.619,200	183,3553926	Válido	163,35539	1,189207	194,2633952	214,2633952	1424176774	114,6932	12417272,98
50	-60	164,7	33.928,200	184,1960912	Válido	164,19609	1,189207	195,2631599	215,2631599	1453721629	114,6932	12674872
50	-60	176,8	36.420,800	190,8423433	Válido	170,84234	1,189207	203,1669302	223,1669302	1703774345	114,6932	14855059,8
50	-60	198	40.788,000	201,9603922	Válido	181,96039	1,189207	216,388593	236,388593	2192489147	114,6932	19116121,5
100	-60	30,4	6.262,400	79,13532713	Válido	59,135327	1,414214	83,62998164	103,6299816	48915669,93	114,6932	426491,4566
100	-60	57,5	11.845,000	108,8347371	Válido	88,834737	1,414214	125,63129	145,63129	249110066,1	114,6932	2171968,924
100	-60	63,3	13.039,800	114,1919437	Válido	94,191944	1,414214	133,2075242	153,2075242	314858213,1	114,6932	2745221,278
100	-60	64	13.184,000	114,8216008	Válido	94,821601	1,414214	134,0979938	154,0979938	323362104,1	114,6932	2819365,962
100	-60	68,5	14.111,000	118,7897302	Válido	98,78973	1,414214	139,7097763	159,7097763	380984396	114,6932	3321769,696
100	-60	82,8	17.056,800	130,6016845	Válido	110,60168	1,414214	156,4144023	176,4144023	598558989,3	114,6932	5218783,584

specimen	test W, mm	fracture	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
width W, mm	temperature centigrade	resistance Jo, N/mm										
100	-60	86,1	17.736,600	133,1788271	Válido	113,17883	1,414214	160,0590323	180,0590323	656327721	114,6932	5722464,113
100	-60	88,3	18.189,800	134,8695666	Válido	114,86957	1,414214	162,450099	182,450099	696433929,9	114,6932	6072146,648
100	-60	89,4	18.416,400	135,7070374	Válido	115,70704	1,414214	163,6344616	183,6344616	716966868,3	114,6932	6251171,546
100	-60	94,5	19.467,000	139,5241915	Válido	119,52419	1,414214	169,0327326	189,0327326	816362880,3	114,6932	7117796,699
100	-60	102,2	21.053,200	145,0972088	Válido	125,09721	1,414214	176,9141693	196,9141693	979603820,3	114,6932	8541080,206
100	-60	106,3	21.897,800	147,9790526	Válido	127,97905	1,414214	180,9897118	200,9897118	1073039117	114,6932	9355734,407
100	-60	107,7	22.186,200	148,9503273	Válido	128,95033	1,414214	182,3633017	202,3633017	1105986399	114,6932	9642998,883
100	-60	112,3	23.133,800	152,0979947	Válido	132,09799	1,414214	186,8147757	206,8147757	1217993278	114,6932	10619577,08
100	-60	113	23.278,000	152,5712948	Válido	132,57129	1,414214	187,4841231	207,4841231	1235543338	114,6932	10772594,52
100	-60	115,5	23.793,000	154,2497974	Válido	134,2498	1,414214	189,8578842	209,8578842	1299315284	114,6932	11328616,56
100	-60	128,1	26.388,600	162,4456832	Válido	142,44568	1,414214	201,4486171	221,4486171	1646861822	114,6932	14358844,49
100	-60	131,1	27.006,600	164,3368492	Válido	144,33685	1,414214	204,1231297	224,1231297	1736076561	114,6932	15136700,01
100	-60	132,7	27.336,200	165,3366263	Válido	145,33663	1,414214	205,537028	225,537028	1784679727	114,6932	15560466,76
100	-60	150,2	30.941,200	175,9011086	Válido	155,90111	1,414214	220,4774621	240,4774621	2362962366	114,6932	20602462,62
100	-60	153,5	31.621,000	177,8229457	Válido	157,82295	1,414214	223,1953502	243,1953502	2481650230	114,6932	21637291,75
100	-60	160,8	33.124,800	182,0021978	Válido	162,0022	1,414214	229,1057052	249,1057052	2755139650	114,6932	24021822,13
100	-60	168,9	34.793,400	186,5298904	Válido	166,52989	1,414214	235,5088295	255,5088295	3076300640	114,6932	26821996,77
100	-60	191,9	39.531,400	198,8250487	Válido	178,82505	1,414214	252,8968092	272,8968092	4090471768	114,6932	35664466,31
100	-60	225,7	46.494,200	215,6251377	Válido	195,62514	1,414214	276,6557228	296,6557228	5858124988	114,6932	51076480,46
100	-60	230	47.380,000	217,6694742	Válido	197,66947	1,414214	279,5468513	299,5468513	6106866407	114,6932	53245235,18
100	-60	241,9	49.831,400	223,2294783	Válido	203,22948	1,414214	287,4098845	307,4098845	6823493794	114,6932	59493446,81
100	-60	265,4	54.672,400	233,8212993	Válido	213,8213	1,414214	302,3889814	322,3889814	8361108288	114,6932	72899773,38
100	-60	282,6	58.215,600	241,2790915	Válido	221,27909	1,414214	312,9358923	332,9358923	9590064104	114,6932	83614931,87
100	-60	415,3	85.551,800	292,4923931	Válido	272,49239	1,414214	385,3624379	405,3624379	22053499959	114,6932	192282541,2
25	-60	38,4	7.910,400	88,9404295	Válido					22588944,53	114,6932	196951,0357
25	-60	46,1	9.496,600	97,45050026	Válido					35982961,89	114,6932	313732,304
25	-60	55	11.330,000	106,4424727	Válido					55835283,59	114,6932	486822,9642
25	-60	63,6	13.101,600	114,4622208	Válido					79621912,89	114,6932	694216,5088
25	-60	64,1	13.204,600	114,9112701	Válido					81146751,92	114,6932	707511,4473
25	-60	77,7	16.006,200	126,5156117	Válido					128722084,2	114,6932	1122316,617
25	-60	78,7	16.212,200	127,3271377	Válido					132689998,7	114,6932	1156912,517
25	-60	87,8	18.086,800	134,4871741	Válido					171801655	114,6932	1497923,635
25	-60	89,1	18.354,600	135,4791497	Válido					177833800,3	114,6932	1550517,383
25	-60	116,3	23.957,800	154,783074	Válido					330020888	114,6932	2877423,317
25	-60	128,7	26.512,200	162,8256737	Válido					416126261,3	114,6932	3628168,551
25	-60	129	26.574,000	163,0153367	Válido					418341020,6	114,6932	3647478,845
25	-60	131,7	27.130,200	164,7124768	Válido					438554837,8	114,6932	3823721,353
25	-60	133,7	27.542,200	165,9584285	Válido					453854572,7	114,6932	3957118,406

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068	
25	-60	133,7	27.542,200	165,9584285	Válido					453854572,7	114,6932	3957118,406	
25	-60	140,7	28.984,200	170,2474669	Válido					509599080,2	114,6932	4443149,901	
25	-60	150,4	30.982,400	176,0181809	Válido					592517033	114,6932	5166104,294	
25	-60	164,6	33.907,600	184,140164	Válido					725871010,5	114,6932	6328805,984	
25	-60	166,1	34.216,600	184,9772959	Válido					740792750,6	114,6932	6458907,334	
25	-60	176	36.256,000	190,4100838	Válido					843298173,6	114,6932	7352643,169	
25	-60	197,6	40.705,600	201,7562886	Válido					1091334248	114,6932	9515248,049	
25	-60	200,2	41.241,200	203,0792949	Válido					1123458215	114,6932	9795334,116	
25	-60	217,1	44.722,600	211,4771855	Censurado					0	114,6932	1,780332804	
25	-60	219,5	45.217,000	212,6428931	Censurado					0	114,6932	1,780332804	
25	-60	234,5	48.307,000	219,7885347	Censurado					0	114,6932	1,780332804	
25	-60	275,9	56.835,400	238,4017617	Censurado					0	114,6932	1,780332804	
25	-60	369,1	76.034,600	275,7437216	Censurado					0	114,6932	1,780332804	
25	-60	373,6	76.961,600	277,4195379	Censurado					0	114,6932	1,780332804	
25	-60	427,1	87.982,600	296,6186103	Censurado					0	114,6932	1,780332804	
25	-60	678,2	139.709,200	373,7769388	Censurado					0	114,6932	1,780332804	
25	-60	687,7	141.666,200	376,3857064	Censurado					0	114,6932	1,780332804	
					T. Válidos	115						Soma dos K0	1105070535
					T. Censurados	11						Somatoria ^{1/4}	182,3255364
										anterior +20	202,3255364		
										Kjc Médio	186,3538194		
											156,3538194		
											2,233625991		
										LN	0,80362627		
										T - T0	42,29485058		
25	-40	61,6	12.689,600	112,6481247	Válido					73679476,71	61,6932	1194288,458	
25	-40	113,2	23.319,200	152,706254	Válido					310145554,3	61,6932	5027224,302	
25	-40	136,6	28.139,600	167,7486215	Válido					476533843,6	61,6932	7724252,326	
25	-40	139,3	28.695,800	169,3983471	Válido					498176423,4	61,6932	8075062,137	
25	-40	155,4	32.012,400	178,9200939	Válido					637845141,6	61,6932	10338986,17	
25	-40	165,5	34.093,000	184,6428986	Válido					734804848,9	61,6932	11910629,52	
25	-40	195,2	40.211,200	200,5273049	Válido					1062115127	61,6932	17216080,97	
25	-40	203,4	41.900,400	204,695872	Censurado					0	61,6932	3,303251011	
25	-40	233,2	48.039,200	219,1784661	Censurado					0	61,6932	3,303251011	
25	-40	251	51.706,000	227,3895336	Censurado					0	61,6932	3,303251011	
25	-40	254,5	52.427,000	228,9694303	Censurado					0	61,6932	3,303251011	
25	-40	264,8	54.548,800	233,5568453	Censurado					0	61,6932	3,303251011	
25	-40	275,9	56.835,400	238,4017617	Censurado					0	61,6932	3,303251011	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
25	-40	283	58.298,000	241,4497877	Censurado					0	61,6932	3,303251011
25	-40	311,7	64.210,200	253,3973165	Censurado					0	61,6932	3,303251011
25	-40	349,2	71.935,200	268,2073824	Censurado					0	61,6932	3,303251011
25	-40	483,2	99.539,200	315,498336	Censurado					0	61,6932	3,303251011
25	-40	548,6	113.011,600	336,1719798	Censurado					0	61,6932	3,303251011
25	-40	562,8	115.936,800	340,4949339	Censurado					0	61,6932	3,303251011
25	-40	619,9	127.699,400	357,3505282	Censurado					0	61,6932	3,303251011
25	-40	758,7	156.292,200	395,3380832	Censurado					0	61,6932	3,303251011
25	-40	773,9	159.423,400	399,2785995	Censurado					0	61,6932	3,303251011
25	-40	1127,9	232.347,400	482,0242732	Censurado					0	61,6932	3,303251011
25	-40	1174	241.844,000	491,7763719	Censurado					0	61,6932	3,303251011
25	-40	1337,1	275.442,600	524,826257	Censurado					0	61,6932	3,303251011
25	-40	1337,2	275.463,200	524,8458821	Censurado					0	61,6932	3,303251011
25	-40	1433,6	295.321,600	543,4350007	Censurado					0	61,6932	3,303251011
25	-40	1544,1	318.084,600	563,9898935	Censurado					0	61,6932	3,303251011
25	-40	1573,3	324.099,800	569,2976374	Censurado					0	61,6932	3,303251011
25	-40	1714,3	353.145,800	594,2607172	Censurado					0	61,6932	3,303251011
50	-40	49,1	10.114,600	100,5713677	Válido	80,571368	1,189207	95,81604373	115,8160437	84285513,88	61,6932	1366204,28
50	-40	50,6	10.423,600	102,0960332	Válido	82,096033	1,189207	97,62918682	117,6291868	90848693,89	61,6932	1472588,452
50	-40	60,6	12.483,600	111,7300318	Válido	91,730032	1,189207	109,0860064	129,0860064	141604211,9	61,6932	2295296,92
50	-40	93,8	19.322,800	139,0064747	Válido	119,00647	1,189207	141,5233464	161,5233464	401155135,9	61,6932	6502420,622
50	-40	107,4	22.124,400	148,7427309	Válido	128,74273	1,189207	153,1017716	173,1017716	549440747,8	61,6932	8906017,97
50	-40	107,5	22.145,000	148,8119619	Válido	128,81196	1,189207	153,1841016	173,1841016	550623541,1	61,6932	8925190,152
50	-40	119	24.514,000	156,5694734	Válido	136,56947	1,189207	162,4093895	182,4093895	695736094,4	61,6932	11277354,63
50	-40	122,7	25.276,200	158,9849049	Válido	138,9849	1,189207	165,2818378	185,2818378	746277818,3	61,6932	12096597,65
50	-40	137,8	28.386,800	168,4838271	Válido	148,48383	1,189207	176,5780237	196,5780237	972179831	61,6932	15758298,01
50	-40	139,9	28.819,400	169,7627757	Válido	149,76278	1,189207	178,0989584	198,0989584	1006110121	61,6932	16308282,29
50	-40	166,5	34.299,000	185,199892	Válido	165,19989	1,189207	196,456887	216,456887	1489597834	61,6932	24145251,56
50	-40	167	34.402,000	185,4777615	Válido	165,47776	1,189207	196,7873313	216,7873313	1499645279	61,6932	24308113,04
50	-40	167	34.402,000	185,4777615	Válido	165,47776	1,189207	196,7873313	216,7873313	1499645279	61,6932	24308113,04
50	-40	168,9	34.793,400	186,5298904	Válido	166,52989	1,189207	198,0385305	218,0385305	1538150320	61,6932	24932250,56
50	-40	187	38.522,000	196,2702219	Válido	176,27022	1,189207	209,621802	229,621802	1930837836	61,6932	31297417,48
50	-40	205,3	42.291,800	205,6497022	Válido	185,6497	1,189207	220,7759467	240,7759467	2375784382	61,6932	38509663,65
50	-40	210	43.260,000	207,9903844	Válido	187,99038	1,189207	223,5595027	243,5595027	2497885571	61,6932	40488831,36
50	-40	212,8	43.836,800	209,3723955	Válido	189,3724	1,189207	225,2030001	245,2030001	2572152343	61,6932	41692639,43
50	-40	217,1	44.722,600	211,4771855	Válido	191,47719	1,189207	227,7060314	247,7060314	2688426309	61,6932	43577352,27
50	-40	219,3	45.175,800	212,545995	Válido	192,546	1,189207	228,9770672	248,9770672	2748957050	61,6932	44558509,68
50	-40	245	50.470,000	224,6552915	Válido	204,65529	1,189207	243,3775288	263,3775288	3508503451	61,6932	56870181,02

specimen	test W, mm	fracture	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
width W, mm	temperature centigrade	resistance Jo, N/mm										
50	-40	251,8	51.870,800	227,7516191	Válido	207,75162	1,189207	247,0597036	267,0597036	3725698132	61,6932	60390742,13
50	-40	271,9	56.011,400	236,667277	Válido	216,66728	1,189207	257,6622674	277,6622674	4407611391	61,6932	71444039,07
50	-40	272,7	56.176,200	237,0151894	Válido	217,01519	1,189207	258,0760073	278,0760073	4435989652	61,6932	71904029,16
50	-40	274,2	56.485,200	237,6661524	Válido	217,66615	1,189207	258,8501371	278,8501371	4489454740	61,6932	72770657,71
50	-40	308,7	63.592,200	252,1749393	Censurado	232,17494	1,189207	276,1040897	296,1040897	0	61,6932	4,67150237
50	-40	308,8	63.612,800	252,2157806	Censurado	232,21578	1,189207	276,1526585	296,1526585	0	61,6932	4,67150237
50	-40	313,1	64.498,600	253,9657457	Censurado	233,96575	1,189207	278,2337295	298,2337295	0	61,6932	4,67150237
50	-40	313,1	64.498,600	253,9657457	Censurado	233,96575	1,189207	278,2337295	298,2337295	0	61,6932	4,67150237
50	-40	349,4	71.976,400	268,2841777	Censurado	248,28418	1,189207	295,2613107	315,2613107	0	61,6932	4,67150237
50	-40	386,6	79.639,600	282,2048901	Censurado	262,20489	1,189207	311,8159209	331,8159209	0	61,6932	4,67150237
50	-40	455,2	93.771,200	306,2208353	Censurado	286,22084	1,189207	340,3758539	360,3758539	0	61,6932	4,67150237
100	-40	40	8.240,000	90,77444574	Válido	70,774446	1,414214	100,090181	120,090181	100361212,4	61,6932	1626779,165
100	-40	63,5	13.081,000	114,3721994	Válido	94,372199	1,414214	133,4624443	153,4624443	317275325,5	61,6932	5142792,487
100	-40	75,5	15.553,000	124,7116675	Válido	104,71167	1,414214	148,0846603	168,0846603	480883962,1	61,6932	7794764,449
100	-40	79,1	16.294,600	127,6503036	Válido	107,6503	1,414214	152,2405193	172,2405193	537181474,1	61,6932	8707304,437
100	-40	81	16.686,000	129,1743008	Válido	109,1743	1,414214	154,3957769	174,3957769	568252910,6	61,6932	9210948,867
100	-40	86,1	17.736,600	133,1788271	Válido	113,17883	1,414214	160,0590323	180,0590323	656327721	61,6932	10638574,77
100	-40	91,5	18.849,000	137,2916603	Válido	117,29166	1,414214	165,8754568	185,8754568	757056909,6	61,6932	12271318,55
100	-40	92,1	18.972,600	137,7410614	Válido	117,74106	1,414214	166,5110059	186,5110059	768726367,4	61,6932	12460471,61
100	-40	94,8	19.528,800	139,7454829	Válido	119,74548	1,414214	169,345686	189,345686	822425468,1	61,6932	13330893,32
100	-40	95,6	19.693,600	140,3338876	Válido	120,33389	1,414214	170,1778158	190,1778158	838709922,8	61,6932	13594851,99
100	-40	96	19.776,000	140,6271666	Válido	120,62717	1,414214	170,5925751	190,5925751	846916315,4	61,6932	13727871,39
100	-40	96,4	19.858,400	140,9198354	Válido	120,91984	1,414214	171,0064711	191,0064711	855165516,5	61,6932	13861584,69
100	-40	99,6	20.517,600	143,2396593	Válido	123,23966	1,414214	174,2871976	194,2871976	922703031,8	61,6932	14956316,61
100	-40	102,6	21.135,600	145,3808791	Válido	125,38088	1,414214	177,3153396	197,3153396	988519482,4	61,6932	16023151,38
100	-40	108,2	22.289,200	149,2956798	Válido	129,29568	1,414214	182,8517039	202,8517039	1117882215	61,6932	18120023,19
100	-40	110,9	22.845,400	151,1469484	Válido	131,14695	1,414214	185,469793	205,469793	1183294237	61,6932	19180302,48
100	-40	112,4	23.154,400	152,1656992	Válido	132,1657	1,414214	186,9105242	206,9105242	1220492239	61,6932	19783253,9
100	-40	124	25.544,000	159,8249042	Válido	139,8249	1,414214	197,7422759	217,7422759	1528967003	61,6932	24783395,96
100	-40	141,2	29.087,200	170,5496995	Válido	150,5497	1,414214	212,9094268	232,9094268	2054847344	61,6932	33307517,58
100	-40	142,5	29.355,000	171,3330091	Válido	151,33301	1,414214	214,0171939	234,0171939	2097947721	61,6932	34006142,02
100	-40	153,4	31.600,400	177,7650134	Válido	157,76501	1,414214	223,1134217	243,1134217	2478008469	61,6932	40166638,61
100	-40	160,5	33.063,000	181,8323404	Válido	161,83234	1,414214	228,8654906	248,8654906	2743602882	61,6932	44471722,69
100	-40	166,8	34.360,800	185,3666637	Válido	165,36666	1,414214	233,8637785	253,8637785	2991244059	61,6932	48485798,42
100	-40	167,8	34.566,800	185,9214888	Válido	165,92149	1,414214	234,6484198	254,6484198	3031590484	61,6932	49139783,38
100	-40	175,4	36.132,400	190,085244	Válido	170,08524	1,414214	240,5368589	260,5368589	3347545905	61,6932	54261181,21
100	-40	186,7	38.460,200	196,1127227	Válido	176,11272	1,414214	249,0610009	269,0610009	3847892376	61,6932	62371418,18
100	-40	187,7	38.666,200	196,6372294	Válido	176,63723	1,414214	249,8027655	269,8027655	3893937423	61,6932	63117773,49

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068	
100	-40	214,1	44.104,600	210,0109521	Válido	190,01095	1,414214	268,7160655	288,7160655	5214042031	61,6932	84515668,35	
100	-40	272,3	56.093,800	236,8412971	Válido	216,8413	1,414214	306,6599032	326,6599032	8843577316	61,6932	143347683,6	
100	-40	282,2	58.133,200	241,1082744	Válido	221,10827	1,414214	312,6943205	332,6943205	9560486057	61,6932	154968230,8	
					Válidos	62						Somatoria	1864966832
					Censurados	30						Somatoria ^{1/4}	207,8106392
										K0	227,8106392		
										Kjc Médio	209,6064272		
											179,6064272		
											2,565806102		
										Ln	0,942272699		
										T-T0	49,59181216		
25	-20	78,9	16.253,400	127,488823	Válido					133491382,3	51,6932	2582377,998	
25	-20	102,7	21.156,200	145,4517102	Válido					247688786	51,6932	4791515,828	
25	-20	258,8	53.312,800	230,8956474	Censurado					0	51,6932	3,827163298	
25	-20	723,7	149.082,200	386,1116419	Censurado					0	51,6932	3,827163298	
25	-20	772,5	159.135,000	398,9172847	Censurado					0	51,6932	3,827163298	
25	-20	798,3	164.449,800	405,5241053	Censurado					0	51,6932	3,827163298	
25	-20	914,9	188.469,400	434,1306255	Censurado					0	51,6932	3,827163298	
25	-20	1133,7	233.542,200	483,2620407	Censurado					0	51,6932	3,827163298	
25	-20	1340	276.040,000	525,3950894	Censurado					0	51,6932	3,827163298	
25	-20	1348,6	277.811,600	527,0783623	Censurado					0	51,6932	3,827163298	
25	-20	1361,1	280.386,600	529,5154389	Censurado					0	51,6932	3,827163298	
25	-20	1368,5	281.911,000	530,9529169	Censurado					0	51,6932	3,827163298	
25	-20	1368,6	281.931,600	530,9723157	Censurado					0	51,6932	3,827163298	
25	-20	1371,1	282.446,600	531,4570538	Censurado					0	51,6932	3,827163298	
25	-20	1381,3	284.547,800	533,4302204	Censurado					0	51,6932	3,827163298	
25	-20	1391	286.546,000	535,2999159	Censurado					0	51,6932	3,827163298	
25	-20	1408,2	290.089,200	538,5992945	Censurado					0	51,6932	3,827163298	
25	-20	1436,3	295.877,800	543,9465047	Censurado					0	51,6932	3,827163298	
25	-20	1459,7	300.698,200	548,3595536	Censurado					0	51,6932	3,827163298	
25	-20	1472,5	303.335,000	550,7585678	Censurado					0	51,6932	3,827163298	
25	-20	1473,7	303.582,200	550,9829398	Censurado					0	51,6932	3,827163298	
25	-20	1480,1	304.900,600	552,178051	Censurado					0	51,6932	3,827163298	
25	-20	1496,6	308.299,600	555,2473323	Censurado					0	51,6932	3,827163298	
25	-20	1497,2	308.423,200	555,3586229	Censurado					0	51,6932	3,827163298	
25	-20	1499	308.794,000	555,6923609	Censurado					0	51,6932	3,827163298	
25	-20	1524,5	314.047,000	560,398965	Censurado					0	51,6932	3,827163298	
25	-20	1547,8	318.846,800	564,6652105	Censurado					0	51,6932	3,827163298	
25	-20	1553,3	319.979,800	565,6675702	Censurado					0	51,6932	3,827163298	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
25	-20	1554,5	320.227,000	565,8860309	Censurado					0	51,6932	3,827163298
25	-20	1560,5	321.463,000	566,9770718	Censurado					0	51,6932	3,827163298
25	-20	1575	324.450,000	569,6051264	Censurado					0	51,6932	3,827163298
50	-20	139	28.634,000	169,2158385	Válido	149,21584	1,189207	177,4485368	197,4485368	991493087,2	51,6932	19180338,75
50	-20	162	33.372,000	182,6800482	Válido	162,68005	1,189207	193,4602708	213,4602708	1400771074	51,6932	27097782,19
50	-20	168,1	34.628,600	186,0876138	Válido	166,08761	1,189207	197,512572	217,512572	1521874982	51,6932	29440525,68
50	-20	180,6	37.203,600	192,8823476	Válido	172,88235	1,189207	205,5929178	225,5929178	1786621683	51,6932	34562025,23
50	-20	195,2	40.211,200	200,5273049	Válido	180,5273	1,189207	214,6843554	234,6843554	2124230253	51,6932	41093030,68
50	-20	256	52.736,000	229,6432015	Válido	209,6432	1,189207	249,3091868	269,3091868	3863252807	51,6932	74734255,32
50	-20	259	53.354,000	230,984848	Válido	210,98485	1,189207	250,9046824	270,9046824	3963100309	51,6932	76665795,68
50	-20	291	59.946,000	244,8387224	Censurado	224,83872	1,189207	267,3798084	287,3798084	0	51,6932	5,412426199
50	-20	326,5	67.259,000	259,3434017	Censurado	239,3434	1,189207	284,6288762	304,6288762	0	51,6932	5,412426199
50	-20	328,8	67.732,800	260,2552593	Censurado	240,25526	1,189207	285,7132638	305,7132638	0	51,6932	5,412426199
50	-20	330	67.980,000	260,7297451	Censurado	240,72975	1,189207	286,2775257	306,2775257	0	51,6932	5,412426199
50	-20	362,3	74.633,800	273,191874	Censurado	253,19187	1,189207	301,097578	321,097578	0	51,6932	5,412426199
50	-20	380	78.280,000	279,7856322	Censurado	259,78563	1,189207	308,9389222	328,9389222	0	51,6932	5,412426199
50	-20	392	80.752,000	284,1689638	Censurado	264,16896	1,189207	314,1516113	334,1516113	0	51,6932	5,412426199
50	-20	417	85.902,000	293,0904297	Censurado	273,09043	1,189207	324,7610821	344,7610821	0	51,6932	5,412426199
50	-20	447	92.082,000	303,4501607	Censurado	283,45016	1,189207	337,0809478	357,0809478	0	51,6932	5,412426199
50	-20	480	98.880,000	314,4519041	Censurado	294,4519	1,189207	350,1642994	370,1642994	0	51,6932	5,412426199
50	-20	486,8	100.280,800	316,6714386	Censurado	296,67144	1,189207	352,8037856	372,8037856	0	51,6932	5,412426199
50	-20	502	103.412,000	321,5773624	Censurado	301,57736	1,189207	358,6379451	378,6379451	0	51,6932	5,412426199
50	-20	512	105.472,000	324,7645301	Censurado	304,76453	1,189207	362,4281476	382,4281476	0	51,6932	5,412426199
50	-20	555	114.330,000	338,127195	Censurado	318,1272	1,189207	378,3191238	398,3191238	0	51,6932	5,412426199
50	-20	648,8	133.652,800	365,5855577	Censurado	345,58556	1,189207	410,9728041	430,9728041	0	51,6932	5,412426199
50	-20	655,6	135.053,600	367,4963945	Censurado	347,49639	1,189207	413,2451848	433,2451848	0	51,6932	5,412426199
50	-20	695	143.170,000	378,3781178	Censurado	358,37812	1,189207	426,1858075	446,1858075	0	51,6932	5,412426199
50	-20	807	166.242,000	407,7278504	Censurado	387,72785	1,189207	461,0887184	481,0887184	0	51,6932	5,412426199
50	-20	820	168.920,000	410,9987835	Censurado	390,99878	1,189207	464,9785352	484,9785352	0	51,6932	5,412426199
50	-20	1017	209.502,000	457,7138844	Censurado	437,71388	1,189207	520,5324657	540,5324657	0	51,6932	5,412426199
50	-20	1266	260.796,000	510,6818971	Censurado	490,6819	1,189207	583,5224032	603,5224032	0	51,6932	5,412426199
50	-20	1582	325.892,000	570,8695122	Censurado	550,86951	1,189207	655,0979434	675,0979434	0	51,6932	5,412426199
50	-20	1619	333.514,000	577,5067099	Censurado	557,50671	1,189207	662,9909461	682,9909461	0	51,6932	5,412426199
100	-20	58,6	12.071,600	109,8708333	Válido	89,870833	1,414214	127,0965513	147,0965513	260936639,4	51,6932	5047794,282
100	-20	74,4	15.326,400	123,7998384	Válido	103,79984	1,414214	146,7951393	166,7951393	464351338,4	51,6932	8982832,141
100	-20	82,8	17.056,800	130,6016845	Válido	110,60168	1,414214	156,4144023	176,4144023	598558989,3	51,6932	11579066,29
100	-20	100,6	20.723,600	143,956938	Válido	123,95694	1,414214	175,3015829	195,3015829	944372539,6	51,6932	18268796,28

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
100	-20	112,2	23.113,200	152,0302601	Válido	132,03026	1,414214	186,7189845	206,7189845	1215497045	51,6932	23513673,85
100	-20	123,7	25.482,200	159,6314505	Válido	139,63145	1,414214	197,4686911	217,4686911	1520522986	51,6932	29414371,45
100	-20	130,8	26.944,800	164,1487131	Válido	144,14871	1,414214	203,857065	223,857065	1727042675	51,6932	33409475,04
100	-20	133,4	27.480,400	165,7721328	Válido	145,77213	1,414214	206,1529272	226,1529272	1806167498	51,6932	34940137,16
100	-20	186,1	38.336,600	195,7973442	Válido	175,79734	1,414214	248,6149884	268,6149884	3820403469	51,6932	73905338,98
100	-20	188,4	38.810,400	197,0035533	Válido	177,00355	1,414214	250,3208256	270,3208256	3926340233	51,6932	75954675,52
100	-20	191,7	39.490,200	198,721413	Válido	178,72141	1,414214	252,7502462	272,7502462	4080997693	51,6932	78946509,27
100	-20	193	39.758,000	199,3940822	Válido	179,39408	1,414214	253,701544	273,701544	4142785440	51,6932	80141787,31
100	-20	212,3	43.733,800	209,1262776	Válido	189,12628	1,414214	267,4649468	287,4649468	5117613590	51,6932	98999744,45
100	-20	212,5	43.775,000	209,2247595	Válido	189,22476	1,414214	267,6042213	287,6042213	5128281299	51,6932	99206110,27
100	-20	223	45.938,000	214,3315189	Válido	194,33152	1,414214	274,8262696	294,8262696	5704702120	51,6932	110356915,8
100	-20	224,4	46.226,400	215,0032558	Válido	195,00326	1,414214	275,776249	295,776249	5783988770	51,6932	111890708,4
100	-20	231,2	47.627,200	218,2365689	Válido	198,23657	1,414214	280,3488443	300,3488443	6177248610	51,6932	119498282,4
100	-20	247,3	50.943,800	225,7073326	Válido	205,70733	1,414214	290,9140997	310,9140997	7162408427	51,6932	138556104,6
100	-20	288,5	59.431,000	243,7847411	Válido	223,78474	1,414214	316,4794159	336,4794159	10031869493	51,6932	194065553,9
100	-20	299,8	61.758,800	248,5131787	Válido	228,51318	1,414214	323,1664365	343,1664365	10906992078	51,6932	210994716,5
100	-20	301,3	62.067,800	249,1341004	Válido	229,1341	1,414214	324,0445524	344,0445524	11026023136	51,6932	213297360,9
100	-20	315,9	65.075,400	255,0988044	Válido	235,0988	1,414214	332,4799177	352,4799177	12219731778	51,6932	236389540,2
100	-20	318,2	65.549,200	256,02578	Válido	236,02578	1,414214	333,7908591	353,7908591	12413600285	51,6932	240139907,9
100	-20	324,6	66.867,600	258,5877027	Válido	238,5877	1,414214	337,413965	357,413965	12961408950	51,6932	250737214
100	-20	334,9	68.989,400	262,6583332	Válido	242,65833	1,414214	343,1707058	363,1707058	13868862163	51,6932	268291809,4
100	-20	371,9	76.611,400	276,7876442	Válido	256,78764	1,414214	363,1525691	383,1525691	17392278605	51,6932	336451962,8
100	-20	373,5	76.941,000	277,3824075	Válido	257,38241	1,414214	363,9936914	383,9936914	17553973034	51,6932	339579926,1
100	-20	384,1	79.124,600	281,2909526	Válido	261,29095	1,414214	369,5212089	389,5212089	18644789305	51,6932	360681662,3
100	-20	588,7	121.272,200	348,2415828	Censurado	328,24158	1,414214	464,2036981	484,2036981	0	51,6932	7,654326681
100	-20	683,1	140.718,600	375,1247792	Censurado	355,12478	1,414214	502,2222791	522,2222791	0	51,6932	7,654326681
200	-20	112	23.072,000	151,8947004	Válido	131,8947	1,681793	221,8195615	241,8195615	2421025531	51,6932	46834506,89
200	-20	117	24.102,000	155,2481884	Válido	135,24819	1,681793	227,4594336	247,4594336	2676799320	51,6932	51782426,32
200	-20	125	25.750,000	160,4680654	Válido	140,46807	1,681793	236,2381852	256,2381852	3114586458	51,6932	60251376,55
200	-20	162	33.372,000	182,6800482	Válido	162,68005	1,681793	273,5941387	293,5941387	5603084296	51,6932	108391128,7
200	-20	162	33.372,000	182,6800482	Válido	162,68005	1,681793	273,5941387	293,5941387	5603084296	51,6932	108391128,7
200	-20	166	34.196,000	184,921605	Válido	164,92161	1,681793	277,3639729	297,3639729	5918343906	51,6932	114489795,7
200	-20	168	34.608,000	186,0322553	Válido	166,03226	1,681793	279,2318565	299,2318565	6079387909	51,6932	117605176,5
200	-20	175	36.050,000	189,8683755	Válido	169,86838	1,681793	285,683416	305,683416	6661010537	51,6932	128856610,5
200	-20	179	36.874,000	192,0260399	Válido	172,02604	1,681793	289,3121606	309,3121606	7005945497	51,6932	135529344,2
200	-20	179	36.874,000	192,0260399	Válido	172,02604	1,681793	289,3121606	309,3121606	7005945497	51,6932	135529344,2
200	-20	187	38.522,000	196,2702219	Válido	176,27022	1,681793	296,4499954	316,4499954	7723351343	51,6932	149407491,6
200	-20	199	40.994,000	202,4697508	Válido	182,46975	1,681793	306,8763187	326,8763187	8868568054	51,6932	171561599,1

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068	
200	-20	234	48.204,000	219,5540936	Válido	199,55409	1,681793	335,6086439	355,6086439	12686229143	51,6932	245413887	
200	-20	236	48.616,000	220,4903626	Válido	200,49036	1,681793	337,1832544	357,1832544	12925995256	51,6932	250052139,5	
200	-20	239	49.234,000	221,8873588	Válido	201,88736	1,681793	339,5327126	359,5327126	13290046261	51,6932	257094671,3	
					Válidos	52						Somatoria	6194580502
					Censurados	54						Somatoria ^{1/4}	280,5452858
										K0	300,5452858		
										Kjc Médio	275,9695187		
											245,9695187		
											3,513850268		
										Ln	1,256712379		
										T-T0	66,14077249		

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
25	-91	19,9	4.099,400	64,03	Válido					3757153,118	109,6932	34251,4679
25	-91	21,3	4.387,800	66,24	Válido					4571818,671	109,6932	41678,2323
25	-91	23,1	4.758,600	68,98	Válido					5756620,047	109,6932	52479,279
25	-91	23,7	4.882,200	69,87	Válido					6186613,242	109,6932	56399,24118
25	-91	29,1	5.994,600	77,42	Válido					10874217,93	109,6932	99133,01767
25	-91	29,4	6.056,400	77,82	Válido					11178891,73	109,6932	101910,5262
25	-91	38,6	7.951,600	89,17	Válido					22893643,32	109,6932	208706,1305
25	-91	39,7	8.178,200	90,43	Válido					24610171,27	109,6932	224354,575
25	-91	42,3	8.713,800	93,35	Válido					28943222,01	109,6932	263856,1188
25	-91	46,3	9.537,800	97,66	Válido					36376984,58	109,6932	331624,7915
25	-91	47,3	9.743,800	98,71	Válido					38382639,98	109,6932	349909,0188
25	-91	48,9	10.073,400	100,37	Válido					41715410,74	109,6932	380291,6747
25	-91	51,4	10.588,400	102,90	Válido					47229908,47	109,6932	430563,6856
25	-91	52	10.712,000	103,50	Válido					48609457,63	109,6932	443140,1183
25	-91	55,9	11.515,400	107,31	Válido					58110231,58	109,6932	529752,36
25	-91	56,6	11.659,600	107,98	Válido					59914022,7	109,6932	546196,3248
25	-91	59,4	12.236,400	110,62	Válido					67431515,97	109,6932	614728,3147
25	-91	63,3	13.039,800	114,19	Válido					78714553,27	109,6932	717588,2668
25	-91	68,5	14.111,000	118,79	Válido					95246099,01	109,6932	868295,3821
25	-91	70,2	14.461,200	120,25	Válido					101022818,4	109,6932	920957,8934
25	-91	70,6	14.543,600	120,60	Válido					102408855,1	109,6932	933593,4688
25	-91	71,4	14.708,400	121,28	Válido					105211635	109,6932	959144,55
25	-91	76	15.656,000	125,12	Válido					122125539,4	109,6932	1113337,376
25	-91	76,5	15.759,000	125,53	Válido					124046262,3	109,6932	1130847,33
25	-91	76,6	15.779,600	125,62	Válido					124432349,2	109,6932	1134367,027
25	-91	76,8	15.820,800	125,78	Válido					125206466,4	109,6932	1141424,139
25	-91	77	15.862,000	125,94	Válido					125983175,5	109,6932	1148504,88
25	-91	77,2	15.903,200	126,11	Válido					126762477,6	109,6932	1155609,26
25	-91	93,9	19.343,400	139,08	Válido					201077445,6	109,6932	1833089,431
25	-91	112,8	23.236,800	152,44	Válido					307628845,9	109,6932	2804447,731
25	-91	124,3	25.605,800	160,02	Válido					384358967,4	109,6932	3503945,252
50	-91	14,9	3.069,400	55,40	Válido	35,40	1,189207	42,10	62,10	3141588,752	109,6932	28639,77669
50	-91	18,3	3.769,800	61,40	Válido	41,40	1,189207	49,23	69,23	5874578,163	109,6932	53554,62475
50	-91	18,8	3.872,800	62,23	Válido	42,23	1,189207	50,22	70,22	6361937,218	109,6932	57997,55334
50	-91	20,2	4.161,200	64,51	Válido	44,51	1,189207	52,93	72,93	7847972,75	109,6932	71544,75163
50	-91	22,4	4.614,400	67,93	Válido	47,93	1,189207	57,00	77,00	10554485,37	109,6932	96218,22837
50	-91	24,6	5.067,600	71,19	Válido	51,19	1,189207	60,87	80,87	13730025,15	109,6932	125167,514
50	-91	27,7	5.706,200	75,54	Válido	55,54	1,189207	66,05	86,05	19029813,55	109,6932	173482,1626
50	-91	30,2	6.221,200	78,87	Válido	58,87	1,189207	70,01	90,01	24029315,59	109,6932	219059,2999
50	-91	30,4	6.262,400	79,14	Válido	59,14	1,189207	70,32	90,32	24457834,96	109,6932	222965,8262

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
50	-91	30,6	6.303,600	79,40	Válido	59,40	1,189207	70,63	90,63	24890624,91	109,6932	226911,2845
50	-91	31,7	6.530,200	80,81	Válido	60,81	1,189207	72,32	92,32	27347655,05	109,6932	249310,3952
50	-91	34,3	7.065,800	84,06	Válido	64,06	1,189207	76,18	96,18	33676890,66	109,6932	307009,8298
50	-91	41,5	8.549,000	92,46	Válido	72,46	1,189207	86,17	106,17	55136926,54	109,6932	502646,7141
50	-91	41,6	8.569,600	92,57	Válido	72,57	1,189207	86,30	106,30	55476566,17	109,6932	505742,9829
50	-91	45,3	9.331,800	96,60	Válido	76,60	1,189207	91,09	111,09	68860987,42	109,6932	627759,8559
50	-91	46,1	9.496,600	97,45	Válido	77,45	1,189207	92,10	112,10	71965923,79	109,6932	656065,4971
50	-91	46,5	9.579,000	97,87	Válido	77,87	1,189207	92,61	112,61	73546747,77	109,6932	670476,8187
50	-91	47,3	9.743,800	98,71	Válido	78,71	1,189207	93,60	113,60	76765279,96	109,6932	699818,0376
50	-91	48,7	10.032,200	100,16	Válido	80,16	1,189207	95,33	115,33	82580916,19	109,6932	752835,3279
50	-91	52,7	10.856,200	104,19	Válido	84,19	1,189207	100,12	120,12	100492995,4	109,6932	916127,849
50	-91	54,6	11.247,600	106,05	Válido	86,05	1,189207	102,34	122,34	109680250,4	109,6932	999881,947
50	-91	55,6	11.453,600	107,02	Válido	87,02	1,189207	103,49	123,49	114692790,5	109,6932	1045577,944
50	-91	57,4	11.824,400	108,74	Válido	88,74	1,189207	105,53	125,53	124024878,2	109,6932	1130652,385
50	-91	58,7	12.092,200	109,96	Válido	89,96	1,189207	106,99	126,99	131013317,9	109,6932	1194361,346
50	-91	59,1	12.174,600	110,34	Válido	90,34	1,189207	107,43	127,43	133205709,4	109,6932	1214347,921
50	-91	67	13.802,000	117,48	Válido	97,48	1,189207	115,93	135,93	180603506,3	109,6932	1646442,134
50	-91	75,7	15.594,200	124,88	Válido	104,88	1,189207	124,72	144,72	241961740,5	109,6932	2205804,375
50	-91	76,2	15.697,200	125,29	Válido	105,29	1,189207	125,21	145,21	245783773,5	109,6932	2240647,31
50	-91	78,6	16.191,600	127,25	Válido	107,25	1,189207	127,54	147,54	264580565	109,6932	2412005,165
50	-91	81	16.686,000	129,17	Válido	109,17	1,189207	129,83	149,83	284126455,3	109,6932	2590192,057
50	-91	86	17.716,000	133,10	Válido	113,10	1,189207	134,50	154,50	327267529,4	109,6932	2983480,557
50	-91	86,5	17.819,000	133,49	Válido	113,49	1,189207	134,96	154,96	331762366,3	109,6932	3024456,997
50	-91	100,5	20.703,000	143,89	Válido	123,89	1,189207	147,33	167,33	471096740,4	109,6932	4294675,881
50	-91	117,8	24.266,800	155,78	Válido	135,78	1,189207	161,47	181,47	679748454,8	109,6932	6196814,887
100	-91	19,6	4.037,600	63,54	Válido	43,54	1,414214	61,58	81,58	14377982,62	109,6932	131074,5117
100	-91	19,7	4.058,200	63,70	Válido	43,70	1,414214	61,81	81,81	14593009,36	109,6932	133034,7676
100	-91	21,6	4.449,600	66,71	Válido	46,71	1,414214	66,05	86,05	19033798,98	109,6932	173518,495
100	-91	23,3	4.799,800	69,28	Válido	49,28	1,414214	69,69	89,69	23591934,17	109,6932	215071,9841
100	-91	25,4	5.232,400	72,34	Válido	52,34	1,414214	74,01	94,01	30008194,56	109,6932	273564,7657
100	-91	25,9	5.335,400	73,04	Válido	53,04	1,414214	75,02	95,02	31666440,05	109,6932	288681,8877
100	-91	27,7	5.706,200	75,54	Válido	55,54	1,414214	78,54	98,54	38059627,11	109,6932	346964,3251
100	-91	29,5	6.077,000	77,96	Válido	57,96	1,414214	81,96	101,96	45126025,84	109,6932	411383,9859
100	-91	32	6.592,000	81,19	Válido	61,19	1,414214	86,54	106,54	56080768,45	109,6932	511251,0935
100	-91	32,1	6.612,600	81,32	Válido	61,32	1,414214	86,72	106,72	56546917,14	109,6932	515500,6613
100	-91	32,9	6.777,400	82,32	Válido	62,32	1,414214	88,14	108,14	60354295,91	109,6932	550210,003
100	-91	33	6.798,000	82,45	Válido	62,45	1,414214	88,32	108,32	60840018,92	109,6932	554638,0169
100	-91	33,4	6.880,400	82,95	Válido	62,95	1,414214	89,02	109,02	62804767,08	109,6932	572549,3201
100	-91	35,8	7.374,800	85,88	Válido	65,88	1,414214	93,16	113,16	75333156,8	109,6932	686762,3226
100	-91	35,9	7.395,400	86,00	Válido	66,00	1,414214	93,33	113,33	75882898,66	109,6932	691773,9537

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
100	-91	37,6	7.745,600	88,01	Válido	68,01	1,414214	96,18	116,18	85571246,37	109,6932	780096,1807
100	-91	39,6	8.157,600	90,32	Válido	70,32	1,414214	99,45	119,45	97805085,15	109,6932	891623,958
100	-91	40,1	8.260,600	90,89	Válido	70,89	1,414214	100,25	120,25	101005968,5	109,6932	920804,2844
100	-91	40,6	8.363,600	91,45	Válido	71,45	1,414214	101,05	121,05	104264161,5	109,6932	950507,0645
100	-91	41,1	8.466,600	92,01	Válido	72,01	1,414214	101,84	121,84	107579828,9	109,6932	980733,8
100	-91	41,3	8.507,800	92,24	Válido	72,24	1,414214	102,16	122,16	108922225	109,6932	992971,5329
100	-91	41,3	8.507,800	92,24	Válido	72,24	1,414214	102,16	122,16	108922225	109,6932	992971,5329
100	-91	42,3	8.713,800	93,35	Válido	73,35	1,414214	103,73	123,73	115772888,1	109,6932	1055424,475
100	-91	42,7	8.796,200	93,79	Válido	73,79	1,414214	104,35	124,35	118578058,5	109,6932	1080997,35
100	-91	45,6	9.393,600	96,92	Válido	76,92	1,414214	108,78	128,78	140032979,4	109,6932	1276587,604
100	-91	46,6	9.599,600	97,98	Válido	77,98	1,414214	110,28	130,28	147889826,7	109,6932	1348213,26
100	-91	47,6	9.805,600	99,02	Válido	79,02	1,414214	111,76	131,76	155983654,4	109,6932	1421999,307
100	-91	49,2	10.135,200	100,67	Válido	80,67	1,414214	114,09	134,09	169429313	109,6932	1544574,44
100	-91	53,7	11.062,200	105,18	Válido	85,18	1,414214	120,46	140,46	210547079,5	109,6932	1919417,79
100	-91	126,4	26.038,400	161,36	Válido	141,36	1,414214	199,92	219,92	1597414266	109,6932	14562564,18
200	-91	13,8	2.842,800	53,32	Válido	33,32	1,681793	56,03	76,03	9858281,639	109,6932	89871,40168
200	-91	20,4	4.202,400	64,83	Válido	44,83	1,681793	75,39	95,39	32300322,8	109,6932	294460,5755
200	-91	23	4.738,000	68,83	Válido	48,83	1,681793	82,13	102,13	45493388,84	109,6932	414732,9902
200	-91	23,2	4.779,200	69,13	Válido	49,13	1,681793	82,63	102,63	46616451,6	109,6932	424971,207
200	-91	25,4	5.232,400	72,34	Válido	52,34	1,681793	88,02	108,02	60016389,12	109,6932	547129,5314
200	-91	25,6	5.273,600	72,62	Válido	52,62	1,681793	88,50	108,50	61330813,25	109,6932	559112,2627
200	-91	25,8	5.314,800	72,90	Válido	52,90	1,681793	88,97	108,97	62661460,34	109,6932	571242,8878
200	-91	30,2	6.221,200	78,87	Válido	58,87	1,681793	99,01	119,01	96117262,38	109,6932	876237,1996
200	-91	33,9	6.983,400	83,57	Válido	63,57	1,681793	106,91	126,91	130620017,9	109,6932	1190775,89
200	-91	36,9	7.601,400	87,19	Válido	67,19	1,681793	112,99	132,99	163006655,8	109,6932	1486023,343
200	-91	38,8	7.992,800	89,40	Válido	69,40	1,681793	116,72	136,72	185604911,9	109,6932	1692036,625
200	-91	40,9	8.425,400	91,79	Válido	71,79	1,681793	120,74	140,74	212493309,2	109,6932	1937160,272
200	-91	44,6	9.187,600	95,85	Válido	75,85	1,681793	127,57	147,57	264824052,5	109,6932	2414224,879
200	-91	44,8	9.228,800	96,07	Válido	76,07	1,681793	127,93	147,93	267834797,3	109,6932	2441671,838
200	-91	50,7	10.444,200	102,20	Válido	82,20	1,681793	138,24	158,24	365183446,7	109,6932	3329134,775
Total de Válidos					110						Soma dos K0	119461054,6
											Somatoria^{1/4}	104,545799
											anterior +20	124,545799
											Kjc Médio	115,387587
												85,38758701
												1,219822672
											Ln	0,198705497
											T - T0	10,45787031
25	-60	34	7.004,000	83,68990381	Válido					16454412,17	108,6932	151384,0072

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
25	-60	40,2	8.281,200	91,00109889	Válido					25413254,26	108,6932	233807,2139
25	-60	46,9	9.661,400	98,29242087	Válido					37573260,89	108,6932	345681,7988
25	-60	52	10.712,000	103,4987923	Válido					48609457,63	108,6932	447217,0994
25	-60	54,2	11.165,200	105,66551	Válido					53854750,56	108,6932	495474,883
25	-60	56,1	11.556,600	107,5016279	Válido					58622526,43	108,6932	539339,4107
25	-60	62,3	12.833,800	113,2863628	Válido					75730816,98	108,6932	696739,2347
25	-60	67,4	13.884,400	117,8320839	Válido					91606273,8	108,6932	842796,7325
25	-60	68	14.008,000	118,355397	Válido					93582099,2	108,6932	860974,7362
25	-60	69	14.214,000	119,2224811	Válido					96926008,89	108,6932	891739,3995
25	-60	74,6	15.367,600	123,9661244	Válido					116833508,7	108,6932	1074892,53
25	-60	78,2	16.109,200	126,9220233	Válido					130697919,3	108,6932	1202447,984
25	-60	81,3	16.747,800	129,4132914	Válido					143311265,7	108,6932	1318493,39
25	-60	81,4	16.768,400	129,4928569	Válido					143728585,3	108,6932	1322332,817
25	-60	82,3	16.953,800	130,2067587	Válido					147513890,6	108,6932	1357158,411
25	-60	90	18.540,000	136,1616686	Válido					182075439,7	108,6932	1675131,836
25	-60	90,4	18.622,400	136,4639146	Válido					183977848,2	108,6932	1692634,389
25	-60	100,3	20.661,800	143,7421302	Válido					234460859,4	108,6932	2157088,57
25	-60	112,2	23.113,200	152,0302601	Válido					303874261,2	108,6932	2795706,274
25	-60	120,3	24.781,800	157,4223618	Válido					356639656,8	108,6932	3281158,865
25	-60	123,4	25.420,400	159,4377622	Válido					378025952,7	108,6932	3477917,226
25	-60	127,4	26.244,400	162,0012346	Válido					406601035,8	108,6932	3740813,922
25	-60	129	26.574,000	163,0153367	Válido					418341020,6	108,6932	3848824,219
25	-60	140,9	29.025,400	170,3684243	Válido					511242082,6	108,6932	4703533,271
25	-60	141,9	29.231,400	170,9719275	Válido					519499100,1	108,6932	4779499,547
25	-60	142,5	29.355,000	171,3330091	Válido					524486930,2	108,6932	4825388,619
25	-60	143,1	29.478,600	171,6933313	Válido					529499988,6	108,6932	4871509,796
25	-60	191,8	39.510,800	198,7732376	Censurado					0	108,6932	1,714927902
25	-60	193,2	39.799,200	199,4973684	Censurado					0	108,6932	1,714927902
25	-60	261	53.766,000	231,8749663	Censurado					0	108,6932	1,714927902
25	-60	284,9	58.689,400	242,2589524	Censurado					0	108,6932	1,714927902
50	-60	46,7	9.620,200	98,08261824	Válido	78,082618	1,189207	92,85640516	112,8564052	74344263,88	108,6932	683982,6583
50	-60	48	9.888,000	99,43842316	Válido	79,438423	1,189207	94,46873802	114,468738	79643888,41	108,6932	732740,304
50	-60	49,9	10.279,400	101,3873759	Válido	81,387376	1,189207	96,78644654	116,7864465	87752233,9	108,6932	807338,7655
50	-60	52,9	10.897,400	104,3906126	Válido	84,390613	1,189207	100,3579169	120,3579169	101439372,4	108,6932	933263,2807
50	-60	59,4	12.236,400	110,6182625	Válido	90,618263	1,189207	107,7638825	127,7638825	134863031,9	108,6932	1240767,886
50	-60	63,1	12.998,600	114,0114029	Válido	94,011403	1,189207	111,7990293	131,7990293	156225574,6	108,6932	1437307,712
50	-60	68,1	14.028,600	118,4423911	Válido	98,442391	1,189207	117,0683919	137,0683919	187827254,5	108,6932	1728049,727
50	-60	68,2	14.049,200	118,5293213	Válido	98,529321	1,189207	117,1717699	137,1717699	188491582,3	108,6932	1734161,68
50	-60	69,2	14.255,200	119,3951423	Válido	99,395142	1,189207	118,2014104	138,2014104	195204863,8	108,6932	1795925,263
50	-60	75,1	15.470,600	124,3808667	Válido	104,38087	1,189207	124,1304693	144,1304693	237417971,4	108,6932	2184294,615

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
50	-60	76,2	15.697,200	125,2884671	Válido	105,28847	1,189207	125,2097943	145,2097943	245783773,5	108,6932	2261261,731
50	-60	76,5	15.759,000	125,5348557	Válido	105,53486	1,189207	125,5028013	145,5028013	248092524,6	108,6932	2282502,72
50	-60	80,6	16.603,600	128,8549572	Válido	108,85496	1,189207	129,4510896	149,4510896	280816641,8	108,6932	2583571,39
50	-60	81,9	16.871,400	129,8899534	Válido	109,88995	1,189207	130,6819145	150,6819145	291649981,3	108,6932	2683240,362
50	-60	82,9	17.077,400	130,6805265	Válido	110,68053	1,189207	131,6220696	151,6220696	300133768,2	108,6932	2761292,962
50	-60	86,1	17.736,600	133,1788271	Válido	113,17883	1,189207	134,5930665	154,5930665	328163860,5	108,6932	3019175,629
50	-60	86,2	17.757,200	133,2561443	Válido	113,25614	1,189207	134,6850126	154,6850126	329061509,5	108,6932	3027434,186
50	-60	94,4	19.446,400	139,4503496	Válido	119,45035	1,189207	142,0512056	162,0512056	407173679	108,6932	3746082,359
50	-60	95,1	19.590,600	139,9664245	Válido	119,96642	1,189207	142,6649256	162,6649256	414256047,7	108,6932	3811241,62
50	-60	96,8	19.940,800	141,2118975	Válido	121,2119	1,189207	144,1460509	164,1460509	431728774,9	108,6932	3971994,337
50	-60	97	19.982,000	141,3577023	Válido	121,3577	1,189207	144,319443	164,319443	433809817,9	108,6932	3991140,365
50	-60	98,6	20.311,600	142,5187707	Válido	122,51877	1,189207	145,7001938	165,7001938	450651185,7	108,6932	4146084,445
50	-60	109,7	22.598,200	150,326977	Válido	130,32698	1,189207	154,9857683	174,9857683	576988665,5	108,6932	5308415,48
50	-60	112,9	23.257,400	152,5037704	Válido	132,50377	1,189207	157,5744266	177,5744266	616513997,7	108,6932	5672056,74
50	-60	127,4	26.244,400	162,0012346	Válido	142,00123	1,189207	168,8688785	188,8688785	813202071,6	108,6932	7481627,845
50	-60	129,1	26.594,600	163,0785087	Válido	143,07851	1,189207	170,1499806	190,1499806	838161320,6	108,6932	7711258,115
50	-60	129,9	26.759,400	163,5830065	Válido	143,58301	1,189207	170,7499329	190,7499329	850045487,8	108,6932	7820594,921
50	-60	142,3	29.313,800	171,2127332	Válido	151,21273	1,189207	179,8232582	199,8232582	1045643035	108,6932	9620132,953
50	-60	147,4	30.364,400	174,2538378	Válido	154,25384	1,189207	183,4397615	203,4397615	1132332332	108,6932	10417692,48
50	-60	147,8	30.446,800	174,4901143	Válido	154,49011	1,189207	183,7207432	203,7207432	1139286035	108,6932	10481667,99
50	-60	163,2	33.619,200	183,3553926	Válido	163,35539	1,189207	194,2633952	214,2633952	1424176774	108,6932	13102721,92
50	-60	164,7	33.928,200	184,1960912	Válido	164,19609	1,189207	195,2631599	215,2631599	1453721629	108,6932	13374540,72
50	-60	176,8	36.420,800	190,8423433	Válido	170,84234	1,189207	203,1669302	223,1669302	1703774345	108,6932	15675077,6
50	-60	198	40.788,000	201,9603922	Válido	181,96039	1,189207	216,388593	236,388593	2192489147	108,6932	20171355,22
100	-60	30,4	6.262,400	79,13532713	Válido	59,135327	1,414214	83,62998164	103,6299816	48915669,93	108,6932	450034,3161
100	-60	57,5	11.845,000	108,8347371	Válido	88,834737	1,414214	125,63129	145,63129	249110066,1	108,6932	2291864,313
100	-60	63,3	13.039,800	114,1919437	Válido	94,191944	1,414214	133,2075242	153,2075242	314858213,1	108,6932	2896760,911
100	-60	64	13.184,000	114,8216008	Válido	94,821601	1,414214	134,0979938	154,0979938	323362104,1	108,6932	2974998,474
100	-60	68,5	14.111,000	118,7897302	Válido	98,78973	1,414214	139,7097763	159,7097763	380984396	108,6932	3505135,519
100	-60	82,8	17.056,800	130,6016845	Válido	110,60168	1,414214	156,4144023	176,4144023	598558989,3	108,6932	5506866,937
100	-60	86,1	17.736,600	133,1788271	Válido	113,17883	1,414214	160,0590323	180,0590323	656327721	108,6932	6038351,258
100	-60	88,3	18.189,800	134,8695666	Válido	114,86957	1,414214	162,450099	182,450099	696433929,9	108,6932	6407336,705
100	-60	89,4	18.416,400	135,7070374	Válido	115,70704	1,414214	163,6344616	183,6344616	716966868,3	108,6932	6596244
100	-60	94,5	19.467,000	139,5241915	Válido	119,52419	1,414214	169,0327326	189,0327326	816362880,3	108,6932	7510707,94
100	-60	102,2	21.053,200	145,0972088	Válido	125,09721	1,414214	176,9141693	196,9141693	979603820,3	108,6932	9012558,47
100	-60	106,3	21.897,800	147,9790526	Válido	127,97905	1,414214	180,9897118	200,9897118	1073039117	108,6932	9872182,597
100	-60	107,7	22.186,200	148,9503273	Válido	128,95033	1,414214	182,3633017	202,3633017	1105986399	108,6932	10175304,43
100	-60	112,3	23.133,800	152,0979947	Válido	132,09799	1,414214	186,8147757	206,8147757	1217993278	108,6932	11205790,96
100	-60	113	23.278,000	152,5712948	Válido	132,57129	1,414214	187,4841231	207,4841231	1235543338	108,6932	11367255,16
100	-60	115,5	23.793,000	154,2497974	Válido	134,2498	1,414214	189,8578842	209,8578842	1299315284	108,6932	11953970,3

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
100	-60	128,1	26.388,600	162,4456832	Válido	142,44568	1,414214	201,4486171	221,4486171	1646861822	108,6932	15151470,58
100	-60	131,1	27.006,600	164,3368492	Válido	144,33685	1,414214	204,1231297	224,1231297	1736076561	108,6932	15972264,7
100	-60	132,7	27.336,200	165,3366263	Válido	145,33663	1,414214	205,537028	225,537028	1784679727	108,6932	16419423,91
100	-60	150,2	30.941,200	175,9011086	Válido	155,90111	1,414214	220,4774621	240,4774621	2362962366	108,6932	21739744,22
100	-60	153,5	31.621,000	177,8229457	Válido	157,82295	1,414214	223,1953502	243,1953502	2481650230	108,6932	22831697,2
100	-60	160,8	33.124,800	182,0021978	Válido	162,0022	1,414214	229,1057052	249,1057052	2755139650	108,6932	25347856,63
100	-60	168,9	34.793,400	186,5298904	Válido	166,52989	1,414214	235,5088295	255,5088295	3076300640	108,6932	28302604,4
100	-60	191,9	39.531,400	198,8250487	Válido	178,82505	1,414214	252,8968092	4090471768	108,6932	37633189,27	
100	-60	225,7	46.494,200	215,6251377	Válido	195,62514	1,414214	276,6557228	296,6557228	5858124988	108,6932	53895965,79
100	-60	230	47.380,000	217,6694742	Válido	197,66947	1,414214	279,5468513	299,5468513	6106866407	108,6932	56184438,47
100	-60	241,9	49.831,400	223,2294783	Válido	203,22948	1,414214	287,4098845	307,4098845	6823493794	108,6932	62777559,17
100	-60	265,4	54.672,400	233,8212993	Válido	213,8213	1,414214	302,3889814	322,3889814	8361108288	108,6932	76923931,65
100	-60	282,6	58.215,600	241,2790915	Válido	221,27909	1,414214	312,9358923	332,9358923	9590064104	108,6932	88230580,24
100	-60	415,3	85.551,800	292,4923931	Censurado	272,49239	1,414214	385,3624379	405,3624379	0	108,6932	3,429855778
25	-60	38,4	7.910,400	88,9404295	Válido					22588944,53	108,6932	207822,9782
25	-60	46,1	9.496,600	97,45050026	Válido					35982961,89	108,6932	331050,7179
25	-60	55	11.330,000	106,4424727	Válido					55835283,59	108,6932	513696,1981
25	-60	63,6	13.101,600	114,4622208	Válido					79621912,89	108,6932	732538,1246
25	-60	64,1	13.204,600	114,9112701	Válido					81146751,92	108,6932	746566,9603
25	-60	77,7	16.006,200	126,5156117	Válido					128722084,2	108,6932	1184269,891
25	-60	78,7	16.212,200	127,3271377	Válido					132689998,7	108,6932	1220775,528
25	-60	87,8	18.086,800	134,4871741	Válido					171801655	108,6932	1580610,885
25	-60	89,1	18.354,600	135,4791497	Válido					177833800,3	108,6932	1636107,873
25	-60	116,3	23.957,800	154,783074	Válido					330020888	108,6932	3036260,668
25	-60	128,7	26.512,200	162,8256737	Válido					416126261,3	108,6932	3828447,974
25	-60	129	26.574,000	163,0153367	Válido					418341020,6	108,6932	3848824,219
25	-60	131,7	27.130,200	164,7124768	Válido					438554837,8	108,6932	4034795,533
25	-60	133,7	27.542,200	165,9584285	Válido					453854572,7	108,6932	4175556,269
25	-60	133,7	27.542,200	165,9584285	Válido					453854572,7	108,6932	4175556,269
25	-60	140,7	28.984,200	170,2474669	Válido					509599080,2	108,6932	4688417,308
25	-60	150,4	30.982,400	176,0181809	Válido					592517033	108,6932	5451279,684
25	-60	164,6	33.907,600	184,140164	Válido					725871010,5	108,6932	6678163,956
25	-60	166,1	34.216,600	184,9772959	Válido					740792750,6	108,6932	6815447,062
25	-60	176	36.256,000	190,4100838	Censurado					0	108,6932	1,714927902
25	-60	197,6	40.705,600	201,7562886	Censurado					0	108,6932	1,714927902
25	-60	200,2	41.241,200	203,0792949	Censurado					0	108,6932	1,714927902
25	-60	217,1	44.722,600	211,4771855	Censurado					0	108,6932	1,714927902
25	-60	219,5	45.217,000	212,6428931	Censurado					0	108,6932	1,714927902
25	-60	234,5	48.307,000	219,7885347	Censurado					0	108,6932	1,714927902
25	-60	275,9	56.835,400	238,4017617	Censurado					0	108,6932	1,714927902

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
25	-60	369,1	76.034,600	275,7437216	Censurado					0	108,6932	1,714927902
25	-60	373,6	76.961,600	277,4195379	Censurado					0	108,6932	1,714927902
25	-60	427,1	87.982,600	296,6186103	Censurado					0	108,6932	1,714927902
25	-60	678,2	139.709,200	373,7769388	Censurado					0	108,6932	1,714927902
25	-60	687,7	141.666,200	376,3857064	Censurado					0	108,6932	1,714927902
T. Válidos					109						Soma dos K0	916091989,6
T. Censurados					17						Somatoria ^{1/4}	173,9741693
											anterior +20	193,9741693
											Kjc Médio	178,734032
												148,734032
												2,124771886
											LN	0,753664449
											T - T0	39,66535995
25	-40	61,6	12.689,600	112,6481247	Válido					73679476,71	55,6932	1322952,833
25	-40	113,2	23.319,200	152,706254	Válido					310145554,3	55,6932	5568822,663
25	-40	136,6	28.139,600	167,7486215	Válido					476533843,6	55,6932	8556409,824
25	-40	139,3	28.695,800	169,3983471	Válido					498176423,4	55,6932	8945013,457
25	-40	155,4	32.012,400	178,9200939	Válido					637845141,6	55,6932	11452837
25	-40	165,5	34.093,000	184,6428986	Válido					734804848,9	55,6932	13193798,33
25	-40	195,2	40.211,200	200,5273049	Censurado					0	55,6932	186,0322553
25	-40	203,4	41.900,400	204,695872	Censurado					0	55,6932	186,0322553
25	-40	233,2	48.039,200	219,1784661	Censurado					0	55,6932	186,0322553
25	-40	251	51.706,000	227,3895336	Censurado					0	55,6932	186,0322553
25	-40	254,5	52.427,000	228,9694303	Censurado					0	55,6932	186,0322553
25	-40	264,8	54.548,800	233,5568453	Censurado					0	55,6932	186,0322553
25	-40	275,9	56.835,400	238,4017617	Censurado					0	55,6932	186,0322553
25	-40	283	58.298,000	241,4497877	Censurado					0	55,6932	186,0322553
25	-40	311,7	64.210,200	253,3973165	Censurado					0	55,6932	186,0322553
25	-40	349,2	71.935,200	268,2073824	Censurado					0	55,6932	186,0322553
25	-40	483,2	99.539,200	315,498336	Censurado					0	55,6932	186,0322553
25	-40	548,6	113.011,600	336,1719798	Censurado					0	55,6932	186,0322553
25	-40	562,8	115.936,800	340,4949339	Censurado					0	55,6932	186,0322553
25	-40	619,9	127.699,400	357,3505282	Censurado					0	55,6932	186,0322553
25	-40	758,7	156.292,200	395,3380832	Censurado					0	55,6932	186,0322553
25	-40	773,9	159.423,400	399,2785995	Censurado					0	55,6932	186,0322553
25	-40	1127,9	232.347,400	482,0242732	Censurado					0	55,6932	186,0322553
25	-40	1174	241.844,000	491,7763719	Censurado					0	55,6932	186,0322553
25	-40	1337,1	275.442,600	524,826257	Censurado					0	55,6932	186,0322553
25	-40	1337,2	275.463,200	524,8458821	Censurado					0	55,6932	186,0322553
25	-40	1433,6	295.321,600	543,4350007	Censurado					0	55,6932	186,0322553

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
25	-40	1544,1	318.084,600	563,9898935	Censurado					0	55,6932	186,0322553
25	-40	1573,3	324.099,800	569,2976374	Censurado					0	55,6932	186,0322553
25	-40	1714,3	353.145,800	594,2607172	Censurado					0	55,6932	186,0322553
50	-40	49,1	10.114,600	100,5713677	Válido	80,571368	1,189207	95,81604373	115,8160437	84285513,88	55,6932	1513389,676
50	-40	50,6	10.423,600	102,0960332	Válido	82,096033	1,189207	97,62918682	117,6291868	90848693,89	55,6932	1631234,942
50	-40	60,6	12.483,600	111,7300318	Válido	91,730032	1,189207	109,0860064	129,0860064	141604211,9	55,6932	2542576,328
50	-40	93,8	19.322,800	139,0064747	Válido	119,00647	1,189207	141,5233464	161,5233464	401155135,9	55,6932	7202946,426
50	-40	107,4	22.124,400	148,7427309	Válido	128,74273	1,189207	153,1017716	173,1017716	549440747,8	55,6932	9865490,721
50	-40	107,5	22.145,000	148,8119619	Válido	128,81196	1,189207	153,1841016	173,1841016	550623541,1	55,6932	9886728,381
50	-40	119	24.514,000	156,5694734	Válido	136,56947	1,189207	162,4093895	182,4093895	695736094,4	55,6932	12492298,78
50	-40	122,7	25.276,200	158,9849049	Válido	138,9849	1,189207	165,2818378	185,2818378	746277818,3	55,6932	13399801,38
50	-40	137,8	28.386,800	168,4838271	Válido	148,48383	1,189207	176,5780237	196,5780237	972179831	55,6932	17455988
50	-40	139,9	28.819,400	169,7627757	Válido	149,76278	1,189207	178,0989584	198,0989584	1006110121	55,6932	18065223,78
50	-40	166,5	34.299,000	185,199892	Válido	165,19989	1,189207	196,456887	216,456887	1489597834	55,6932	26746493,89
50	-40	167	34.402,000	185,4777615	Válido	165,47776	1,189207	196,7873313	216,7873313	1499645279	55,6932	26926900,94
50	-40	167	34.402,000	185,4777615	Válido	165,47776	1,189207	196,7873313	216,7873313	1499645279	55,6932	26926900,94
50	-40	168,9	34.793,400	186,5298904	Válido	166,52989	1,189207	198,0385305	218,0385305	1538150320	55,6932	27618278,72
50	-40	187	38.522,000	196,2702219	Válido	176,27022	1,189207	209,621802	229,621802	1930837836	55,6932	34669184,67
50	-40	205,3	42.291,800	205,6497022	Válido	185,6497	1,189207	220,7759467	240,7759467	2375784382	55,6932	42658428,35
50	-40	210	43.260,000	207,9903844	Válido	187,99038	1,189207	223,5595027	243,5595027	2497885571	55,6932	44850817,89
50	-40	212,8	43.836,800	209,3723955	Válido	189,3724	1,189207	225,2030001	245,2030001	2572152343	55,6932	46184315,91
50	-40	217,1	44.722,600	211,4771855	Válido	191,47719	1,189207	227,7060314	247,7060314	2688426309	55,6932	48272074,67
50	-40	219,3	45.175,800	212,545995	Válido	192,546	1,189207	228,9770672	248,9770672	2748957050	55,6932	49358935,2
50	-40	245	50.470,000	224,6552915	Censurado	204,65529	1,189207	243,3775288	263,3775288	0	55,6932	4,723904175
50	-40	251,8	51.870,800	227,7516191	Censurado	207,75162	1,189207	247,0597036	267,0597036	0	55,6932	4,723904175
50	-40	271,9	56.011,400	236,667277	Censurado	216,66728	1,189207	257,6622674	277,6622674	0	55,6932	4,723904175
50	-40	272,7	56.176,200	237,0151894	Censurado	217,01519	1,189207	258,0760073	278,0760073	0	55,6932	4,723904175
50	-40	274,2	56.485,200	237,6661524	Censurado	217,66615	1,189207	258,8501371	278,8501371	0	55,6932	4,723904175
50	-40	308,7	63.592,200	252,1749393	Censurado	232,17494	1,189207	276,1040897	296,1040897	0	55,6932	4,723904175
50	-40	308,8	63.612,800	252,2157806	Censurado	232,21578	1,189207	276,1526585	296,1526585	0	55,6932	4,723904175
50	-40	313,1	64.498,600	253,9657457	Censurado	233,96575	1,189207	278,2337295	298,2337295	0	55,6932	4,723904175
50	-40	313,1	64.498,600	253,9657457	Censurado	233,96575	1,189207	278,2337295	298,2337295	0	55,6932	4,723904175
50	-40	349,4	71.976,400	268,2841777	Censurado	248,28418	1,189207	295,2613107	315,2613107	0	55,6932	4,723904175
50	-40	386,6	79.639,600	282,2048901	Censurado	262,20489	1,189207	311,8159209	331,8159209	0	55,6932	4,723904175
50	-40	455,2	93.771,200	306,2208353	Censurado	286,22084	1,189207	340,3758539	360,3758539	0	55,6932	4,723904175
100	-40	40	8.240,000	90,77444574	Válido	70,774446	1,414214	100,090181	120,090181	100361212,4	55,6932	1802037,096
100	-40	63,5	13.081,000	114,3721994	Válido	94,372199	1,414214	133,4624443	153,4624443	317275325,5	55,6932	5696841,364
100	-40	75,5	15.553,000	124,7116675	Válido	104,71167	1,414214	148,0846603	168,0846603	480883962,1	55,6932	8634518,435
100	-40	79,1	16.294,600	127,6503036	Válido	107,6503	1,414214	152,2405193	172,2405193	537181474,1	55,6932	9645369,167

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068	
100	-40	81	16.686,000	129,1743008	Válido	109,1743	1,414214	154,3957769	174,3957769	568252910,6	55,6932	10203272,76	
100	-40	86,1	17.736,600	133,1788271	Válido	113,17883	1,414214	160,0590323	180,0590323	656327721	55,6932	11784701,2	
100	-40	91,5	18.849,000	137,2916603	Válido	117,29166	1,414214	165,8754568	185,8754568	757056909,6	55,6932	13593345,5	
100	-40	92,1	18.972,600	137,7410614	Válido	117,74106	1,414214	166,5110059	186,5110059	768726367,4	55,6932	13802876,61	
100	-40	94,8	19.528,800	139,7454829	Válido	119,74548	1,414214	169,345686	189,345686	822425468,1	55,6932	14767071,53	
100	-40	95,6	19.693,600	140,3338876	Válido	120,33389	1,414214	170,1778158	190,1778158	838709922,8	55,6932	15059467,27	
100	-40	96	19.776,000	140,6271666	Válido	120,62717	1,414214	170,5925751	190,5925751	846916315,4	55,6932	15206817,27	
100	-40	96,4	19.858,400	140,9198354	Válido	120,91984	1,414214	171,0064711	191,0064711	855165516,5	55,6932	15354935,91	
100	-40	99,6	20.517,600	143,2396593	Válido	123,23966	1,414214	174,2871976	194,2871976	922703031,8	55,6932	16567606,67	
100	-40	102,6	21.135,600	145,3808791	Válido	125,38088	1,414214	177,3153396	197,3153396	988519482,4	55,6932	17749374,83	
100	-40	108,2	22.289,200	149,2956798	Válido	129,29568	1,414214	182,8517039	202,8517039	1117882215	55,6932	20072149,1	
100	-40	110,9	22.845,400	151,1469484	Válido	131,14695	1,414214	185,469793	205,469793	1183294237	55,6932	21246655,55	
100	-40	112,4	23.154,400	152,1656992	Válido	132,1657	1,414214	186,9105242	206,9105242	1220492239	55,6932	21914564,78	
100	-40	124	25.544,000	159,8249042	Válido	139,8249	1,414214	197,7422759	217,7422759	1528967003	55,6932	27453387,55	
100	-40	141,2	29.087,200	170,5496995	Válido	150,5497	1,414214	212,9094268	232,9094268	2054847344	55,6932	36895839,05	
100	-40	142,5	29.355,000	171,3330091	Válido	151,33301	1,414214	214,0171939	234,0171939	2097947721	55,6932	37669728,45	
100	-40	153,4	31.600,400	177,7650134	Válido	157,76501	1,414214	223,1134217	243,1134217	2478008469	55,6932	44493914,32	
100	-40	160,5	33.063,000	181,8323404	Válido	161,83234	1,414214	228,8654906	248,8654906	2743602882	55,6932	49262798,37	
100	-40	166,8	34.360,800	185,3666637	Válido	165,36666	1,414214	233,8637785	253,8637785	2991244059	55,6932	53709322,85	
100	-40	167,8	34.566,800	185,9214888	Válido	165,92149	1,414214	234,6484198	254,6484198	3031590484	55,6932	54433763,62	
100	-40	175,4	36.132,400	190,085244	Válido	170,08524	1,414214	240,5368589	260,5368589	3347545905	55,6932	60106905,42	
100	-40	186,7	38.460,200	196,1127227	Válido	176,11272	1,414214	249,0610009	269,0610009	3847892376	55,6932	69090883,19	
100	-40	187,7	38.666,200	196,6372294	Válido	176,63723	1,414214	249,8027655	269,8027655	3893937423	55,6932	69917645,66	
100	-40	214,1	44.104,600	210,0109521	Válido	190,01095	1,414214	268,7160655	288,7160655	5214042031	55,6932	93620801,65	
100	-40	272,3	56.093,800	236,8412971	Válido	216,8413	1,414214	306,6599032	326,6599032	8843577316	55,6932	158790971,2	
100	-40	282,2	58.133,200	241,1082744	Válido	221,10827	1,414214	312,6943205	332,6943205	9560486057	55,6932	171663435,7	
					Válidos	56						Somatoria	1677523367
					Censurados	36						Somatoria ^{1/4}	202,3797917
										K0	222,3797917		
										Kjc Médio	204,651322		
											174,651322		
											2,495018885		
										Ln	0,914296298		
										T-T0	48,11941418		
25	-20	78,9	16.253,400	127,488823	Válido					133491382,3	45,6932	2921471,517	
25	-20	102,7	21.156,200	145,4517102	Válido					247688786	45,6932	5420692,488	
25	-20	258,8	53.312,800	230,8956474	Censurado					0	45,6932	3,952466647	
25	-20	723,7	149.082,200	386,1116419	Censurado					0	45,6932	3,952466647	
25	-20	772,5	159.135,000	398,9172847	Censurado					0	45,6932	3,952466647	
25	-20	798,3	164.449,800	405,5241053	Censurado					0	45,6932	3,952466647	
25	-20	914,9	188.469,400	434,1306255	Censurado					0	45,6932	3,952466647	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
25	-20	1133,7	233.542,200	483,2620407	Censurado					0	45,6932	3,952466647
25	-20	1340	276.040,000	525,3950894	Censurado					0	45,6932	3,952466647
25	-20	1348,6	277.811,600	527,0783623	Censurado					0	45,6932	3,952466647
25	-20	1361,1	280.386,600	529,5154389	Censurado					0	45,6932	3,952466647
25	-20	1368,5	281.911,000	530,9529169	Censurado					0	45,6932	3,952466647
25	-20	1368,6	281.931,600	530,9723157	Censurado					0	45,6932	3,952466647
25	-20	1371,1	282.446,600	531,4570538	Censurado					0	45,6932	3,952466647
25	-20	1381,3	284.547,800	533,4302204	Censurado					0	45,6932	3,952466647
25	-20	1391	286.546,000	535,2999159	Censurado					0	45,6932	3,952466647
25	-20	1408,2	290.089,200	538,5992945	Censurado					0	45,6932	3,952466647
25	-20	1436,3	295.877,800	543,9465047	Censurado					0	45,6932	3,952466647
25	-20	1459,7	300.698,200	548,3595536	Censurado					0	45,6932	3,952466647
25	-20	1472,5	303.335,000	550,7585678	Censurado					0	45,6932	3,952466647
25	-20	1473,7	303.582,200	550,9829398	Censurado					0	45,6932	3,952466647
25	-20	1480,1	304.900,600	552,178051	Censurado					0	45,6932	3,952466647
25	-20	1496,6	308.299,600	555,2473323	Censurado					0	45,6932	3,952466647
25	-20	1497,2	308.423,200	555,3586229	Censurado					0	45,6932	3,952466647
25	-20	1499	308.794,000	555,6923609	Censurado					0	45,6932	3,952466647
25	-20	1524,5	314.047,000	560,398965	Censurado					0	45,6932	3,952466647
25	-20	1547,8	318.846,800	564,6652105	Censurado					0	45,6932	3,952466647
25	-20	1553,3	319.979,800	565,6675702	Censurado					0	45,6932	3,952466647
25	-20	1554,5	320.227,000	565,8860309	Censurado					0	45,6932	3,952466647
25	-20	1560,5	321.463,000	566,9770718	Censurado					0	45,6932	3,952466647
25	-20	1575	324.450,000	569,6051264	Censurado					0	45,6932	3,952466647
50	-20	139	28.634,000	169,2158385	Válido	149,21584	1,189207	177,4485368	197,4485368	991493087,2	45,6932	21698919,91
50	-20	162	33.372,000	182,6800482	Válido	162,68005	1,189207	193,4602708	213,4602708	1400771074	45,6932	30656007,33
50	-20	168,1	34.628,600	186,0876138	Válido	166,08761	1,189207	197,512572	217,512572	1521874982	45,6932	33306377,8
50	-20	180,6	37.203,600	192,8823476	Válido	172,88235	1,189207	205,5929178	225,5929178	1786621683	45,6932	39100384,36
50	-20	195,2	40.211,200	200,5273049	Válido	180,5273	1,189207	214,6843554	234,6843554	2124230253	45,6932	46488979,84
50	-20	256	52.736,000	229,6432015	Censurado	209,6432	1,189207	249,3091868	269,3091868	0	45,6932	5,589631936
50	-20	259	53.354,000	230,984848	Censurado	210,98485	1,189207	250,9046824	270,9046824	0	45,6932	5,589631936
50	-20	291	59.946,000	244,8387224	Censurado	224,83872	1,189207	267,3798084	287,3798084	0	45,6932	5,589631936
50	-20	326,5	67.259,000	259,3434017	Censurado	239,3434	1,189207	284,6288762	304,6288762	0	45,6932	5,589631936
50	-20	328,8	67.732,800	260,2552593	Censurado	240,25526	1,189207	285,7132638	305,7132638	0	45,6932	5,589631936
50	-20	330	67.980,000	260,7297451	Censurado	240,72975	1,189207	286,2775257	306,2775257	0	45,6932	5,589631936
50	-20	362,3	74.633,800	273,191874	Censurado	253,19187	1,189207	301,097578	321,097578	0	45,6932	5,589631936
50	-20	380	78.280,000	279,7856322	Censurado	259,78563	1,189207	308,9389222	328,9389222	0	45,6932	5,589631936
50	-20	392	80.752,000	284,1689638	Censurado	264,16896	1,189207	314,1516113	334,1516113	0	45,6932	5,589631936
50	-20	417	85.902,000	293,0904297	Censurado	273,09043	1,189207	324,7610821	344,7610821	0	45,6932	5,589631936
50	-20	447	92.082,000	303,4501607	Censurado	283,45016	1,189207	337,0809478	357,0809478	0	45,6932	5,589631936

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068
50	-20	480	98.880,000	314,4519041	Censurado	294,4519	1,189207	350,1642994	370,1642994	0	45,6932	5,589631936
50	-20	486,8	100.280,800	316,6714386	Censurado	296,67144	1,189207	352,8037856	372,8037856	0	45,6932	5,589631936
50	-20	502	103.412,000	321,5773624	Censurado	301,57736	1,189207	358,6379451	378,6379451	0	45,6932	5,589631936
50	-20	512	105.472,000	324,7645301	Censurado	304,76453	1,189207	362,4281476	382,4281476	0	45,6932	5,589631936
50	-20	555	114.330,000	338,127195	Censurado	318,1272	1,189207	378,3191238	398,3191238	0	45,6932	5,589631936
50	-20	648,8	133.652,800	365,5855577	Censurado	345,58556	1,189207	410,9728041	430,9728041	0	45,6932	5,589631936
50	-20	655,6	135.053,600	367,4963945	Censurado	347,49639	1,189207	413,2451848	433,2451848	0	45,6932	5,589631936
50	-20	695	143.170,000	378,3781178	Censurado	358,37812	1,189207	426,1858075	446,1858075	0	45,6932	5,589631936
50	-20	807	166.242,000	407,7278504	Censurado	387,72785	1,189207	461,0887184	481,0887184	0	45,6932	5,589631936
50	-20	820	168.920,000	410,9987835	Censurado	390,99878	1,189207	464,9785352	484,9785352	0	45,6932	5,589631936
50	-20	1017	209.502,000	457,7138844	Censurado	437,71388	1,189207	520,5324657	540,5324657	0	45,6932	5,589631936
50	-20	1266	260.796,000	510,6818971	Censurado	490,6819	1,189207	583,5224032	603,5224032	0	45,6932	5,589631936
50	-20	1582	325.892,000	570,8695122	Censurado	550,86951	1,189207	655,0979434	675,0979434	0	45,6932	5,589631936
50	-20	1619	333.514,000	577,5067099	Censurado	557,50671	1,189207	662,9909461	682,9909461	0	45,6932	5,589631936
100	-20	58,6	12.071,600	109,8708333	Válido	89,870833	1,414214	127,0965513	147,0965513	260936639,4	45,6932	5710623,011
100	-20	74,4	15.326,400	123,7998384	Válido	103,79984	1,414214	146,7951393	166,7951393	464351338,4	45,6932	10162372,92
100	-20	82,8	17.056,800	130,6016845	Válido	110,60168	1,414214	156,4144023	176,4144023	598558989,3	45,6932	13099520,05
100	-20	100,6	20.723,600	143,956938	Válido	123,95694	1,414214	175,3015829	195,3015829	944372539,6	45,6932	20667682,27
100	-20	112,2	23.113,200	152,0302601	Válido	132,03026	1,414214	186,7189845	206,7189845	1215497045	45,6932	26601267,69
100	-20	123,7	25.482,200	159,6314505	Válido	139,63145	1,414214	197,4686911	217,4686911	1520522986	45,6932	33276789,24
100	-20	130,8	26.944,800	164,1487131	Válido	144,14871	1,414214	203,857065	223,857065	1727042675	45,6932	37796492,15
100	-20	133,4	27.480,400	165,7721328	Válido	145,77213	1,414214	206,1529272	226,1529272	1806167498	45,6932	39528146,38
100	-20	186,1	38.336,600	195,7973442	Válido	175,79734	1,414214	248,6149884	268,6149884	3820403469	45,6932	83609890,95
100	-20	188,4	38.810,400	197,0035533	Válido	177,00355	1,414214	250,3208256	270,3208256	3926340233	45,6932	85928327,03
100	-20	191,7	39.490,200	198,721413	Válido	178,72141	1,414214	252,7502462	272,7502462	4080997693	45,6932	89313020,16
100	-20	193	39.758,000	199,3940822	Válido	179,39408	1,414214	253,701544	273,701544	4142785440	45,6932	90665250,84
100	-20	212,3	43.733,800	209,1262776	Válido	189,12628	1,414214	267,4649468	287,4649468	5117613590	45,6932	111999457
100	-20	212,5	43.775,000	209,2247595	Válido	189,22476	1,414214	267,6042213	287,6042213	5128281299	45,6932	112232920,9
100	-20	223	45.938,000	214,3315189	Válido	194,33152	1,414214	274,8262696	294,8262696	5704702120	45,6932	124847945
100	-20	224,4	46.226,400	215,0032558	Válido	195,00326	1,414214	275,776249	295,776249	5783988770	45,6932	126583140,8
100	-20	231,2	47.627,200	218,2365689	Válido	198,23657	1,414214	280,3488443	300,3488443	6177248610	45,6932	135189669,6
100	-20	247,3	50.943,800	225,7073326	Válido	205,70733	1,414214	290,9140997	310,9140997	7162408427	45,6932	156749985,3
100	-20	288,5	59.431,000	243,7847411	Válido	223,78474	1,414214	316,4794159	336,4794159	10031869493	45,6932	219548411,9
100	-20	299,8	61.758,800	248,5131787	Válido	228,51318	1,414214	323,1664365	343,1664365	10906992078	45,6932	238700552,3
100	-20	301,3	62.067,800	249,1341004	Válido	229,1341	1,414214	324,0445524	344,0445524	11026023136	45,6932	241305558,3
100	-20	315,9	65.075,400	255,0988044	Válido	235,0988	1,414214	332,4799177	352,4799177	12219731778	45,6932	267429984,7
100	-20	318,2	65.549,200	256,02578	Válido	236,02578	1,414214	333,7908591	353,7908591	12413600285	45,6932	271672815,3
100	-20	324,6	66.867,600	258,5877027	Válido	238,5877	1,414214	337,413965	357,413965	12961408950	45,6932	283661659,7
100	-20	334,9	68.989,400	262,6583332	Censurado	242,65833	1,414214	343,1707058	363,1707058	0	45,6932	7,904933338
100	-20	371,9	76.611,400	276,7876442	Censurado	256,78764	1,414214	363,1525691	383,1525691	0	45,6932	7,904933338

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ⁴	r-0,3068	Kjc-20 ⁴ / r - 0,3068		
100	-20	373,5	76.941,000	277,3824075	Censurado	257,38241	1,414214	363,9936914	383,9936914	0	45,6932	7,904933338		
100	-20	384,1	79.124,600	281,2909526	Censurado	261,29095	1,414214	369,5212089	389,5212089	0	45,6932	7,904933338		
100	-20	588,7	121.272,200	348,2415828	Censurado	328,24158	1,414214	464,2036981	484,2036981	0	45,6932	7,904933338		
100	-20	683,1	140.718,600	375,1247792	Censurado	355,12478	1,414214	502,2222791	522,2222791	0	45,6932	7,904933338		
200	-20	112	23.072,000	151,8947004	Válido	131,8947	1,681793	221,8195615	241,8195615	2421025531	45,6932	52984372,54		
200	-20	117	24.102,000	155,2481884	Válido	135,24819	1,681793	227,4594336	247,4594336	2676799320	45,6932	58582006,08		
200	-20	125	25.750,000	160,4680654	Válido	140,46807	1,681793	236,2381852	256,2381852	3114586458	45,6932	68163018,96		
200	-20	162	33.372,000	182,6800482	Válido	162,68005	1,681793	273,5941387	293,5941387	5603084296	45,6932	122624029,3		
200	-20	162	33.372,000	182,6800482	Válido	162,68005	1,681793	273,5941387	293,5941387	5603084296	45,6932	122624029,3		
200	-20	166	34.196,000	184,921605	Válido	164,92161	1,681793	277,3639729	297,3639729	5918343906	45,6932	129523515,7		
200	-20	168	34.608,000	186,0322553	Válido	166,03226	1,681793	279,2318565	299,2318565	6079387909	45,6932	133047978,9		
200	-20	175	36.050,000	189,8683755	Válido	169,86838	1,681793	285,683416	305,683416	6661010537	45,6932	145776845,1		
200	-20	179	36.874,000	192,0260399	Válido	172,02604	1,681793	289,3121606	309,3121606	7005945497	45,6932	153325779,3		
200	-20	179	36.874,000	192,0260399	Válido	172,02604	1,681793	289,3121606	309,3121606	7005945497	45,6932	153325779,3		
200	-20	187	38.522,000	196,2702219	Válido	176,27022	1,681793	296,4499954	316,4499954	7723351343	45,6932	169026274		
200	-20	199	40.994,000	202,4697508	Válido	182,46975	1,681793	306,8763187	326,8763187	8868568054	45,6932	194089449,9		
200	-20	234	48.204,000	219,5540936	Válido	199,55409	1,681793	335,6086439	355,6086439	12686229143	45,6932	277639323,6		
200	-20	236	48.616,000	220,4903626	Válido	200,49036	1,681793	337,1832544	357,1832544	12925995256	45,6932	282886627,7		
200	-20	239	49.234,000	221,8873588	Válido	201,88736	1,681793	339,5327126	359,5327126	13290046261	45,6932	290853918,3		
											Válidos	46	Somatoria	5360347567
											Censurados	60	Somatoria ^{1/4}	270,5815857
													K0	290,5815857
													Kjc Médio	266,8786388
														236,8786388
														3,383980554
													Ln	1,219052695
													T-T0	64,15874336

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc) (Kjc)	Cálculo do PF	Limite	Jc - 20	Conv Pol	Mult	Mult + 20 (Kjc)	Kjc-20 ³	r-0,3068	Kjc-20 ³ / r - 0,3068
25	-91	19,9	4.099,400	64,03	0,02	Válido					85338,33611	109,6932	777,9728927
25	-91	21,3	4.387,800	66,24	0,05	Válido					98870,50393	109,6932	901,3366729
25	-91	23,1	4.758,600	68,98	0,09	Válido					117523,7591	109,6932	1071,386003
25	-91	23,7	4.882,200	69,87	0,12	Válido					124047,9881	109,6932	1130,863063
25	-91	29,1	5.994,600	77,42	0,15	Válido					189364,4821	109,6932	1726,310128
25	-91	29,4	6.056,400	77,82	0,18	Válido					193329,9161	109,6932	1762,460354
25	-91	38,6	7.951,600	89,17	0,21	Válido					330968,1361	109,6932	3017,216528
25	-91	39,7	8.178,200	90,43	0,25	Válido					349410,5204	109,6932	3185,343489
25	-91	42,3	8.713,800	93,35	0,28	Válido					394602,7949	109,6932	3597,33142
25	-91	46,3	9.537,800	97,66	0,31	Válido					468403,3819	109,6932	4270,122322
25	-91	47,3	9.743,800	98,71	0,34	Válido					487642,0315	109,6932	4445,508304
25	-91	48,9	10.073,400	100,37	0,37	Válido					519065,7735	109,6932	4731,977675
25	-91	51,4	10.588,400	102,90	0,40	Válido					569721,7872	109,6932	5193,774885
25	-91	52	10.712,000	103,50	0,44	Válido					582157,6134	109,6932	5307,144048
25	-91	55,9	11.515,400	107,31	0,47	Válido					665563,4352	109,6932	6067,499491
25	-91	56,6	11.659,600	107,98	0,50	Válido					680998,8205	109,6932	6208,21364
25	-91	59,4	12.236,400	110,62	0,53	Válido					744127,2223	109,6932	6783,713324
25	-91	63,3	13.039,800	114,19	0,56	Válido					835682,4395	109,6932	7618,361389
25	-91	68,5	14.111,000	118,79	0,60	Válido					964129,559	109,6932	8789,328409
25	-91	70,2	14.461,200	120,25	0,63	Válido					1007661,372	109,6932	9186,179014
25	-91	70,6	14.543,600	120,60	0,66	Válido					1018012,553	109,6932	9280,54385
25	-91	71,4	14.708,400	121,28	0,69	Válido					1038837,999	109,6932	9470,395605
25	-91	76	15.656,000	125,12	0,72	Válido					1161729,108	109,6932	10590,71217
25	-91	76,5	15.759,000	125,53	0,75	Válido					1175405,618	109,6932	10715,39182
25	-91	76,6	15.779,600	125,62	0,79	Válido					1178148,339	109,6932	10740,39539
25	-91	76,8	15.820,800	125,78	0,82	Válido					1183641,188	109,6932	10790,47004
25	-91	77	15.862,000	125,94	0,85	Válido					1189143,902	109,6932	10840,63463
25	-91	77,2	15.903,200	126,11	0,88	Válido					1194656,47	109,6932	10890,88904
25	-91	93,9	19.343,400	139,08	0,91	Válido					1688583,416	109,6932	15393,69274
25	-91	112,8	23.236,800	152,44	0,95	Válido					2322845,327	109,6932	21175,83704
25	-91	124,3	25.605,800	160,02	0,98	Válido					2745065,828	109,6932	25024,94072
31				Σ de X			Numerador	333,05		Numerador	333,0456634		
31				X			Denominador	(30.704.381,47)		Denominador	86,00		
				Y			Raiz	5541,153442		Valor de a	3,87		
				b			Valor de R	0,06					
				a			>0 e <1						
				Reta									
50	-91	14,9	3.069,400	55,40	0,02	Válido	35,40	1,25992105	44,60	64,60	88740,01523	109,6932	808,9837404
50	-91	18,3	3.769,800	61,40	0,05	Válido	41,40	1,25992105	52,16	72,16	141902,4892	109,6932	1293,630683
50	-91	18,8	3.872,800	62,23	0,08	Válido	42,23	1,25992105	53,21	73,21	150643,2002	109,6932	1373,313936
50	-91	20,2	4.161,200	64,51	0,11	Válido	44,51	1,25992105	56,08	76,08	176329,7589	109,6932	1607,481219
50	-91	22,4	4.614,400	67,93	0,14	Válido	47,93	1,25992105	60,39	80,39	220209,117	109,6932	2007,500164
50	-91	24,6	5.067,600	71,19	0,17	Válido	51,19	1,25992105	64,49	84,49	268232,2536	109,6932	2445,295183

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc) (Kjc)	Cálculo do PF	Limite	Jc - 20	Conv Pol	Mult	Mult + 20 (Kjc)	Kjc-20 ³	r-0,3068	Kjc-20 ³ / r - 0,3068	
50	-91	27,7	5.706,200	75,54	0,19	Válido	55,54	1,25992105	69,98	89,98	342636,3215	109,6932	3123,58762	
50	-91	30,2	6.221,200	78,87	0,22	Válido	58,87	1,25992105	74,18	94,18	408144,1255	109,6932	3720,778731	
50	-91	30,4	6.262,400	79,14	0,25	Válido	59,14	1,25992105	74,51	94,51	413590,9304	109,6932	3770,433631	
50	-91	30,6	6.303,600	79,40	0,28	Válido	59,40	1,25992105	74,83	94,83	419067,855	109,6932	3820,363112	
50	-91	31,7	6.530,200	80,81	0,31	Válido	60,81	1,25992105	76,62	96,62	449725,5575	109,6932	4099,849011	
50	-91	34,3	7.065,800	84,06	0,34	Válido	64,06	1,25992105	80,71	100,71	525722,4087	109,6932	4792,661794	
50	-91	41,5	8.549,000	92,46	0,37	Válido	72,46	1,25992105	91,29	111,29	760920,7273	109,6932	6936,808547	
50	-91	41,6	8.569,600	92,57	0,40	Válido	72,57	1,25992105	91,44	111,44	764433,4414	109,6932	6968,831626	
50	-91	45,3	9.331,800	96,60	0,43	Válido	76,60	1,25992105	96,51	116,51	898953,9258	109,6932	8195,165478	
50	-91	46,1	9.496,600	97,45	0,46	Válido	77,45	1,25992105	97,58	117,58	929186,0421	109,6932	8470,771589	
50	-91	46,5	9.579,000	97,87	0,49	Válido	77,87	1,25992105	98,11	118,11	944452,4633	109,6932	8609,945405	
50	-91	47,3	9.743,800	98,71	0,51	Válido	78,71	1,25992105	99,17	119,17	975284,0629	109,6932	8891,016608	
50	-91	48,7	10.032,200	100,16	0,54	Válido	80,16	1,25992105	101,00	121,00	1030189,862	109,6932	9391,556282	
50	-91	52,7	10.856,200	104,19	0,57	Válido	84,19	1,25992105	106,08	126,08	1193601,463	109,6932	10881,27124	
50	-91	54,6	11.247,600	106,05	0,60	Válido	86,05	1,25992105	108,42	128,42	1274541,039	109,6932	11619,14356	
50	-91	55,6	11.453,600	107,02	0,63	Válido	87,02	1,25992105	109,64	129,64	1317982,332	109,6932	12015,16896	
50	-91	57,4	11.824,400	108,74	0,66	Válido	88,74	1,25992105	111,81	131,81	1397619,997	109,6932	12741,17263	
50	-91	58,7	12.092,200	109,96	0,69	Válido	89,96	1,25992105	113,35	133,35	1456277,31	109,6932	13275,91236	
50	-91	59,1	12.174,600	110,34	0,72	Válido	90,34	1,25992105	113,82	133,82	1474516,473	109,6932	13442,18669	
50	-91	67	13.802,000	117,48	0,75	Válido	97,48	1,25992105	122,82	142,82	1852687,333	109,6932	16889,71908	
50	-91	75,7	15.594,200	124,88	0,78	Válido	104,88	1,25992105	132,14	152,14	2307105,868	109,6932	21032,35085	
50	-91	76,2	15.697,200	125,29	0,81	Válido	105,29	1,25992105	132,66	152,66	2334384,574	109,6932	21281,03268	
50	-91	78,6	16.191,600	127,25	0,83	Válido	107,25	1,25992105	135,12	155,12	2467038,651	109,6932	22490,35173	
50	-91	81	16.686,000	129,17	0,86	Válido	109,17	1,25992105	137,55	157,55	2602503,09	109,6932	23725,29099	
50	-91	86	17.716,000	133,10	0,89	Válido	113,10	1,25992105	142,50	162,50	2893574,626	109,6932	26378,79673	
50	-91	86,5	17.819,000	133,49	0,92	Válido	113,49	1,25992105	142,99	162,99	2923329,97	109,6932	26650,05643	
50	-91	100,5	20.703,000	143,89	0,95	Válido	123,89	1,25992105	156,09	176,09	3802682,564	109,6932	34666,52959	
50	-91	117,8	24.266,800	155,78	0,98	Válido	135,78	1,25992105	171,07	191,07	5006320,747	109,6932	45639,29894	
Σ de X							34	Numerador	235,07	Numerador		235,072699		
X								Denominador	(40.461.854,23)	Denominador		3.621,24		
y								Raiz	6360,96331	Valor de a		0,06		
b								Valor de R	0,04					
a								>0 e <1						
Reta														
100	-91	19,6	4.037,600	63,54	0,02	Válido	43,54	1,587401052	69,12	89,12	330208,6637	109,6932	3010,292923	
100	-91	19,7	4.058,200	63,70	0,06	Válido	43,70	1,587401052	69,38	89,38	333905,5546	109,6932	3043,995021	
100	-91	21,6	4.449,600	66,71	0,09	Válido	46,71	1,587401052	74,14	94,14	407529,5515	109,6932	3715,176069	
100	-91	23,3	4.799,800	69,28	0,12	Válido	49,28	1,587401052	78,23	98,23	478726,7094	109,6932	4364,233238	
100	-91	25,4	5.232,400	72,34	0,15	Válido	52,34	1,587401052	83,08	103,08	573383,1128	109,6932	5227,152757	
100	-91	25,9	5.335,400	73,04	0,19	Válido	53,04	1,587401052	84,20	104,20	596986,3893	109,6932	5442,328142	
100	-91	27,7	5.706,200	75,54	0,22	Válido	55,54	1,587401052	88,16	108,16	685272,643	109,6932	6247,175239	
100	-91	29,5	6.077,000	77,96	0,25	Válido	57,96	1,587401052	92,00	112,00	778637,4959	109,6932	7098,320551	
100	-91	32	6.592,000	81,19	0,29	Válido	61,19	1,587401052	97,13	117,13	916485,2184	109,6932	8354,986621	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc) (Kjc)	Cálculo do PF	Limite	Jc - 20	Conv Pol	Mult	Mult + 20 (Kjc)	Kjc-20 ³	r-0,3068	Kjc-20 ³ / r - 0,3068	
100	-91	32,1	6.612,600	81,32	0,32	Válido	61,32	1,587401052	97,34	117,34	922192,7368	109,6932	8407,018273	
100	-91	32,9	6.777,400	82,32	0,35	Válido	62,32	1,587401052	98,93	118,93	968380,7299	109,6932	8828,083508	
100	-91	33	6.798,000	82,45	0,38	Válido	62,45	1,587401052	99,13	119,13	974219,915	109,6932	8881,315478	
100	-91	33,4	6.880,400	82,95	0,42	Válido	62,95	1,587401052	99,92	119,92	997721,7845	109,6932	9095,566403	
100	-91	35,8	7.374,800	85,88	0,45	Válido	65,88	1,587401052	104,57	124,57	1143548,59	109,6932	10424,97247	
100	-91	35,9	7.395,400	86,00	0,48	Válido	66,00	1,587401052	104,76	124,76	1149801,662	109,6932	10481,97757	
100	-91	37,6	7.745,600	88,01	0,52	Válido	68,01	1,587401052	107,96	127,96	1258232,478	109,6932	11470,46925	
100	-91	39,6	8.157,600	90,32	0,55	Válido	70,32	1,587401052	111,63	131,63	1390868,51	109,6932	12679,6238	
100	-91	40,1	8.260,600	90,89	0,58	Válido	70,89	1,587401052	112,53	132,53	1424870,109	109,6932	12989,59378	
100	-91	40,6	8.363,600	91,45	0,62	Válido	71,45	1,587401052	113,42	133,42	1459204,933	109,6932	13302,60156	
100	-91	41,1	8.466,600	92,01	0,65	Válido	72,01	1,587401052	114,32	134,32	1493871,131	109,6932	13618,63024	
100	-91	41,3	8.507,800	92,24	0,68	Válido	72,24	1,587401052	114,67	134,67	1507829,986	109,6932	13745,88385	
100	-91	41,3	8.507,800	92,24	0,71	Válido	72,24	1,587401052	114,67	134,67	1507829,986	109,6932	13745,88385	
100	-91	42,3	8.713,800	93,35	0,75	Válido	73,35	1,587401052	116,43	136,43	1578411,18	109,6932	14389,32568	
100	-91	42,7	8.796,200	93,79	0,78	Válido	73,79	1,587401052	117,13	137,13	1607008,779	109,6932	14650,03099	
100	-91	45,6	9.393,600	96,92	0,81	Válido	76,92	1,587401052	122,10	142,10	1820487,681	109,6932	16596,17626	
100	-91	46,6	9.599,600	97,98	0,85	Válido	77,98	1,587401052	123,78	143,78	1896569,329	109,6932	17289,76207	
100	-91	47,6	9.805,600	99,02	0,88	Válido	79,02	1,587401052	125,44	145,44	1973896,223	109,6932	17994,69997	
100	-91	49,2	10.135,200	100,67	0,91	Válido	80,67	1,587401052	128,06	148,06	2100179,477	109,6932	19145,94047	
100	-91	53,7	11.062,200	105,18	0,94	Válido	85,18	1,587401052	135,21	155,21	2471877,328	109,6932	22534,46274	
100	-91	126,4	26.038,400	161,36	0,98	Válido	141,36	1,587401052	224,40	244,40	11299992,8	109,6932	103014,5241	
			Σ de X			30	Numerador	221,82	Numerador		221,822222			
			X				Denominador	(29.576.064,29)	Denominador		46,46			
			y				Raiz	5438,388023	Valor de a		4,77			
			b				Valor de R	0,04						
			a				>0 e <1							
			Reta											
200	-91	13,8	2.842,800	53,32	0,04	Válido	33,32	2	66,64	86,64	295885,3159	109,6932	2697,389774	
200	-91	20,4	4.202,400	64,83	0,09	Válido	44,83	2	89,65	109,65	720572,4337	109,6932	6568,979971	
200	-91	23	4.738,000	68,83	0,15	Válido	48,83	2	97,67	117,67	931609,0815	109,6932	8492,860829	
200	-91	23,2	4.779,200	69,13	0,20	Válido	49,13	2	98,26	118,26	948804,8719	109,6932	8649,623421	
200	-91	25,4	5.232,400	72,34	0,26	Válido	52,34	2	104,67	124,67	1146766,226	109,6932	10454,30551	
200	-91	25,6	5.273,600	72,62	0,31	Válido	52,62	2	105,24	125,24	1165551,693	109,6932	10625,56013	
200	-91	25,8	5.314,800	72,90	0,36	Válido	52,90	2	105,81	125,81	1184466,769	109,6932	10797,99631	
200	-91	30,2	6.221,200	78,87	0,42	Válido	58,87	2	117,75	137,75	1632576,502	109,6932	14883,11492	
200	-91	33,9	6.983,400	83,57	0,47	Válido	63,57	2	127,13	147,13	2054848,468	109,6932	18732,68778	
200	-91	36,9	7.601,400	87,19	0,53	Válido	67,19	2	134,37	154,37	2426199,45	109,6932	22118,04788	
200	-91	38,8	7.992,800	89,40	0,58	Válido	69,40	2	138,80	158,80	2674327,534	109,6932	24380,06672	
200	-91	40,9	8.425,400	91,79	0,64	Válido	71,79	2	143,58	163,58	2959930,008	109,6932	26983,71465	
200	-91	44,6	9.187,600	95,85	0,69	Válido	75,85	2	151,70	171,70	3491327,322	109,6932	31828,11079	
200	-91	44,8	9.228,800	96,07	0,74	Válido	76,07	2	152,13	172,13	3521054,497	109,6932	32099,11368	
200	-91	50,7	10.444,200	102,20	0,80	Válido	82,20	2	164,39	184,39	4442790,241	109,6932	40501,96585	
			Σ de X			18	Numerador	(114,59)	Numerador		-114,5870867	<i>oma dos K0</i>		
												1323345,944		

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc) (Kjc)	Cálculo do PF	Limite	Jc - 20	Conv Pol	Mult	Mult + 20 (Kjc)	Kjc-20 ³	r-0,3068	Kjc-20 ³ / r - 0,3068
50	-60	46,7	9.620,200	98,08261824	0,020348837	Válido	78,082618	1,25992105	98,3779343	118,3779343	952123,0917	120,6932	7888,788197
50	-60	48	9.888,000	99,43842316	0,049418605	Válido	79,438423	1,25992105	100,086142	120,0861415	1002586,472	120,6932	8306,901068
50	-60	49,9	10.279,400	101,3873759	0,078488372	Válido	81,387376	1,25992105	102,541668	122,5416681	1078204,487	120,6932	8933,431931
50	-60	52,9	10.897,400	104,3906126	0,10755814	Válido	84,390613	1,25992105	106,325509	126,3255092	1202021,994	120,6932	9959,318287
50	-60	59,4	12.236,400	110,6182625	0,136627907	Válido	90,618263	1,25992105	114,171856	134,1718564	1488254,445	120,6932	12330,88894
50	-60	63,1	12.998,600	114,0114029	0,165697674	Válido	94,011403	1,25992105	118,446945	138,4469455	1661772,612	120,6932	13768,56866
50	-60	68,1	14.028,600	118,4423911	0,194767442	Válido	98,442391	1,25992105	124,029641	144,0296407	1907991,593	120,6932	15808,60888
50	-60	68,2	14.049,200	118,5293213	0,223837209	Válido	98,529321	1,25992105	124,139166	144,1391659	1913050,652	120,6932	15850,52556
50	-60	69,2	14.255,200	119,3951423	0,252906977	Válido	99,395142	1,25992105	125,230032	145,230032	1963927,606	120,6932	16272,06509
50	-60	75,1	15.470,600	124,3808667	0,281976744	Válido	104,38087	1,25992105	131,511651	151,5116512	2274535,353	120,6932	18845,59654
50	-60	76,2	15.697,200	125,2884671	0,311046512	Válido	105,28847	1,25992105	132,655156	152,6551561	2334384,574	120,6932	19341,47553
50	-60	76,5	15.759,000	125,5348557	0,340116279	Válido	105,53486	1,25992105	132,965586	152,9655862	2350811,236	120,6932	19477,57816
50	-60	80,6	16.603,600	128,8549572	0,369186047	Válido	108,85496	1,25992105	137,148652	157,148652	2579732,233	120,6932	21374,29642
50	-60	81,9	16.871,400	129,8899534	0,398255814	Válido	109,88995	1,25992105	138,452665	158,4526655	2654018,609	120,6932	21989,79403
50	-60	82,9	17.077,400	130,6805265	0,427325581	Válido	110,68053	1,25992105	139,448725	159,4487251	2711712,509	120,6932	22467,81516
50	-60	86,1	17.736,600	133,1788271	0,456395349	Válido	113,17883	1,25992105	142,596387	162,5963867	2899516,356	120,6932	24023,85848
50	-60	86,2	17.757,200	133,2561443	0,485465116	Válido	113,25614	1,25992105	142,6938	162,6938003	2905462,758	120,6932	24073,12722
50	-60	94,4	19.446,400	139,4503496	0,514534884	Válido	119,45035	1,25992105	150,49801	170,4980099	3408727,395	120,6932	28242,91174
50	-60	95,1	19.590,600	139,9664245	0,543604651	Válido	119,96642	1,25992105	151,148224	171,1482236	3453099,892	120,6932	28610,55877
50	-60	96,8	19.940,800	141,2118975	0,572674419	Válido	121,2119	1,25992105	152,717421	172,7174212	3561768,966	120,6932	29510,93323
50	-60	97	19.982,000	141,3577023	0,601744186	Válido	121,3577	1,25992105	152,901124	172,9011237	3574637,7	120,6932	29617,55675
50	-60	98,6	20.311,600	142,5187707	0,630813953	Válido	122,51877	1,25992105	154,363978	174,3639782	3678221,575	120,6932	30475,79793
50	-60	109,7	22.598,200	150,326977	0,659883721	Válido	130,32698	1,25992105	164,201702	184,2017016	4427238,926	120,6932	36681,75942
50	-60	112,9	23.257,400	152,5037704	0,688953488	Válido	132,50377	1,25992105	166,94429	186,9442896	4652803,431	120,6932	38550,66757
50	-60	127,4	26.244,400	162,0012346	0,718023256	Válido	142,00123	1,25992105	178,910345	198,9103445	5726725,364	120,6932	47448,61652
50	-60	129,1	26.594,600	163,0785087	0,747093023	Válido	143,07851	1,25992105	180,267625	200,2676249	5858051,836	120,6932	48536,71819
50	-60	129,9	26.759,400	163,5830065	0,776162791	Válido	143,58301	1,25992105	180,903252	200,9032522	5920237,421	120,6932	49051,95505
50	-60	142,3	29.313,800	171,2127332	0,805232558	Válido	151,21273	1,25992105	190,516106	210,5161055	6915046,195	120,6932	57294,41422
50	-60	147,4	30.364,400	174,2538378	0,834302326	Válido	154,25384	1,25992105	194,347657	214,3476573	7340707,678	120,6932	60821,22007
50	-60	147,8	30.446,800	174,4901143	0,863372093	Válido	154,49011	1,25992105	194,645347	214,645347	7374491,501	120,6932	61101,13495
50	-60	163,2	33.619,200	183,3553926	0,89244186	Válido	163,35539	1,25992105	205,814898	225,8148978	8718272,173	120,6932	72234,99064
50	-60	164,7	33.928,200	184,1960912	0,921511628	Válido	164,19609	1,25992105	206,874112	226,8741116	8853570,259	120,6932	73355,99901
50	-60	176,8	36.420,800	190,8423433	0,950581395	Válido	170,84234	1,25992105	215,247865	235,2478645	9972787,258	120,6932	82629,23892
50	-60	198	40.788,000	201,9603922	0,979651163	Válido	181,96039	1,25992105	229,255728	249,2557283	12049265,89	120,6932	99833,84227
				Σ de X	34			Numerador	299,64	Numerador	299,6364641		
				$\frac{X}{y}$				Denominador	(46.950.189,30)	Denominador	58,99		
				$\frac{b}{a}$				Raiz	6852,020819	Valor de a	5,08		
				Reta				Valor de R	0,04				
								>0 e <1					
100	-60	30,4	6.262,400	79,13532713	0,023026316	Válido	59,135327	1,587401052	93,8714805	113,8714805	827181,8607	120,6932	6853,59126
100	-60	57,5	11.845,000	108,8347371	0,055921053	Válido	88,834737	1,587401052	141,016355	161,0163551	2804196,582	120,6932	23234,08926

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc) (Kjc)	Cálculo do PF	Limite	Jc - 20	Conv Pol	Mult	Mult + 20 (Kjc)	Kjc-20 ³	r-0,3068	Kjc-20 ³ / r - 0,3068	
100	-60	63,3	13.039,800	114,1919437	0,088815789	Válido	94,191944	1,587401052	149,52039	169,5203905	3342729,758	120,6932	27696,09024	
100	-60	64	13.184,000	114,8216008	0,121710526	Válido	94,821601	1,587401052	150,519909	170,5199088	3410215,621	120,6932	28255,24239	
100	-60	68,5	14.111,000	118,7897302	0,154605263	Válido	98,78973	1,587401052	156,818922	176,8189216	3856518,236	120,6932	31953,06973	
100	-60	82,8	17.056,800	130,6016845	0,1875	Válido	110,60168	1,587401052	175,56923	195,5692304	5411843,336	120,6932	44839,67064	
100	-60	86,1	17.736,600	133,1788271	0,220394737	Válido	113,17883	1,587401052	179,660189	199,6601893	5799032,713	120,6932	48047,71696	
100	-60	88,3	18.189,800	134,8695666	0,253289474	Válido	114,86957	1,587401052	182,344071	202,3440709	6062823,691	120,6932	50233,34945	
100	-60	89,4	18.416,400	135,7070374	0,286184211	Válido	115,70704	1,587401052	183,673473	203,6734729	6196398,114	120,6932	51340,07644	
100	-60	94,5	19.467,000	139,5241915	0,319078947	Válido	119,52419	1,587401052	189,732827	209,7328272	6830105,859	120,6932	56590,64354	
100	-60	102,2	21.053,200	145,0972088	0,351973684	Válido	125,09721	1,587401052	198,579441	218,5794408	7830740,827	120,6932	64881,37548	
100	-60	106,3	21.897,800	147,9790526	0,384868421	Válido	127,97905	1,587401052	203,154083	223,1540827	8384490,242	120,6932	69469,45016	
100	-60	107,7	22.186,200	148,9503273	0,417763158	Válido	128,95033	1,587401052	204,695885	224,6958852	8576840,576	120,6932	71063,16326	
100	-60	112,3	23.133,800	152,0979947	0,450657895	Válido	132,09799	1,587401052	209,692496	229,6924958	9220376,736	120,6932	76395,16341	
100	-60	113	23.278,000	152,5712948	0,483552632	Válido	132,57129	1,587401052	210,443813	230,4438128	9319840,617	120,6932	77219,2685	
100	-60	115,5	23.793,000	154,2497974	0,516447368	Válido	134,2498	1,587401052	213,10827	233,1082696	9678340,746	120,6932	80189,6109	
100	-60	128,1	26.388,600	162,4456832	0,549342105	Válido	142,44568	1,587401052	226,118427	246,1184274	11561331,91	120,6932	95791,07941	
100	-60	131,1	27.006,600	164,3368492	0,582236842	Válido	144,33685	1,587401052	229,120466	249,1204662	12027951,08	120,6932	99657,23902	
100	-60	132,7	27.336,200	165,3366263	0,615131579	Válido	145,33663	1,587401052	230,707513	250,7075135	12279628,14	120,6932	101742,502	
100	-60	150,2	30.941,200	175,9011086	0,648026316	Válido	155,90111	1,587401052	247,477584	267,4775838	15156802,84	120,6932	125581,2494	
100	-60	153,5	31.621,000	177,8229457	0,680921053	Válido	157,82295	1,587401052	250,52831	270,52831	15724267,6	120,6932	130282,9621	
100	-60	160,8	33.124,800	182,0021978	0,713815789	Válido	162,0022	1,587401052	257,162459	277,1624592	17006804,15	120,6932	140909,3814	
100	-60	168,9	34.793,400	186,5298904	0,746710526	Válido	166,52989	1,587401052	264,349723	284,3497232	18472963,82	120,6932	153057,2047	
100	-60	191,9	39.531,400	198,8250487	0,779605263	Válido	178,82505	1,587401052	283,86707	303,8670705	22874154,36	120,6932	189523,141	
100	-60	225,7	46.494,200	215,6251377	0,8125	Válido	195,62514	1,587401052	310,535549	330,5355493	29945665,77	120,6932	248113,9432	
100	-60	230	47.380,000	217,6694742	0,845394737	Válido	197,66947	1,587401052	313,780731	333,7807313	30894332,23	120,6932	255974,0916	
100	-60	241,9	49.831,400	223,2294783	0,878289474	Válido	203,22948	1,587401052	322,606688	342,6066877	33575315,2	120,6932	278187,2981	
100	-60	265,4	54.672,400	233,8212993	0,911184211	Válido	213,8213	1,587401052	339,420155	359,4201554	39103252,65	120,6932	323988,8631	
100	-60	282,6	58.215,600	241,2790915	0,944078947	Válido	221,27909	1,587401052	351,258663	371,2586626	43339223,96	120,6932	359085,8802	
100	-60	415,3	85.551,800	292,4923931	0,976973684	Válido	272,49239	1,587401052	432,554711	452,5547114	80932534,34	120,6932	670564,1605	
Σ de X							30							
		X					Numerador	324,69		Numerador	324,690949			
		y					Denominador	(32.558.351,72)		Denominador	88,60			
		b					Raiz	5705,992615		Valor de a	3,66			
		a					Valor de R	0,06						
		Reta					>0 e <1							
25	-60	128,7	26.512,200	162,8256737		Válido					2913525,633	120,6932	24139,93194	
25	-60	176	36.256,000	190,4100838		Válido					4948640,098	120,6932	41001,81367	
25	-60	131,7	27.130,200	164,7124768		Válido					3030525,409	120,6932	25109,33018	
25	-60	150,4	30.982,400	176,0181809		Válido					3797743,504	120,6932	31466,0934	
25	-60	133,7	27.542,200	165,9584285		Válido					3109478,344	120,6932	25763,49243	
25	-60	78,7	16.212,200	127,3271377		Válido					1236313,587	120,6932	10243,44029	
25	-60	678,2	139.709,200	373,7769388		Censurado					0	120,6932	2,184139821	
25	-60	46,1	9.496,600	97,45050026		Válido					464593,021	120,6932	3849,37197	
25	-60	369,1	76.034,600	275,7437216		Censurado					0	120,6932	2,184139821	
25	-60	275,9	56.835,400	238,4017617		Válido					10417617,6	120,6932	86314,86781	
25	-60	687,7	141.666,200	376,3857064		Censurado					0	120,6932	2,184139821	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc) (Kjc)	Cálculo do PF	Limite	Jc - 20	Conv Pol	Mult	Mult + 20 (Kjc)	Kjc-20 ³	r-0,3068	Kjc-20 ³ / r - 0,3068	
25	-60	140,7	28.984,200	170,2474669		Válido					3391731,592	120,6932	28102,0935	
25	-60	89,1	18.354,600	135,4791497		Válido					1539964,58	120,6932	12759,33176	
25	-60	87,8	18.086,800	134,4871741		Válido					1500619,23	120,6932	12433,337	
25	-60	219,5	45.217,000	212,6428931		Válido					7149225,171	120,6932	59234,69732	
25	-60	427,1	87.982,600	296,6186103		Censurado					0	120,6932	2,184139821	
25	-60	197,6	40.705,600	201,7562886		Válido					6004382,329	120,6932	49749,13523	
25	-60	64,1	13.204,600	114,9112701		Válido					854974,8815	120,6932	7083,869526	
25	-60	234,5	48.307,000	219,7885347		Válido					7974650,989	120,6932	66073,73894	
25	-60	133,7	27.542,200	165,9584285		Válido					3109478,344	120,6932	25763,49243	
25	-60	38,4	7.910,400	88,9404295		Válido					327658,8889	120,6932	2714,808199	
25	-60	116,3	23.957,800	154,783074		Válido					2448533,619	120,6932	20287,25412	
25	-60	166,1	34.216,600	184,9772959		Válido					4490270,898	120,6932	37204,00899	
25	-60	217,1	44.722,600	211,4771855		Válido					7020226,2	120,6932	58165,8801	
25	-60	129	26.574,000	163,0153367		Válido					2925147,962	120,6932	24236,2284	
25	-60	373,6	76.961,600	277,4195379		Censurado					0	120,6932	2,184139821	
25	-60	164,6	33.907,600	184,140164		Válido					4422263,222	120,6932	36640,53337	
25	-60	77,7	16.006,200	126,5156117		Válido					1208480,918	120,6932	10012,83351	
25	-60	200,2	41.241,200	203,0792949		Válido					6136456,969	120,6932	50843,43583	
25	-60	63,6	13.101,600	114,4622208		Válido					842896,8976	120,6932	6983,797742	
25	-60	55	11.330,000	106,4424727		Válido					645924,1833	120,6932	5351,786043	
			T. Válidos				121					Soma dos K0		6536474,169
			T. Censurados									Somatoria ^{1/3}		186,9739845
												anterior +20		206,9739845
												Kjc Médio		190,5950634
														160,5950634
														2,294215192
												LN		0,830390821
												T - T0		43,70346889
25	-40	155,4	32.012,400	178,9200939		Válido					4013621,727	76,6932	52333,4758	
25	-40	203,4	41.900,400	204,695872		Válido					6300449,96	76,6932	82151,35058	
25	-40	275,9	56.835,400	238,4017617		Válido					10417617,6	76,6932	135834,958	
25	-40	349,2	71.935,200	268,2073824		Censurado					0	76,6932	3,430412845	
25	-40	165,5	34.093,000	184,6428986		Válido					4463021,82	76,6932	58193,18818	
25	-40	311,7	64.210,200	253,3973165		Válido					12714157,15	76,6932	165779,4583	
25	-40	254,5	52.427,000	228,9694303		Válido					9125323,637	76,6932	118984,7814	
25	-40	548,6	113.011,600	336,1719798		Censurado					0	76,6932	3,430412845	
25	-40	773,9	159.423,400	399,2785995		Censurado					0	76,6932	3,430412845	
25	-40	758,7	156.292,200	395,3380832		Censurado					0	76,6932	3,430412845	
25	-40	139,3	28.695,800	169,3983471		Válido					3334551,105	76,6932	43479,0973	
25	-40	1544,1	318.084,600	563,9898935		Censurado					0	76,6932	3,430412845	
25	-40	136,6	28.139,600	167,7486215		Válido					3225301,454	76,6932	42054,59485	
25	-40	1433,6	295.321,600	543,4350007		Censurado					0	76,6932	3,430412845	
25	-40	1337,1	275.442,600	524,826257		Censurado					0	76,6932	3,430412845	
25	-40	483,2	99.539,200	315,498336		Censurado					0	76,6932	3,430412845	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc) (Kjc)	Cálculo do PF	Limite	Jc - 20	Conv Pol	Mult	Mult + 20 (Kjc)	Kjc-20 ³	r-0,3068	Kjc-20 ³ / r - 0,3068
25	-40	1573,3	324.099,800	569,2976374		Censurado					0	76,6932	3,430412845
25	-40	619,9	127.699,400	357,3505282		Censurado					0	76,6932	3,430412845
25	-40	562,8	115.936,800	340,4949339		Censurado					0	76,6932	3,430412845
25	-40	264,8	54.548,800	233,5568453		Válido					9739585,859	76,6932	126994,1254
25	-40	1337,2	275.463,200	524,8458821		Censurado					0	76,6932	3,430412845
25	-40	1174	241.844,000	491,7763719		Censurado					0	76,6932	3,430412845
25	-40	1714,3	353.145,800	594,2607172		Censurado					0	76,6932	3,430412845
25	-40	61,6	12.689,600	112,6481247		Válido					795261,3929	76,6932	10369,38598
25	-40	251	51.706,000	227,3895336		Válido					8919910,666	76,6932	116306,4087
25	-40	113,2	23.319,200	152,706254		Válido					2337083,182	76,6932	30473,14732
25	-40	233,2	48.039,200	219,1784661		Válido					7901820,328	76,6932	103031,5638
25	-40	1127,9	232.347,400	482,0242732		Censurado					0	76,6932	3,430412845
25	-40	283	58.298,000	241,4497877		Válido					10859899,47	76,6932	141601,8561
25	-40	195,2	40.211,200	200,5273049		Válido					5883404,328	76,6932	76713,5069
50	-40	187	38.522,000	196,2702219		Válido	176,27022	1,25992105	222,086563	242,086563	10953851,51	76,6932	142826,8935
50	-40	107,5	22.145,000	148,8119619		Válido	128,81196	1,189207115	153,184102	173,1841016	3594521,464	76,6932	46868,84188
50	-40	245	50.470,000	224,6552915		Válido	204,65529	1,189207115	243,377529	263,3775288	14415889,05	76,6932	187968,282
50	-40	119	24.514,000	156,5694734		Válido	136,56947	1,189207115	162,409389	182,4093895	4283841,573	76,6932	55856,8631
50	-40	313,1	64.498,600	253,9657457		Válido	233,96575	1,189207115	278,233729	298,2337295	21539188,22	76,6932	280848,7352
50	-40	205,3	42.291,800	205,6497022		Válido	185,6497	1,189207115	220,775947	240,7759467	10761065,31	76,6932	140313,1609
50	-40	217,1	44.722,600	211,4771855		Válido	191,47719	1,189207115	227,706031	247,7060314	11806566,09	76,6932	153945,4097
50	-40	308,7	63.592,200	252,1749393		Válido	232,17494	1,189207115	276,10409	296,1040897	21048372,39	76,6932	274449,0044
50	-40	274,2	56.485,200	237,6661524		Válido	217,66615	1,189207115	258,850137	278,8501371	17343837,6	76,6932	226145,7026
50	-40	455,2	93.771,200	306,2208353		Válido	286,22084	1,189207115	340,375854	360,3758539	39434490,26	76,6932	514184,9637
50	-40	167	34.402,000	185,4777615		Válido	165,47776	1,189207115	196,787331	216,7873313	7620639,343	76,6932	99365,25459
50	-40	49,1	10.114,600	100,5713677		Válido	80,571368	1,189207115	95,8160437	115,8160437	879659,7167	76,6932	11469,85282
50	-40	93,8	19.322,800	139,0064747		Válido	119,00647	1,189207115	141,523346	161,5233464	2834550,949	76,6932	36959,61245
50	-40	107,4	22.124,400	148,7427309		Válido	128,74273	1,189207115	153,101772	173,1017716	3588728,87	76,6932	46793,31244
50	-40	167	34.402,000	185,4777615		Válido	165,47776	1,189207115	196,787331	216,7873313	7620639,343	76,6932	99365,25459
50	-40	212,8	43.836,800	209,3723955		Válido	189,3724	1,189207115	225,203	245,2030001	11421483,47	76,6932	148924,3306
50	-40	122,7	25.276,200	158,9849049		Válido	138,9849	1,189207115	165,281838	185,2818378	4515183,447	76,6932	58873,32184
50	-40	219,3	45.175,800	212,545995		Válido	192,546	1,189207115	228,977067	248,9770672	12005381,51	76,6932	156537,7571
50	-40	168,9	34.793,400	186,5298904		Válido	166,52989	1,189207115	198,03853	218,0385305	7766924,529	76,6932	101272,6621
50	-40	272,7	56.176,200	237,0151894		Válido	217,01519	1,189207115	258,076007	278,0760073	17188694,52	76,6932	224122,7973
50	-40	60,6	12.483,600	111,7300318		Válido	91,730032	1,189207115	109,086006	129,0860064	1298096,947	76,6932	16925,8415
50	-40	271,9	56.011,400	236,667277		Válido	216,66728	1,189207115	257,662267	277,6622674	17106157,75	76,6932	223046,6032
50	-40	386,6	79.639,600	282,2048901		Válido	262,20489	1,189207115	311,815921	331,8159209	30317602,72	76,6932	395310,1803
50	-40	308,8	63.612,800	252,2157806		Válido	232,21578	1,189207115	276,152659	296,1526585	21059482,05	76,6932	274593,863
50	-40	349,4	71.976,400	268,2841777		Válido	248,28418	1,189207115	295,261311	315,2613107	25740657,13	76,6932	335631,544
50	-40	166,5	34.299,000	185,199892		Válido	165,19989	1,189207115	196,456887	216,456887	7582314,148	76,6932	98865,53368
50	-40	137,8	28.386,800	168,4838271		Válido	148,48383	1,189207115	176,578024	196,5780237	5505667,188	76,6932	71788,20531
50	-40	313,1	64.498,600	253,9657457		Válido	233,96575	1,189207115	278,233729	298,2337295	21539188,22	76,6932	280848,7352
50	-40	139,9	28.819,400	169,7627757		Válido	149,76278	1,189207115	178,098958	198,0989584	5649163,422	76,6932	73659,24778
50	-40	50,6	10.423,600	102,0960332		Válido	82,096033	1,189207115	97,6291868	117,6291868	930548,5055	76,6932	12133,38999

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc) (Kjc)	Cálculo do PF	Limite	Jc - 20	Conv Pol	Mult	Mult + 20 (Kjc)	Kjc-20 ³	r-0,3068	Kjc-20 ³ / r - 0,3068
50	-40	251,8	51.870,800	227,7516191		Válido	207,75162	1,189207115	247,059704	267,0597036	15080153,01	76,6932	196629,597
50	-40	210	43.260,000	207,9903844		Válido	187,99038	1,189207115	223,559503	243,5595027	11173247,13	76,6932	145687,5854
100	-40	75,5	15.553,000	124,7116675		Válido	104,71167	1,587401052	166,219411	186,2194111	4592458,26	76,6932	59880,90547
100	-40	79,1	16.294,600	127,6503036		Válido	107,6503	1,587401052	170,884205	190,8842051	4990060,003	76,6932	65065,22094
100	-40	187,7	38.666,200	196,6372294		Válido	176,63723	1,587401052	280,394124	300,3941238	22044828,46	76,6932	287441,761
100	-40	214,1	44.104,600	210,0109521		Válido	190,01095	1,587401052	301,623585	321,6235852	27440744,72	76,6932	357798,9277
100	-40	91,5	18.849,000	137,2916603		Válido	117,29166	1,587401052	186,188905	206,188905	6454481,993	76,6932	84159,76896
100	-40	167,8	34.566,800	185,9214888		Válido	165,92149	1,587401052	263,383946	283,3839459	18271234,82	76,6932	238238,0032
100	-40	142,5	29.355,000	171,3330091		Válido	151,33301	1,587401052	240,226178	260,2261778	13863120,37	76,6932	180760,7502
100	-40	153,4	31.600,400	177,7650134		Válido	157,76501	1,587401052	250,436348	270,4363483	15706958,19	76,6932	204802,4882
100	-40	110,9	22.845,400	151,1469484		Válido	131,14695	1,587401052	208,182804	228,1828038	9022659,329	76,6932	117646,145
100	-40	112,4	23.154,400	152,1656992		Válido	132,1657	1,587401052	209,79997	229,7999699	9234561,214	76,6932	120409,1264
100	-40	99,6	20.517,600	143,2396593		Válido	123,23966	1,587401052	195,630765	215,6307648	7487062,5	76,6932	97623,55072
100	-40	108,2	22.289,200	149,2956798		Válido	129,29568	1,587401052	205,244098	225,2440981	8645936,326	76,6932	112734,0667
100	-40	92,1	18.972,600	137,7410614		Válido	117,74106	1,587401052	186,902285	206,9022848	6528957,342	76,6932	85130,85048
100	-40	160,5	33.063,000	181,8323404		Válido	161,83234	1,587401052	256,892827	276,8928273	16953365,91	76,6932	221054,3557
100	-40	96	19.776,000	140,6271666		Válido	120,62717	1,587401052	191,483691	211,4836912	7020941,791	76,6932	91545,8188
100	-40	166,8	34.360,800	185,3666637		Válido	165,36666	1,587401052	262,503216	282,5032159	18088555,41	76,6932	235856,0526
100	-40	141,2	29.087,200	170,5496995		Válido	150,5497	1,587401052	238,982751	258,9827514	13648963,43	76,6932	177968,3653
100	-40	186,7	38.460,200	196,1127227		Válido	176,11272	1,587401052	279,561521	299,5615213	21849031,22	76,6932	284888,7674
100	-40	81	16.686,000	129,1743008		Válido	109,1743	1,587401052	173,3034	193,3034	5205006,18	76,6932	67867,89676
100	-40	95,6	19.693,600	140,3338876		Válido	120,33389	1,587401052	191,01814	211,0181397	6969856,453	76,6932	90879,71884
100	-40	86,1	17.736,600	133,1788271		Válido	113,17883	1,587401052	179,660189	199,6601893	5799032,713	76,6932	75613,38831
100	-40	63,5	13.081,000	114,3721994		Válido	94,372199	1,587401052	149,806529	169,8065286	3361957,52	76,6932	43836,4486
100	-40	40	8.240,000	90,77444574		Válido	70,774446	1,587401052	112,34743	132,3474296	1418043,071	76,6932	18489,81489
100	-40	94,8	19.528,800	139,7454829		Válido	119,74548	1,587401052	190,084106	210,0841056	6868112,666	76,6932	89553,0851
100	-40	272,3	56.093,800	236,8412971		Válido	216,8413	1,587401052	344,214103	364,2141031	40783639,63	76,6932	531776,476
100	-40	282,2	58.133,200	241,1082744		Válido	221,10827	1,587401052	350,987507	370,9875074	43238933,87	76,6932	563790,9733
100	-40	175,4	36.132,400	190,085244		Válido	170,08524	1,587401052	269,993495	289,9934953	19681577,46	76,6932	256627,4123
100	-40	102,6	21.135,600	145,3808791		Válido	125,38088	1,587401052	199,029739	219,0297393	7884132,65	76,6932	102800,9348
100	-40	124	25.544,000	159,8249042		Válido	139,8249	1,587401052	221,9582	241,9582	10934868,95	76,6932	142579,3806
100	-40	96,4	19.858,400	140,9198354		Válido	120,91984	1,587401052	191,948274	211,9482739	7072169,044	76,6932	92213,76921
				Válidos		77						Somatoria	11535598,92
				Censurados		15						Somatoria ^{1/3}	225,9505395
												K0	245,9505395
												Kjc Médio	226,1572722
													196,1572722
													2,802246746
													Ln
													T-T0
25	-20	258,8	53.312,800	230,8956474		Válido					9380000,249	62,6932	149617,5063
25	-20	723,7	149.082,200	386,1116419		Censurado					0	62,6932	4,073937366
25	-20	1133,7	233.542,200	483,2620407		Censurado					0	62,6932	4,073937366
25	-20	914,9	188.469,400	434,1306255		Censurado					0	62,6932	4,073937366

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc) (Kjc)	Cálculo do PF	Limite	Jc - 20	Conv Pol	Mult	Mult + 20 (Kjc)	Kjc-20 ³	r-0,3068	Kjc-20 ³ / r - 0,3068
25	-20	1554,5	320.227,000	565,8860309		Censurado					0	62,6932	4,073937366
25	-20	1497,2	308.423,200	555,3586229		Censurado					0	62,6932	4,073937366
25	-20	1499	308.794,000	555,6923609		Censurado					0	62,6932	4,073937366
25	-20	1575	324.450,000	569,6051264		Censurado					0	62,6932	4,073937366
25	-20	1480,1	304.900,600	552,178051		Censurado					0	62,6932	4,073937366
25	-20	1560,5	321.463,000	566,9770718		Censurado					0	62,6932	4,073937366
25	-20	78,9	16.253,400	127,488823		Válido					1241909,424	62,6932	19809,31623
25	-20	102,7	21.156,200	145,4517102		Válido					1974375,524	62,6932	31492,65827
25	-20	772,5	159.135,000	398,9172847		Censurado					0	62,6932	4,073937366
25	-20	798,3	164.449,800	405,5241053		Censurado					0	62,6932	4,073937366
25	-20	1340	276.040,000	525,3950894		Censurado					0	62,6932	4,073937366
25	-20	1348,6	277.811,600	527,0783623		Censurado					0	62,6932	4,073937366
25	-20	1361,1	280.386,600	529,5154389		Censurado					0	62,6932	4,073937366
25	-20	1368,5	281.911,000	530,9529169		Censurado					0	62,6932	4,073937366
25	-20	1368,6	281.931,600	530,9723157		Censurado					0	62,6932	4,073937366
25	-20	1371,1	282.446,600	531,4570538		Censurado					0	62,6932	4,073937366
25	-20	1381,3	284.547,800	533,4302204		Censurado					0	62,6932	4,073937366
25	-20	1391	286.546,000	535,2999159		Censurado					0	62,6932	4,073937366
25	-20	1408,2	290.089,200	538,5992945		Censurado					0	62,6932	4,073937366
25	-20	1436,3	295.877,800	543,9465047		Censurado					0	62,6932	4,073937366
25	-20	1459,7	300.698,200	548,3595536		Censurado					0	62,6932	4,073937366
25	-20	1472,5	303.335,000	550,7585678		Censurado					0	62,6932	4,073937366
25	-20	1473,7	303.582,200	550,9829398		Censurado					0	62,6932	4,073937366
25	-20	1496,6	308.299,600	555,2473323		Censurado					0	62,6932	4,073937366
25	-20	1524,5	314.047,000	560,398965		Censurado					0	62,6932	4,073937366
25	-20	1547,8	318.846,800	564,6652105		Censurado					0	62,6932	4,073937366
25	-20	1553,3	319.979,800	565,6675702		Censurado					0	62,6932	4,073937366
50	-20	195,2	40.211,200	200,5273049		Válido	180,5273	1,25992105	227,450151	247,4501515	11766808,66	62,6932	187688,755
50	-20	180,6	37.203,600	192,8823476		Válido	172,88235	1,25992105	217,818109	237,8181088	10334321,05	62,6932	164839,5846
50	-20	328,8	67.732,800	260,2552593		Válido	240,25526	1,25992105	302,702659	322,7026586	27736311,48	62,6932	442413,3954
50	-20	168,1	34.628,600	186,0876138		Válido	166,08761	1,25992105	209,257281	229,2572807	9163085,358	62,6932	146157,5635
50	-20	362,3	74.633,800	273,191874		Válido	253,19187	1,25992105	319,001772	339,0017717	32462299,86	62,6932	517796,1862
50	-20	326,5	67.259,000	259,3434017		Válido	239,3434	1,25992105	301,55379	321,5537899	27421699,87	62,6932	437395,1222
50	-20	655,6	135.053,600	367,4963945		Censurado	347,49639	1,25992105	437,818022	457,8180222	0	62,6932	5,761417506
50	-20	648,8	133.652,800	365,5855577		Censurado	345,58556	1,25992105	435,410519	455,4105187	0	62,6932	5,761417506
50	-20	1017	209.502,000	457,7138844		Censurado	437,71388	1,25992105	551,484937	571,4849368	0	62,6932	5,761417506
50	-20	486,8	100.280,800	316,6714386		Censurado	296,67144	1,25992105	373,78259	393,7825903	0	62,6932	5,761417506
50	-20	1619	333.514,000	577,5067099		Censurado	557,50671	1,25992105	702,414439	722,4144393	0	62,6932	5,761417506
50	-20	256	52.736,000	229,6432015		Válido	209,6432	1,25992105	264,133883	284,1338826	18427751,43	62,6932	293935,4098
50	-20	695	143.170,000	378,3781178		Censurado	358,37812	1,25992105	451,528134	471,5281344	0	62,6932	5,761417506
50	-20	417	85.902,000	293,0904297		Censurado	273,09043	1,25992105	344,072381	364,0723809	0	62,6932	0
50	-20	1582	325.892,000	570,8695122		Censurado	550,86951	1,25992105	694,052094	714,0520942	0	62,6932	5,761417506
50	-20	807	166.242,000	407,7278504		Censurado	387,72785	1,25992105	488,50648	508,5064804	0	62,6932	5,761417506
50	-20	447	92.082,000	303,4501607		Censurado	283,45016	1,25992105	357,124824	377,124824	0	62,6932	0

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc) (Kjc)	Cálculo do PF	Limite	Jc - 20	Conv Pol	Mult	Mult + 20 (Kjc)	Kjc-20 ³	r-0,3068	Kjc-20 ³ / r - 0,3068
50	-20	502	103.412,000	321,5773624		Censurado	301,57736	1,25992105	379,963667	399,963667	0	62,6932	5,761417506
50	-20	380	78.280,000	279,7856322		Válido	259,78563	1,25992105	327,309387	347,3093865	35065124,1	62,6932	559313,0371
50	-20	291	59.946,000	244,8387224		Válido	224,83872	1,25992105	283,279039	303,2790392	22732297,04	62,6932	362595,8963
50	-20	259	53.354,000	230,984848		Válido	210,98485	1,25992105	265,824251	285,8242512	18783814,79	62,6932	299614,8672
50	-20	480	98.880,000	314,4519041		Censurado	294,4519	1,25992105	370,986152	390,9861522	0	62,6932	5,761417506
50	-20	1266	260.796,000	510,6818971		Censurado	490,6819	1,25992105	618,220451	638,2204509	0	62,6932	5,761417506
50	-20	330	67.980,000	260,7297451		Válido	240,72975	1,25992105	303,300473	323,3004732	27900967,54	62,6932	445039,7736
50	-20	162	33.372,000	182,6800482		Válido	162,68005	1,25992105	204,964017	224,9640171	8610589,251	62,6932	137344,8676
50	-20	392	80.752,000	284,1689638		Válido	264,16896	1,25992105	332,832038	352,8320382	36870189,85	62,6932	588105,0871
50	-20	555	114.330,000	338,127195		Censurado	318,1272	1,25992105	400,81515	420,8151495	0	62,6932	5,761417506
50	-20	820	168.920,000	410,9987835		Censurado	390,99878	1,25992105	492,627598	512,6275978	0	62,6932	5,761417506
50	-20	512	105.472,000	324,7645301		Censurado	304,76453	1,25992105	383,979247	403,9792467	0	62,6932	5,761417506
50	-20	139	28.634,000	169,2158385		Válido	149,21584	1,25992105	188,000176	208,0001759	6644690,652	62,6932	105987,4221
100	-20	193	39.758,000	199,3940822		Válido	179,39408	1,587401052	284,770355	304,7703547	23093211,27	62,6932	368352,7283
100	-20	58,6	12.071,600	109,8708333		Válido	89,870833	1,587401052	142,661055	162,6610552	2903463,002	62,6932	46312,24762
100	-20	186,1	38.336,600	195,7973442		Válido	175,79734	1,587401052	279,060889	299,0608891	21731861,12	62,6932	346638,2497
100	-20	188,4	38.810,400	197,0035533		Válido	177,00355	1,587401052	280,975627	300,9756267	22182267,87	62,6932	353822,5497
100	-20	191,7	39.490,200	198,721413		Válido	178,72141	1,587401052	283,702559	303,7025591	22834408,16	62,6932	364224,6394
100	-20	130,8	26.944,800	164,1487131		Válido	144,14871	1,587401052	228,821819	248,8218188	11980978,8	62,6932	191104,9172
100	-20	373,5	76.941,000	277,3824075		Válido	257,38241	1,587401052	408,569104	428,5691045	68201914,82	62,6932	1087867,82
100	-20	371,9	76.611,400	276,7876442		Válido	256,78764	1,587401052	407,624977	427,6249766	67730200,4	62,6932	1080343,648
100	-20	315,9	65.075,400	255,0988044		Válido	235,0988	1,587401052	373,196089	393,1960894	51977005,2	62,6932	829069,2643
100	-20	334,9	68.989,400	262,6583332		Válido	242,65833	1,587401052	385,196093	405,1960934	57153867,25	62,6932	911643,8027
100	-20	133,4	27.480,400	165,7721328		Válido	145,77213	1,587401052	231,398837	251,3988369	12390348,31	62,6932	197634,6447
100	-20	112,2	23.113,200	152,0302601		Válido	132,03026	1,587401052	209,584974	229,5849738	9206200,484	62,6932	146845,2796
100	-20	212,5	43.775,000	209,2247595		Válido	189,22476	1,587401052	300,375582	320,3755823	27101534,24	62,6932	432288,2584
100	-20	231,2	47.627,200	218,2365689		Válido	198,23657	1,587401052	314,680938	334,680938	31160994,39	62,6932	497039,4618
100	-20	247,3	50.943,800	225,7073326		Válido	205,70733	1,587401052	326,540036	346,5400362	34818440,04	62,6932	555378,2554
100	-20	212,3	43.733,800	209,1262776		Válido	189,12628	1,587401052	300,219252	320,2192521	27059241,34	62,6932	431613,6573
100	-20	224,4	46.226,400	215,0032558		Válido	195,00326	1,587401052	309,548373	329,5483734	29660985,64	62,6932	473113,2825
100	-20	100,6	20.723,600	143,956938		Válido	123,95694	1,587401052	196,769374	216,7693738	7618553,304	62,6932	121521,2065
100	-20	123,7	25.482,200	159,6314505		Válido	139,63145	1,587401052	221,651111	241,6511115	10889545,16	62,6932	173695,7941
100	-20	82,8	17.056,800	130,6016845		Válido	110,60168	1,587401052	175,56923	195,5692304	5411843,336	62,6932	86322,65279
100	-20	223	45.938,000	214,3315189		Válido	194,33152	1,587401052	308,482058	328,4820576	29355516,55	62,6932	468240,8388
100	-20	74,4	15.326,400	123,7998384		Válido	103,79984	1,587401052	164,771973	184,7719727	4473526,601	62,6932	71355,8504
100	-20	683,1	140.718,600	375,1247792		Censurado	355,12478	1,587401052	563,725448	583,7254481	0	62,6932	8,14787473
100	-20	288,5	59.431,000	243,7847411		Válido	223,78474	1,587401052	355,236133	375,2361335	44828210,55	62,6932	715041,034
100	-20	299,8	61.758,800	248,5131787		Válido	228,51318	1,587401052	362,74206	382,7420603	47730254,07	62,6932	761330,6398
100	-20	301,3	62.067,800	249,1341004		Válido	229,1341	1,587401052	363,727712	383,7277121	48120393,76	62,6932	767553,6383
100	-20	384,1	79.124,600	281,2909526		Válido	261,29095	1,587401052	414,773533	434,773533	71356429	62,6932	1138184,508
100	-20	324,6	66.867,600	258,5877027		Válido	238,5877	1,587401052	378,73437	398,7343703	54325553,26	62,6932	866530,2338
100	-20	588,7	121.272,200	348,2415828		Censurado	328,24158	1,587401052	521,051034	541,0510339	0	62,6932	0
100	-20	318,2	65.549,200	256,02578		Válido	236,02578	1,587401052	374,667571	394,6675714	52594255,96	62,6932	838914,8419

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc) (Kjc)	Cálculo do PF	Limite	Jc - 20	Conv Pol	Mult	Mult + 20 (Kjc)	Kjc-20 ³	r-0,3068	Kjc-20 ³ / r - 0,3068
200	-20	117	24.102,000	155,2481884		Válido	135,24819	2	270,496377	290,4963768	19791757,3	62,6932	315692,249
200	-20	234	48.204,000	219,5540936		Válido	199,55409	2	399,108187	419,1081871	63572883,51	62,6932	1014031,562
200	-20	179	36.874,000	192,0260399		Válido	172,02604	2	344,05208	364,0520798	40726075,55	62,6932	649609,137
200	-20	175	36.050,000	189,8683755		Válido	169,86838	2	339,736751	359,7367509	39212775,89	62,6932	625470,9584
200	-20	162	33.372,000	182,6800482		Válido	162,68005	2	325,360096	345,3600963	34442357	62,6932	549379,4702
200	-20	166	34.196,000	184,921605		Válido	164,92161	2	329,84321	349,84321	35885801,05	62,6932	572403,4034
200	-20	162	33.372,000	182,6800482		Válido	162,68005	2	325,360096	345,3600963	34442357	62,6932	549379,4702
200	-20	179	36.874,000	192,0260399		Válido	172,02604	2	344,05208	364,0520798	40726075,55	62,6932	649609,137
200	-20	199	40.994,000	202,4697508		Válido	182,46975	2	364,939502	384,9395017	48602949,33	62,6932	775250,7342
200	-20	239	49.234,000	221,8873588		Válido	201,88736	2	403,774718	423,7747176	65829016,43	62,6932	1050018,446
200	-20	112	23.072,000	151,8947004		Válido	131,8947	2	263,789401	283,7894007	18355745,34	62,6932	292786,8627
200	-20	236	48.616,000	220,4903626		Válido	200,49036	2	400,980725	420,9807252	64471903,23	62,6932	1028371,549
200	-20	125	25.750,000	160,4680654		Válido	140,46807	2	280,936131	300,9361307	22172914,89	62,6932	353673,3632
200	-20	168	34.608,000	186,0322553		Válido	166,03226	2	332,064511	352,0645105	36615703,97	62,6932	584045,861
200	-20	187	38.522,000	196,2702219		Válido	176,27022	2	352,540444	372,5404438	43815406,03	62,6932	698886,0998
						Válidos	60					Somatoria	28919941,57
						Censurados	46					Somatoria ^{1/3}	306,9487038
										K0	326,9487038		
										Kjc Médio	300,0599973		
											270,0599973		
											3,857999962		
										Ln	1,350148905		
										T-T0	71,05833685		

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{1/3,5}	r-0,3068	Kjc-20 ^{3,5} / r - 0,3068
25	-91	76,8	15.820,800	125,78	Válido					12173722,95	109,6932	110979,7413
25	-91	70,6	14.543,600	120,60	Válido					10210460,32	109,6932	93081,98067
25	-91	23,7	4.882,200	69,87	Válido					876034,7745	109,6932	7986,226808
25	-91	42,3	8.713,800	93,35	Válido					3379508,293	109,6932	30808,73101
25	-91	77,2	15.903,200	126,11	Válido					12305999,11	109,6932	112185,615
25	-91	68,5	14.111,000	118,79	Válido					9582775,143	109,6932	87359,79206
25	-91	52	10.712,000	103,50	Válido					5319620,837	109,6932	48495,44764
25	-91	29,4	6.056,400	77,82	Válido					1470106,867	109,6932	13401,98724
25	-91	46,3	9.537,800	97,66	Válido					4127844,789	109,6932	37630,81749
25	-91	124,3	25.605,800	160,02	Válido					32482159,21	109,6932	296118,2572
25	-91	39,7	8.178,200	90,43	Válido					2932414,15	109,6932	26732,87086
25	-91	63,3	13.039,800	114,19	Válido					8110509,843	109,6932	73938,12782
25	-91	71,4	14.708,400	121,28	Válido					10454560,93	109,6932	95307,28372
25	-91	76	15.656,000	125,12	Válido					11911204,56	109,6932	108586,5355
25	-91	55,9	11.515,400	107,31	Válido					6219006,782	109,6932	56694,55155
25	-91	21,3	4.387,800	66,24	Válido					672322,8509	109,6932	6129,120592
25	-91	76,5	15.759,000	125,53	Válido					12074960,61	109,6932	110079,3906
25	-91	23,1	4.758,600	68,98	Válido					822520,2902	109,6932	7498,370821
25	-91	70,2	14.461,200	120,25	Válido					10089439,62	109,6932	91978,71533
25	-91	38,6	7.951,600	89,17	Válido					2752647,172	109,6932	25094,0548
25	-91	112,8	23.236,800	152,44	Válido					26731521,23	109,6932	243693,5127
25	-91	19,9	4.099,400	64,03	Válido					566241,2875	109,6932	5162,045482
25	-91	77	15.862,000	125,94	Válido					12239776,34	109,6932	111581,9061
25	-91	47,3	9.743,800	98,71	Válido					4326313,504	109,6932	39440,12485
25	-91	48,9	10.073,400	100,37	Válido					4653282,921	109,6932	42420,88772
25	-91	93,9	19.343,400	139,08	Válido					18426503,74	109,6932	167982,1879
25	-91	29,1	5.994,600	77,42	Válido					1434988,03	109,6932	13081,83215
25	-91	56,6	11.659,600	107,98	Válido					6387595,697	109,6932	58231,46464
25	-91	51,4	10.588,400	102,90	Válido					5187283,284	109,6932	47289,01412
25	-91	76,6	15.779,600	125,62	Válido					12107839,01	109,6932	110379,1212
25	-91	59,4	12.236,400	110,62	Válido					7083616,78	109,6932	64576,62626
50	-91	22,4	4.614,400	67,93	Válido	47,93	1,219014	58,43	78,43	1524530,716	109,6932	13898,1333
50	-91	31,7	6.530,200	80,81	Válido	60,81	1,219014	74,13	94,13	3506984,376	109,6932	31970,84574
50	-91	14,9	3.069,400	55,40	Válido	35,40	1,219014	43,16	63,16	528000,6001	109,6932	4813,430551
50	-91	46,5	9.579,000	97,87	Válido	77,87	1,219014	94,93	114,93	8334351,03	109,6932	75978,73916
50	-91	24,6	5.067,600	71,19	Válido	51,19	1,219014	62,40	82,40	1919071,543	109,6932	17494,8998
50	-91	58,7	12.092,200	109,96	Válido	89,96	1,219014	109,67	129,67	13812737,68	109,6932	125921,5492
50	-91	41,6	8.569,600	92,57	Válido	72,57	1,219014	88,47	108,47	6512153,437	109,6932	59366,97477

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{1/3,5}	r-0,3068	Kjc-20 ^{3,5} / r - 0,3068
50	-91	30,4	6.262,400	79,14	Válido	59,14	1,219014	72,09	92,09	3180493,471	109,6932	28994,44515
50	-91	46,1	9.496,600	97,45	Válido	77,45	1,219014	94,41	114,41	8177391,509	109,6932	74547,84352
50	-91	48,7	10.032,200	100,16	Válido	80,16	1,219014	97,72	117,72	9223558,024	109,6932	84085,04833
50	-91	30,2	6.221,200	78,87	Válido	58,87	1,219014	71,77	91,77	3131680,699	109,6932	28549,45155
50	-91	47,3	9.743,800	98,71	Válido	78,71	1,219014	95,95	115,95	8652627,007	109,6932	78880,24971
50	-91	55,6	11.453,600	107,02	Válido	87,02	1,219014	106,08	126,08	12294839,22	109,6932	112083,8778
50	-91	41,5	8.549,000	92,46	Válido	72,46	1,219014	88,33	108,33	6477254,838	109,6932	59048,82744
50	-91	18,3	3.769,800	61,40	Válido	41,40	1,219014	50,47	70,47	913026,4315	109,6932	8323,45516
50	-91	54,6	11.247,600	106,05	Válido	86,05	1,219014	104,90	124,90	11823365,86	109,6932	107785,7685
50	-91	100,5	20.703,000	143,89	Válido	123,89	1,219014	151,02	171,02	42325304,02	109,6932	385851,6665
50	-91	27,7	5.706,200	75,54	Válido	55,54	1,219014	67,70	87,70	2553488,852	109,6932	23278,46076
50	-91	76,2	15.697,200	125,29	Válido	105,29	1,219014	128,35	148,35	23953159,49	109,6932	218365,0353
50	-91	75,7	15.594,200	124,88	Válido	104,88	1,219014	127,85	147,85	23626920,05	109,6932	215390,9272
50	-91	78,6	16.191,600	127,25	Válido	107,25	1,219014	130,73	150,73	25548590,57	109,6932	232909,5201
50	-91	59,1	12.174,600	110,34	Válido	90,34	1,219014	110,12	130,12	14014778,37	109,6932	127763,4199
50	-91	81	16.686,000	129,17	Válido	109,17	1,219014	133,08	153,08	27192645,66	109,6932	247897,2777
50	-91	86,5	17.819,000	133,49	Válido	113,49	1,219014	138,34	158,34	31142428,75	109,6932	283904,825
50	-91	117,8	24.266,800	155,78	Válido	135,78	1,219014	165,52	185,52	58335570,55	109,6932	531806,6257
50	-91	52,7	10.856,200	104,19	Válido	84,19	1,219014	102,63	122,63	10952104,19	109,6932	99843,05494
50	-91	57,4	11.824,400	108,74	Válido	88,74	1,219014	108,18	128,18	13165851,66	109,6932	120024,3193
50	-91	34,3	7.065,800	84,06	Válido	64,06	1,219014	78,09	98,09	4207694,865	109,6932	38358,75756
50	-91	18,8	3.872,800	62,23	Válido	42,23	1,219014	51,48	71,48	978970,1641	109,6932	8924,620342
50	-91	45,3	9.331,800	96,60	Válido	76,60	1,219014	93,38	113,38	7867836,741	109,6932	71725,83843
50	-91	30,6	6.303,600	79,40	Válido	59,40	1,219014	72,40	92,40	3229684,317	109,6932	29442,88541
50	-91	86	17.716,000	133,10	Válido	113,10	1,219014	137,87	157,87	30772926,72	109,6932	280536,3206
50	-91	20,2	4.161,200	64,51	Válido	44,51	1,219014	54,26	74,26	1176363,525	109,6932	10724,12442
50	-91	67	13.802,000	117,48	Válido	97,48	1,219014	118,83	138,83	18292124,76	109,6932	166757,1441
100	-91	21,6	4.449,600	66,71	Válido	46,71	1,485994	69,40	89,40	2785109,614	109,6932	25389,99331
100	-91	126,4	26.038,400	161,36	Válido	141,36	1,485994	210,07	230,07	134353152,9	109,6932	1224808,401
100	-91	47,6	9.805,600	99,02	Válido	79,02	1,485994	117,43	137,43	17546952,62	109,6932	159963,905
100	-91	39,6	8.157,600	90,32	Válido	70,32	1,485994	104,49	124,49	11663361,99	109,6932	106327,1196
100	-91	53,7	11.062,200	105,18	Válido	85,18	1,485994	126,57	146,57	22813297,71	109,6932	207973,673
100	-91	33	6.798,000	82,45	Válido	62,45	1,485994	92,80	112,80	7698802,378	109,6932	70184,8645
100	-91	40,1	8.260,600	90,89	Válido	70,89	1,485994	105,34	125,34	11996682,27	109,6932	109365,779
100	-91	42,7	8.796,200	93,79	Válido	73,79	1,485994	109,65	129,65	13804201,57	109,6932	125843,7312
100	-91	41,1	8.466,600	92,01	Válido	72,01	1,485994	107,01	127,01	12677160,59	109,6932	115569,2476
100	-91	23,3	4.799,800	69,28	Válido	49,28	1,485994	73,23	93,23	3360667,942	109,6932	30636,97605
100	-91	41,3	8.507,800	92,24	Válido	72,24	1,485994	107,34	127,34	12815467,1	109,6932	116830,0961

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{1/3,5}	r-0,3068	Kjc-20 ^{3,5} / r - 0,3068
100	-91	45,6	9.393,600	96,92	Válido	76,92	1,485994	114,30	134,30	15966474,69	109,6932	145555,7381
100	-91	25,9	5.335,400	73,04	Válido	53,04	1,485994	78,82	98,82	4347922,919	109,6932	39637,12353
100	-91	32	6.592,000	81,19	Válido	61,19	1,485994	90,93	110,93	7169183,728	109,6932	65356,68326
100	-91	27,7	5.706,200	75,54	Válido	55,54	1,485994	82,53	102,53	5106977,703	109,6932	46556,92151
100	-91	41,3	8.507,800	92,24	Válido	72,24	1,485994	107,34	127,34	12815467,1	109,6932	116830,0961
100	-91	33,4	6.880,400	82,95	Válido	62,95	1,485994	93,54	113,54	7915913,358	109,6932	72164,121
100	-91	32,1	6.612,600	81,32	Válido	61,32	1,485994	91,12	111,12	7221298,794	109,6932	65831,78168
100	-91	35,9	7.395,400	86,00	Válido	66,00	1,485994	98,07	118,07	9340785,993	109,6932	85153,73782
100	-91	35,8	7.374,800	85,88	Válido	65,88	1,485994	97,89	117,89	9281547,568	109,6932	84613,70047
100	-91	40,6	8.363,600	91,45	Válido	71,45	1,485994	106,18	126,18	12334617,09	109,6932	112446,5062
100	-91	32,9	6.777,400	82,32	Válido	62,32	1,485994	92,61	112,61	7644994,252	109,6932	69694,33158
100	-91	37,6	7.745,600	88,01	Válido	68,01	1,485994	101,06	121,06	10376344,32	109,6932	94594,23479
100	-91	19,7	4.058,200	63,70	Válido	43,70	1,485994	64,94	84,94	2207416,337	109,6932	20123,54765
100	-91	49,2	10.135,200	100,67	Válido	80,67	1,485994	119,88	139,88	18863508,85	109,6932	171966,0731
100	-91	42,3	8.713,800	93,35	Válido	73,35	1,485994	108,99	128,99	13518033,17	109,6932	123234,9241
100	-91	29,5	6.077,000	77,96	Válido	57,96	1,485994	86,12	106,12	5927631,547	109,6932	54038,27719
100	-91	25,4	5.232,400	72,34	Válido	52,34	1,485994	77,77	97,77	4148034,716	109,6932	37814,87563
100	-91	19,6	4.037,600	63,54	Válido	43,54	1,485994	64,70	84,70	2178929,652	109,6932	19863,85348
100	-91	46,6	9.599,600	97,98	Válido	77,98	1,485994	115,87	135,87	16747635,94	109,6932	152677,066
200	-91	50,7	10.444,200	102,20	Válido	82,20	1,811447	148,90	168,90	40279442,07	109,6932	367200,9027
200	-91	33,9	6.983,400	83,57	Válido	63,57	1,811447	115,15	135,15	16383050,49	109,6932	149353,3828
200	-91	44,8	9.228,800	96,07	Válido	76,07	1,811447	137,79	157,79	30709296,92	109,6932	279956,25
200	-91	40,9	8.425,400	91,79	Válido	71,79	1,811447	130,04	150,04	25079181,06	109,6932	228630,2255
200	-91	44,6	9.187,600	95,85	Válido	75,85	1,811447	137,40	157,40	30407029,62	109,6932	277200,6799
200	-91	25,8	5.314,800	72,90	Válido	52,90	1,811447	95,83	115,83	8615127,245	109,6932	78538,3893
200	-91	25,4	5.232,400	72,34	Válido	52,34	1,811447	94,80	114,80	8296069,432	109,6932	75629,75127
200	-91	25,6	5.273,600	72,62	Válido	52,62	1,811447	95,32	115,32	8454834,9	109,6932	77077,11053
200	-91	13,8	2.842,800	53,32	Válido	33,32	1,811447	60,35	80,35	1707899,522	109,6932	15569,78484
200	-91	23	4.738,000	68,83	Válido	48,83	1,811447	88,46	108,46	6510150,09	109,6932	59348,71158
200	-91	20,4	4.202,400	64,83	Válido	44,83	1,811447	81,20	101,20	4824388,273	109,6932	43980,7415
200	-91	30,2	6.221,200	78,87	Válido	58,87	1,811447	106,65	126,65	12526722,79	109,6932	114197,8062
200	-91	23,2	4.779,200	69,13	Válido	49,13	1,811447	89,00	109,00	6650557,6	109,6932	60628,71354
200	-91	38,8	7.992,800	89,40	Válido	69,40	1,811447	125,72	145,72	22279325,09	109,6932	203105,7995
200	-91	36,9	7.601,400	87,19	Válido	67,19	1,811447	121,70	141,70	19886846,37	109,6932	181295,1612
Total de Válidos					110						<i>Soma dos K0</i>	12431935,49
											<i>Somatoria</i> ^{1/3,5}	106,4170145
											anterior +20	126,4170145
											Kjc Médio	117,0948841

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{1/3,5}	r-0,3068	Kjc-20 ^{3,5} / r - 0,3068
												87,09488406
												1,244212629
												Ln
												T - TO
												11,49980782
25	-60	261	53.766,000	231,8749663	Válido					138445474	120,6932	1147085,951
25	-60	62,3	12.833,800	113,2863628	Válido					7840857,513	120,6932	64965,19699
25	-60	81,3	16.747,800	129,4132914	Válido					13700779,92	120,6932	113517,4138
25	-60	54,2	11.165,200	105,66551	Válido					5818633,678	120,6932	48210,12019
25	-60	123,4	25.420,400	159,4377622	Válido					32013371,5	120,6932	265245,8589
25	-60	191,8	39.510,800	198,7732376	Válido					76393915,32	120,6932	632959,5646
25	-60	74,6	15.367,600	123,9661244	Válido					11458334,39	120,6932	94937,69646
25	-60	100,3	20.661,800	143,7421302	Válido					21077134,09	120,6932	174633,9818
25	-60	40,2	8.281,200	91,00109889	Válido					3015975,064	120,6932	24988,77371
25	-60	78,2	16.109,200	126,9220233	Válido					12639651,2	120,6932	104725,4626
25	-60	129	26.574,000	163,0153367	Válido					34981557,77	120,6932	289838,6799
25	-60	140,9	29.025,400	170,3684243	Válido					41691572,02	120,6932	345434,3079
25	-60	56,1	11.556,600	107,5016279	Válido					6266953,391	120,6932	51924,66014
25	-60	67,4	13.884,400	117,8320839	Válido					9261568,982	120,6932	76736,46056
25	-60	112,2	23.113,200	152,0302601	Válido					26445828,45	120,6932	219116,1429
25	-60	120,3	24.781,800	157,4223618	Válido					30422922,35	120,6932	252068,2388
25	-60	90	18.540,000	136,1616686	Válido					16893512,07	120,6932	139970,7032
25	-60	68	14.008,000	118,355397	Válido					9436124,993	120,6932	78182,73932
25	-60	81,4	16.768,400	129,4928569	Válido					13735682,93	120,6932	113806,6016
25	-60	141,9	29.231,400	170,9719275	Válido					42280167,55	120,6932	350311,0991
25	-60	34	7.004,000	83,68990381	Válido					2061802,564	120,6932	17083,00521
25	-60	284,9	58.689,400	242,2589524	Válido					163684448,8	120,6932	1356202,742
25	-60	69	14.214,000	119,2224811	Válido					9730502,957	120,6932	80621,79938
25	-60	52	10.712,000	103,4987923	Válido					5319620,837	120,6932	44075,5638
25	-60	127,4	26.244,400	162,0012346	Válido					34121052,63	120,6932	282708,9896
25	-60	193,2	39.799,200	199,4973684	Válido					77482442,08	120,6932	641978,5214
25	-60	90,4	18.622,400	136,4639146	Válido					17047858,94	120,6932	141249,5396
25	-60	142,5	29.355,000	171,3330091	Válido					42635154,06	120,6932	353252,3295
25	-60	46,9	9.661,400	98,29242087	Válido					4246381,676	120,6932	35183,27193
25	-60	143,1	29.478,600	171,6933313	Válido					42991511,14	120,6932	356204,9157
25	-60	82,3	16.953,800	130,2067587	Válido					14051697,85	120,6932	116424,934
50	-60	164,7	33.928,200	184,1960912	Válido	164,19609	1,219014	200,1572771	220,1572771	113448784	120,6932	939976,6015
50	-60	109,7	22.598,200	150,326977	Válido	130,32698	1,219014	158,8703644	178,8703644	50541732,06	120,6932	418762,0517

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{1/3,5}	r-0,3068	Kjc-20 ^{3,5} / r - 0,3068
50	-60	59,4	12.236,400	110,6182625	Válido	90,618263	1,219014	110,4648993	130,4648993	14167233,56	120,6932	117382,2018
50	-60	98,6	20.311,600	142,5187707	Válido	122,51877	1,219014	149,3520544	169,3520544	40713571,62	120,6932	337331,1141
50	-60	52,9	10.897,400	104,3906126	Válido	84,390613	1,219014	102,8733091	122,8733091	11042298,52	120,6932	91490,64342
50	-60	112,9	23.257,400	152,5037704	Válido	132,50377	1,219014	161,5239054	181,5239054	53558551,54	120,6932	443757,8218
50	-60	147,8	30.446,800	174,4901143	Válido	154,49011	1,219014	188,3255588	208,3255588	91660543,21	120,6932	759450,7662
50	-60	82,9	17.077,400	130,6805265	Válido	110,68053	1,219014	134,921073	154,921073	28528520,7	120,6932	236372,229
50	-60	198	40.788,000	201,9603922	Válido	181,96039	1,219014	221,8122026	241,8122026	162535795,1	120,6932	1346685,605
50	-60	97	19.982,000	141,3577023	Válido	121,3577	1,219014	147,9366961	167,9366961	39379092,55	120,6932	326274,3265
50	-60	86,1	17.736,600	133,1788271	Válido	113,17883	1,219014	137,9665357	157,9665357	30846660,78	120,6932	255579,1111
50	-60	80,6	16.603,600	128,8549572	Válido	108,85496	1,219014	132,6956792	152,6956792	26915269,69	120,6932	223005,6846
50	-60	96,8	19.940,800	141,2118975	Válido	121,2119	1,219014	147,7589581	167,7589581	39213749,53	120,6932	324904,3818
50	-60	68,2	14.049,200	118,5293213	Válido	98,529321	1,219014	120,108588	140,108588	18989311,32	120,6932	157335,3869
50	-60	95,1	19.590,600	139,9664245	Válido	119,96642	1,219014	146,2407096	166,2407096	37821521,83	120,6932	313369,1196
50	-60	147,4	30.364,400	174,2538378	Válido	154,25384	1,219014	188,0375345	208,0375345	91170832,19	120,6932	755393,2797
50	-60	68,1	14.028,600	118,4423911	Válido	98,442391	1,219014	120,0026189	140,0026189	18930737,51	120,6932	156850,0753
50	-60	49,9	10.279,400	101,3873759	Válido	81,387376	1,219014	99,21232255	119,2123226	9727016,619	120,6932	80592,91343
50	-60	46,7	9.620,200	98,08261824	Válido	78,082618	1,219014	95,18377779	115,1837778	8413375,682	120,6932	69708,77964
50	-60	63,1	12.998,600	114,0114029	Válido	94,011403	1,219014	114,6011838	134,6011838	16112460,43	120,6932	133499,3225
50	-60	142,3	29.313,800	171,2127332	Válido	151,21273	1,219014	184,3303864	204,3303864	85033345,76	120,6932	704541,3143
50	-60	69,2	14.255,200	119,3951423	Válido	99,395142	1,219014	121,1640356	141,1640356	19579791,13	120,6932	162227,7903
50	-60	129,9	26.759,400	163,5830065	Válido	143,58301	1,219014	175,0296454	195,0296454	70939911,95	120,6932	587770,5782
50	-60	75,1	15.470,600	124,3808667	Válido	104,38087	1,219014	127,2417017	147,2417017	23238235,08	120,6932	192539,7212
50	-60	76,5	15.759,000	125,5348557	Válido	105,53486	1,219014	128,6484301	148,6484301	24149921,21	120,6932	200093,4702
50	-60	48	9.888,000	99,43842316	Válido	79,438423	1,219014	96,8365225	116,8365225	8935876,291	120,6932	74037,94324
50	-60	81,9	16.871,400	129,8899534	Válido	109,88995	1,219014	133,9573537	153,9573537	27821654,83	120,6932	230515,5123
50	-60	163,2	33.619,200	183,3553926	Válido	163,35539	1,219014	199,1324541	219,1324541	111428724,9	120,6932	923239,461
50	-60	127,4	26.244,400	162,0012346	Válido	142,00123	1,219014	173,1014438	193,1014438	68242105,25	120,6932	565417,9793
50	-60	76,2	15.697,200	125,2884671	Válido	105,28847	1,219014	128,3480791	148,3480791	23953159,49	120,6932	198463,2066
50	-60	129,1	26.594,600	163,0785087	Válido	143,07851	1,219014	174,4146557	194,4146557	70071338,38	120,6932	580574,0372
50	-60	176,8	36.420,800	190,8423433	Válido	170,84234	1,219014	208,2591492	228,2591492	130350984,2	120,6932	1080019,29
50	-60	86,2	17.757,200	133,2561443	Válido	113,25614	1,219014	138,0607864	158,0607864	30920478,02	120,6932	256190,7218
50	-60	94,4	19.446,400	139,4503496	Válido	119,45035	1,219014	145,6116071	165,6116071	37255121,45	120,6932	308676,2258
100	-60	415,3	85.551,800	292,4923931	Válido	272,49239	1,485994	404,9221399	424,9221399	1335981154	120,6932	11069233,01
100	-60	225,7	46.494,200	215,6251377	Válido	195,62514	1,485994	290,6978374	310,6978374	418838218,1	120,6932	3470271,88
100	-60	230	47.380,000	217,6694742	Válido	197,66947	1,485994	293,7357098	313,7357098	434358791,4	120,6932	3598867,139
100	-60	131,1	27.006,600	164,3368492	Válido	144,33685	1,485994	214,4837336	234,4837336	144504131,3	120,6932	1197284,779
100	-60	57,5	11.845,000	108,8347371	Válido	88,834737	1,485994	132,007912	152,007912	26430164,51	120,6932	218986,3597
100	-60	82,8	17.056,800	130,6016845	Válido	110,60168	1,485994	164,3534716	184,3534716	56914914,37	120,6932	471566,8685

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{1/3,5}	r-0,3068	Kjc-20 ^{3,5} / r - 0,3068
100	-60	88,3	18.189,800	134,8695666	Válido	114,86957	1,485994	170,69552	190,69552	64979659,35	120,6932	538387,0786
100	-60	113	23.278,000	152,5712948	Válido	132,57129	1,485994	197,000187	217,000187	107308280,1	120,6932	889099,6356
100	-60	64	13.184,000	114,8216008	Válido	94,821601	1,485994	140,9043572	160,9043572	33207446,43	120,6932	275139,3321
100	-60	107,7	22.186,200	148,9503273	Válido	128,95033	1,485994	191,6194499	211,6194499	97395426,11	120,6932	806966,9717
100	-60	112,3	23.133,800	152,0979947	Válido	132,09799	1,485994	196,2968658	216,2968658	105973378,2	120,6932	878039,3441
100	-60	160,8	33.124,800	182,0021978	Válido	162,0022	1,485994	240,7343407	260,7343407	216462746,1	120,6932	1793495,79
100	-60	265,4	54.672,400	233,8212993	Válido	213,8213	1,485994	317,7372296	337,7372296	571792383,5	120,6932	4737569,171
100	-60	106,3	21.897,800	147,9790526	Válido	127,97905	1,485994	190,1761413	210,1761413	94851916,21	120,6932	785892,7944
100	-60	153,5	31.621,000	177,8229457	Válido	157,82295	1,485994	234,5239959	254,5239959	197540204,3	120,6932	1636713,62
100	-60	150,2	30.941,200	175,9011086	Válido	155,90111	1,485994	231,668157	251,668157	189248394,2	120,6932	1568012,069
100	-60	168,9	34.793,400	186,5298904	Válido	166,52989	1,485994	247,4624661	267,4624661	238387060,1	120,6932	1975149,057
100	-60	86,1	17.736,600	133,1788271	Válido	113,17883	1,485994	168,1830908	188,1830908	61693321,55	120,6932	511158,2223
100	-60	282,6	58.215,600	241,2790915	Válido	221,27909	1,485994	328,8194663	348,8194663	644690573,8	120,6932	5341565,008
100	-60	115,5	23.793,000	154,2497974	Válido	134,2498	1,485994	199,4944323	219,4944323	112139270,8	120,6932	929126,6684
100	-60	128,1	26.388,600	162,4456832	Válido	142,44568	1,485994	211,6734718	231,6734718	137985202,6	120,6932	1143272,385
100	-60	102,2	21.053,200	145,0972088	Válido	125,09721	1,485994	185,8937379	205,8937379	87584380,05	120,6932	725677,8348
100	-60	68,5	14.111,000	118,7897302	Válido	98,78973	1,485994	146,8009749	166,8009749	38331100,57	120,6932	317591,2195
100	-60	30,4	6.262,400	79,13532713	Válido	59,135327	1,485994	87,8747584	107,8747584	6360986,941	120,6932	52703,77239
100	-60	94,5	19.467,000	139,5241915	Válido	119,52419	1,485994	177,6122659	197,6122659	74671580,21	120,6932	618689,2071
100	-60	63,3	13.039,800	114,1919437	Válido	94,191944	1,485994	139,9686904	159,9686904	32442039,37	120,6932	268797,5741
100	-60	89,4	18.416,400	135,7070374	Válido	115,70704	1,485994	171,9399968	191,9399968	66652923,05	120,6932	552250,8563
100	-60	132,7	27.336,200	165,3366263	Válido	145,33663	1,485994	215,9693967	235,9693967	148037844,5	120,6932	1226563,257
100	-60	241,9	49.831,400	223,2294783	Válido	203,22948	1,485994	301,9978442	321,9978442	478644915,3	120,6932	3965798,531
100	-60	191,9	39.531,400	198,8250487	Válido	178,82505	1,485994	265,7330012	285,7330012	305885734,6	120,6932	2534407,362
25	-60	128,7	26.512,200	162,8256737	Válido					34819456,18	120,6932	288495,592
25	-60	176	36.256,000	190,4100838	Válido					64600148,27	120,6932	535242,6505
25	-60	131,7	27.130,200	164,7124768	Válido					36456159,69	120,6932	302056,4513
25	-60	150,4	30.982,400	176,0181809	Válido					47436565,15	120,6932	393034,2816
25	-60	133,7	27.542,200	165,9584285	Válido					37566620,36	120,6932	311257,1409
25	-60	78,7	16.212,200	127,3271377	Válido					12808061,85	120,6932	106120,8241
25	-60	678,2	139.709,200	373,7769388	Censurado					0	120,6932	2,184139821
25	-60	46,1	9.496,600	97,45050026	Válido					4088695,754	120,6932	33876,76981
25	-60	369,1	76.034,600	275,7437216	Censurado					0	120,6932	2,184139821
25	-60	275,9	56.835,400	238,4017617	Válido					153955950,9	120,6932	1275597,556
25	-60	687,7	141.666,200	376,3857064	Censurado					0	120,6932	2,184139821
25	-60	140,7	28.984,200	170,2474669	Válido					41574310,57	120,6932	344462,7416
25	-60	89,1	18.354,600	135,4791497	Válido					16548648,09	120,6932	137113,3427
25	-60	87,8	18.086,800	134,4871741	Válido					16056427,6	120,6932	133035,0641

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{1/3,5}	r-0,3068	Kjc-20 ^{3,5} / r - 0,3068	
25	-60	219,5	45.217,000	212,6428931	Válido					99228281,88	120,6932	822153,0449	
25	-60	427,1	87.982,600	296,6186103	Censurado					0	120,6932	2,184139821	
25	-60	197,6	40.705,600	201,7562886	Válido					80949293,21	120,6932	670703,0156	
25	-60	64,1	13.204,600	114,9112701	Válido					8329371,802	120,6932	69012,76793	
25	-60	234,5	48.307,000	219,7885347	Válido					112718958,2	120,6932	933929,6512	
25	-60	133,7	27.542,200	165,9584285	Válido					37566620,36	120,6932	311257,1409	
25	-60	38,4	7.910,400	88,9404295	Válido					2720563,998	120,6932	22541,15392	
25	-60	116,3	23.957,800	154,783074	Válido					28426523,52	120,6932	235527,1343	
25	-60	166,1	34.216,600	184,9772959	Válido					57674605,59	120,6932	477861,268	
25	-60	217,1	44.722,600	211,4771855	Válido					97142577,72	120,6932	804872,0038	
25	-60	129	26.574,000	163,0153367	Válido					34981557,77	120,6932	289838,6799	
25	-60	373,6	76.961,600	277,4195379	Censurado					0	120,6932	2,184139821	
25	-60	164,6	33.907,600	184,140164	Válido					56656797,24	120,6932	469428,2465	
25	-60	77,7	16.006,200	126,5156117	Válido					12472296,6	120,6932	103338,8509	
25	-60	200,2	41.241,200	203,0792949	Válido					83030434,13	120,6932	687946,2482	
25	-60	63,6	13.101,600	114,4622208	Válido					8192256,304	120,6932	67876,70146	
25	-60	55	11.330,000	106,4424727	Válido					6005444,193	120,6932	49757,93328	
					T. Válidos	121						Soma dos K0	85540297,91
					T. Censurados	5						Somatoria ^{1/3,5}	184,6437035
										anterior +20	204,6437035		
										Kjc Médio	188,4689151		
											158,4689151		
											2,263841644		
										LN	0,817063213		
										T - T0	43,00203687		
25	-40	155,4	32.012,400	178,9200939	Válido					50597125,6	76,6932	659734,1824	
25	-40	203,4	41.900,400	204,695872	Válido					85624916,52	76,6932	1116460,345	
25	-40	275,9	56.835,400	238,4017617	Válido					153955950,9	76,6932	2007426,355	
25	-40	349,2	71.935,200	268,2073824	Censurado					0	76,6932	3,430412845	
25	-40	165,5	34.093,000	184,6428986	Válido					57266482,99	76,6932	746695,7043	
25	-40	311,7	64.210,200	253,3973165	Válido					194238584,4	76,6932	2532670,229	
25	-40	254,5	52.427,000	228,9694303	Válido					131913625,1	76,6932	1720017,226	
25	-40	548,6	113.011,600	336,1719798	Censurado					0	76,6932	3,430412845	
25	-40	773,9	159.423,400	399,2785995	Censurado					0	76,6932	3,430412845	
25	-40	758,7	156.292,200	395,3380832	Censurado					0	76,6932	3,430412845	
25	-40	139,3	28.695,800	169,3983471	Válido					40757756,85	76,6932	531438,9913	
25	-40	1544,1	318.084,600	563,9898935	Censurado					0	76,6932	3,430412845	
25	-40	136,6	28.139,600	167,7486215	Válido					39204149	76,6932	511181,5519	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{1/3,5}	r-0,3068	Kjc-20 ^{3,5} / r - 0,3068
25	-40	1433,6	295.321,600	543,4350007	Censurado					0	76,6932	3,430412845
25	-40	1337,1	275.442,600	524,826257	Censurado					0	76,6932	3,430412845
25	-40	483,2	99.539,200	315,498336	Censurado					0	76,6932	3,430412845
25	-40	1573,3	324.099,800	569,2976374	Censurado					0	76,6932	3,430412845
25	-40	619,9	127.699,400	357,3505282	Censurado					0	76,6932	3,430412845
25	-40	562,8	115.936,800	340,4949339	Censurado					0	76,6932	3,430412845
25	-40	264,8	54.548,800	233,5568453	Válido					142330258,7	76,6932	1855839,354
25	-40	1337,2	275.463,200	524,8458821	Censurado					0	76,6932	3,430412845
25	-40	1174	241.844,000	491,7763719	Censurado					0	76,6932	3,430412845
25	-40	1714,3	353.145,800	594,2607172	Censurado					0	76,6932	3,430412845
25	-40	61,6	12.689,600	112,6481247	Válido					7654700,731	76,6932	99809,37985
25	-40	251	51.706,000	227,3895336	Válido					128455860,4	76,6932	1674931,55
25	-40	113,2	23.319,200	152,706254	Válido					26922777,7	76,6932	351045,1735
25	-40	233,2	48.039,200	219,1784661	Válido					111518865,4	76,6932	1454090,655
25	-40	1127,9	232.347,400	482,0242732	Censurado					0	76,6932	3,430412845
25	-40	283	58.298,000	241,4497877	Válido					161608217,2	76,6932	2107203,992
25	-40	195,2	40.211,200	200,5273049	Válido					79049685,22	76,6932	1030726,13
50	-40	187	38.522,000	196,2702219	Válido	176,27022	1,219014	214,8758073	234,8758073	145430777,1	76,6932	1896266,907
50	-40	107,5	22.145,000	148,8119619	Válido	128,81196	1,219014	157,0235404	177,0235404	48515071,71	76,6932	632586,3533
50	-40	245	50.470,000	224,6552915	Válido	204,65529	1,219014	249,4775947	269,4775947	245250792,3	76,6932	3197816,655
50	-40	119	24.514,000	156,5694734	Válido	136,56947	1,219014	166,4800528	186,4800528	59534363,86	76,6932	776266,5251
50	-40	313,1	64.498,600	253,9657457	Válido	233,96575	1,219014	285,2074387	305,2074387	391798680,8	76,6932	5108649,539
50	-40	205,3	42.291,800	205,6497022	Válido	185,6497	1,219014	226,3095218	246,3095218	174365233	76,6932	2273542,283
50	-40	217,1	44.722,600	211,4771855	Válido	191,47719	1,219014	233,4133036	253,4133036	194285155,4	76,6932	2533277,467
50	-40	308,7	63.592,200	252,1749393	Válido	232,17494	1,219014	283,0244211	303,0244211	381402633,9	76,6932	4973095,84
50	-40	274,2	56.485,200	237,6661524	Válido	217,66615	1,219014	265,3380118	285,3380118	304297334	76,6932	3967722,483
50	-40	455,2	93.771,200	306,2208353	Válido	286,22084	1,219014	348,9071064	368,9071064	793385671,3	76,6932	10344928,51
50	-40	167	34.402,000	185,4777615	Válido	165,47776	1,219014	201,7196507	221,7196507	116578570,6	76,6932	1520063,977
50	-40	49,1	10.114,600	100,5713677	Válido	80,571368	1,219014	98,21759736	118,2175974	9389934,678	76,6932	122435,0357
50	-40	93,8	19.322,800	139,0064747	Válido	119,00647	1,219014	145,0705176	165,0705176	36772830,64	76,6932	479479,6754
50	-40	107,4	22.124,400	148,7427309	Válido	128,74273	1,219014	156,9391469	176,9391469	48423871,22	76,6932	631397,1933
50	-40	167	34.402,000	185,4777615	Válido	165,47776	1,219014	201,7196507	221,7196507	116578570,6	76,6932	1520063,977
50	-40	212,8	43.836,800	209,3723955	Válido	189,3724	1,219014	230,8475359	250,8475359	186912501,9	76,6932	2437145,691
50	-40	122,7	25.276,200	158,9849049	Válido	138,9849	1,219014	169,4244969	189,4244969	63301895,7	76,6932	825391,2433
50	-40	219,3	45.175,800	212,545995	Válido	192,546	1,219014	234,716197	254,716197	198107405,2	76,6932	2583115,65
50	-40	168,9	34.793,400	186,5298904	Válido	166,52989	1,219014	203,0022102	223,0022102	119193530,1	76,6932	1554160,344
50	-40	272,7	56.176,200	237,0151894	Válido	217,01519	1,219014	264,544479	284,544479	301124060,7	76,6932	3926346,282
50	-40	60,6	12.483,600	111,7300318	Válido	91,730032	1,219014	111,8201612	131,8201612	14784968,36	76,6932	192780,6945

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{1/3,5}	r-0,3068	Kjc-20 ^{3,5} / r - 0,3068
50	-40	271,9	56.011,400	236,667277	Válido	216,66728	1,219014	264,1203691	284,1203691	299437807,5	76,6932	3904359,285
50	-40	386,6	79.639,600	282,2048901	Válido	262,20489	1,219014	319,6313412	339,6313412	583811640,6	76,6932	7612299,925
50	-40	308,8	63.612,800	252,2157806	Válido	232,21578	1,219014	283,0742073	303,0742073	381637506,3	76,6932	4976158,334
50	-40	349,4	71.976,400	268,2841777	Válido	248,28418	1,219014	302,6618027	322,6618027	482338191,6	76,6932	6289191,11
50	-40	166,5	34.299,000	185,199892	Válido	165,19989	1,219014	201,380924	221,380924	115894853,9	76,6932	1511149,019
50	-40	137,8	28.386,800	168,4838271	Válido	148,48383	1,219014	181,0038127	201,0038127	79782387,86	76,6932	1040279,814
50	-40	313,1	64.498,600	253,9657457	Válido	233,96575	1,219014	285,2074387	305,2074387	391798680,8	76,6932	5108649,539
50	-40	139,9	28.819,400	169,7627757	Válido	149,76278	1,219014	182,5628684	202,5628684	82213583,33	76,6932	1071980,089
50	-40	50,6	10.423,600	102,0960332	Válido	82,096033	1,219014	100,0761855	120,0761855	10026690,31	76,6932	130737,6705
50	-40	251,8	51.870,800	227,7516191	Válido	207,75162	1,219014	253,2520604	273,2520604	258485065,3	76,6932	3370377,886
50	-40	210	43.260,000	207,9903844	Válido	187,99038	1,219014	229,1628454	249,1628454	182181687,8	76,6932	2375460,769
100	-40	75,5	15.553,000	124,7116675	Válido	104,71167	1,485994	155,6009398	175,6009398	46994037,11	76,6932	612753,6354
100	-40	79,1	16.294,600	127,6503036	Válido	107,6503	1,485994	159,9677363	179,9677363	51774200,03	76,6932	675082,0154
100	-40	187,7	38.666,200	196,6372294	Válido	176,63723	1,485994	262,4819142	282,4819142	292986659,3	76,6932	3820242,986
100	-40	214,1	44.104,600	210,0109521	Válido	190,01095	1,485994	282,3551897	302,3551897	378255464,4	76,6932	4932060,005
100	-40	91,5	18.849,000	137,2916603	Válido	117,29166	1,485994	174,2947374	194,2947374	69902862,54	76,6932	911461,0231
100	-40	167,8	34.566,800	185,9214888	Válido	165,92149	1,485994	246,5583848	266,5583848	235352717,5	76,6932	3068755,998
100	-40	142,5	29.355,000	171,3330091	Válido	151,33301	1,485994	224,8799872	244,8799872	170540616,2	76,6932	2223673,236
100	-40	153,4	31.600,400	177,7650134	Válido	157,76501	1,485994	234,437909	254,437909	197286531,2	76,6932	2572412,303
100	-40	110,9	22.845,400	151,1469484	Válido	131,14695	1,485994	194,8836163	214,8836163	103326960,6	76,6932	1347276,689
100	-40	112,4	23.154,400	152,1656992	Válido	132,1657	1,485994	196,3974742	216,3974742	106163601,6	76,6932	1384263,553
100	-40	99,6	20.517,600	143,2396593	Válido	123,23966	1,485994	183,1334299	203,1334299	83116395,91	76,6932	1083751,831
100	-40	108,2	22.289,200	149,2956798	Válido	129,29568	1,485994	192,1326418	212,1326418	98311435,99	76,6932	1281879,436
100	-40	92,1	18.972,600	137,7410614	Válido	117,74106	1,485994	174,9625449	194,9625449	70844771,58	76,6932	923742,5428
100	-40	160,5	33.063,000	181,8323404	Válido	161,83234	1,485994	240,4819336	260,4819336	215669431,3	76,6932	2812106,305
100	-40	96	19.776,000	140,6271666	Válido	120,62717	1,485994	179,2512808	199,2512808	77111284,21	76,6932	1005451,386
100	-40	166,8	34.360,800	185,3666637	Válido	165,36666	1,485994	245,7339178	265,7339178	232609724,5	76,6932	3032990,206
100	-40	141,2	29.087,200	170,5496995	Válido	150,5497	1,485994	223,7159937	243,7159937	167471001,2	76,6932	2183648,632
100	-40	186,7	38.460,200	196,1127227	Válido	176,11272	1,485994	261,7025002	281,7025002	289952962,8	76,6932	3780686,721
100	-40	81	16.686,000	129,1743008	Válido	109,1743	1,485994	162,2323876	182,2323876	54385291,32	76,6932	709127,9451
100	-40	95,6	19.693,600	140,3338876	Válido	120,33389	1,485994	178,8154697	198,8154697	76457097,56	76,6932	996921,4684
100	-40	86,1	17.736,600	133,1788271	Válido	113,17883	1,485994	168,1830908	188,1830908	61693321,55	76,6932	804417,1002
100	-40	63,5	13.081,000	114,3721994	Válido	94,372199	1,485994	140,2365494	160,2365494	32659855,58	76,6932	425850,7348
100	-40	40	8.240,000	90,77444574	Válido	70,774446	1,485994	105,1704222	125,1704222	11929648,86	76,6932	155550,2816
100	-40	94,8	19.528,800	139,7454829	Válido	119,74548	1,485994	177,9411038	197,9411038	75156575,06	76,6932	979964,0002
100	-40	272,3	56.093,800	236,8412971	Válido	216,8413	1,485994	322,2249291	342,2249291	600560796,5	76,6932	7830691,593
100	-40	282,2	58.133,200	241,1082744	Válido	221,10827	1,485994	328,5656331	348,5656331	642950405,9	76,6932	8383408,254
100	-40	175,4	36.132,400	190,085244	Válido	170,08524	1,485994	252,7457013	272,7457013	256680704,4	76,6932	3346850,887

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{1/3,5}	r-0,3068	Kjc-20 ^{3,5} / r - 0,3068	
100	-40	102,6	21.135,600	145,3808791	Válido	125,38088	1,485994	186,3152703	206,3152703	88281474,43	76,6932	1151099,112	
100	-40	124	25.544,000	159,8249042	Válido	139,8249	1,485994	207,7790091	227,7790091	129302180,2	76,6932	1685966,686	
100	-40	96,4	19.858,400	140,9198354	Válido	120,91984	1,485994	179,6861848	199,6861848	77768085,32	76,6932	1014015,393	
					Válidos	77						Somatoria	172422600
					Censurados	15						Somatoria ^{1/3,5}	225,5862504
										K0	245,5862504		
										Kjc Médio	225,8248948		
											195,8248948		
											2,797498498		
										Ln	1,028725624		
										T-T0	54,1418296		
25	-20	258,8	53.312,800	230,8956474	Válido					136218677,1	62,6932	2172782,329	
25	-20	723,7	149.082,200	386,1116419	Censurado					0	62,6932	4,073937366	
25	-20	1133,7	233.542,200	483,2620407	Censurado					0	62,6932	4,073937366	
25	-20	914,9	188.469,400	434,1306255	Censurado					0	62,6932	4,073937366	
25	-20	1554,5	320.227,000	565,8860309	Censurado					0	62,6932	4,073937366	
25	-20	1497,2	308.423,200	555,3586229	Censurado					0	62,6932	4,073937366	
25	-20	1499	308.794,000	555,6923609	Censurado					0	62,6932	4,073937366	
25	-20	1575	324.450,000	569,6051264	Censurado					0	62,6932	4,073937366	
25	-20	1480,1	304.900,600	552,178051	Censurado					0	62,6932	4,073937366	
25	-20	1560,5	321.463,000	566,9770718	Censurado					0	62,6932	4,073937366	
25	-20	78,9	16.253,400	127,488823	Válido					12875721,56	62,6932	205376,6846	
25	-20	102,7	21.156,200	145,4517102	Válido					22114038	62,6932	352734,2359	
25	-20	772,5	159.135,000	398,9172847	Censurado					0	62,6932	4,073937366	
25	-20	798,3	164.449,800	405,5241053	Censurado					0	62,6932	4,073937366	
25	-20	1340	276.040,000	525,3950894	Censurado					0	62,6932	4,073937366	
25	-20	1348,6	277.811,600	527,0783623	Censurado					0	62,6932	4,073937366	
25	-20	1361,1	280.386,600	529,5154389	Censurado					0	62,6932	4,073937366	
25	-20	1368,5	281.911,000	530,9529169	Censurado					0	62,6932	4,073937366	
25	-20	1368,6	281.931,600	530,9723157	Censurado					0	62,6932	4,073937366	
25	-20	1371,1	282.446,600	531,4570538	Censurado					0	62,6932	4,073937366	
25	-20	1381,3	284.547,800	533,4302204	Censurado					0	62,6932	4,073937366	
25	-20	1391	286.546,000	535,2999159	Censurado					0	62,6932	4,073937366	
25	-20	1408,2	290.089,200	538,5992945	Censurado					0	62,6932	4,073937366	
25	-20	1436,3	295.877,800	543,9465047	Censurado					0	62,6932	4,073937366	
25	-20	1459,7	300.698,200	548,3595536	Censurado					0	62,6932	4,073937366	
25	-20	1472,5	303.335,000	550,7585678	Censurado					0	62,6932	4,073937366	
25	-20	1473,7	303.582,200	550,9829398	Censurado					0	62,6932	4,073937366	
25	-20	1496,6	308.299,600	555,2473323	Censurado					0	62,6932	4,073937366	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{1/3,5}	r-0,3068	Kjc-20 ^{3,5} / r - 0,3068
25	-20	1524,5	314.047,000	560,398965	Censurado					0	62,6932	4,073937366
25	-20	1547,8	318.846,800	564,6652105	Censurado					0	62,6932	4,073937366
25	-20	1553,3	319.979,800	565,6675702	Censurado					0	62,6932	4,073937366
50	-20	195,2	40.211,200	200,5273049	Válido	180,5273	1,219014	220,0652496	240,0652496	158099370,4	62,6932	2521794,556
50	-20	180,6	37.203,600	192,8823476	Válido	172,88235	1,219014	210,7459422	230,7459422	135880543,3	62,6932	2167388,861
50	-20	328,8	67.732,800	260,2552593	Válido	240,25526	1,219014	292,8744416	312,8744416	429917533,5	62,6932	6857482,686
50	-20	168,1	34.628,600	186,0876138	Válido	166,08761	1,219014	202,463069	222,463069	118089247,4	62,6932	1883605,358
50	-20	362,3	74.633,800	273,191874	Válido	253,19187	1,219014	308,6443515	328,6443515	516540248	62,6932	8239175,03
50	-20	326,5	67.259,000	259,3434017	Válido	239,3434	1,219014	291,7628747	311,7628747	424233639,5	62,6932	6766820,636
50	-20	655,6	135.053,600	367,4963945	Censurado	347,49639	1,219014	423,6028497	443,6028497	0	62,6932	5,761417506
50	-20	648,8	133.652,800	365,5855577	Censurado	345,58556	1,219014	421,2735135	441,2735135	0	62,6932	5,761417506
50	-20	1017	209.502,000	457,7138844	Censurado	437,71388	1,219014	533,5792018	553,5792018	0	62,6932	5,761417506
50	-20	486,8	100.280,800	316,6714386	Censurado	296,67144	1,219014	361,6465344	381,6465344	0	62,6932	5,761417506
50	-20	1619	333.514,000	577,5067099	Censurado	557,50671	1,219014	679,6082917	699,6082917	0	62,6932	5,761417506
50	-20	256	52.736,000	229,6432015	Válido	209,6432	1,219014	255,5579252	275,5579252	266816533,3	62,6932	4255908,668
50	-20	695	143.170,000	378,3781178	Censurado	358,37812	1,219014	436,8678189	456,8678189	0	62,6932	5,761417506
50	-20	417	85.902,000	293,0904297	Válido	273,09043	1,219014	332,9009627	352,9009627	673135784,5	62,6932	10736982,39
50	-20	1582	325.892,000	570,8695122	Censurado	550,86951	1,219014	671,5174571	691,5174571	0	62,6932	5,761417506
50	-20	807	166.242,000	407,7278504	Censurado	387,72785	1,219014	472,6455438	492,6455438	0	62,6932	5,761417506
50	-20	447	92.082,000	303,4501607	Censurado	283,45016	1,219014	345,5296161	365,5296161	0	62,6932	0
50	-20	502	103.412,000	321,5773624	Censurado	301,57736	1,219014	367,6269225	387,6269225	0	62,6932	5,761417506
50	-20	380	78.280,000	279,7856322	Válido	259,78563	1,219014	316,6822328	336,6822328	565175001,8	62,6932	9014933,067
50	-20	291	59.946,000	244,8387224	Válido	224,83872	1,219014	274,0814726	294,0814726	340862226,8	62,6932	5436988,808
50	-20	259	53.354,000	230,984848	Válido	210,98485	1,219014	257,1934105	277,1934105	272840873,4	62,6932	4352001,069
50	-20	480	98.880,000	314,4519041	Censurado	294,4519	1,219014	358,9408916	378,9408916	0	62,6932	5,761417506
50	-20	1266	260.796,000	510,6818971	Censurado	490,6819	1,219014	598,1479324	618,1479324	0	62,6932	5,761417506
50	-20	330	67.980,000	260,7297451	Válido	240,72975	1,219014	293,4528463	313,4528463	432896567,1	62,6932	6905000,336
50	-20	162	33.372,000	182,6800482	Válido	162,68005	1,219014	198,3092	218,3092	109824698,3	62,6932	1751780,07
50	-20	392	80.752,000	284,1689638	Válido	264,16896	1,219014	322,0255739	342,0255739	599261352,6	62,6932	9558633,992
50	-20	555	114.330,000	338,127195	Censurado	318,1272	1,219014	387,8013945	407,8013945	0	62,6932	5,761417506
50	-20	820	168.920,000	410,9987835	Censurado	390,99878	1,219014	476,6328558	496,6328558	0	62,6932	5,761417506
50	-20	512	105.472,000	324,7645301	Censurado	304,76453	1,219014	371,5121235	391,5121235	0	62,6932	5,761417506
50	-20	139	28.634,000	169,2158385	Válido	149,21584	1,219014	181,8961446	201,8961446	81167511,04	62,6932	1294678,068
100	-20	193	39.758,000	199,3940822	Válido	179,39408	1,485994	266,5785816	286,5785816	309306028,7	62,6932	4933645,574
100	-20	58,6	12.071,600	109,8708333	Válido	89,870833	1,485994	133,547545	153,547545	27524895,61	62,6932	439041,1657
100	-20	186,1	38.336,600	195,7973442	Válido	175,79734	1,485994	261,2338495	281,2338495	288139684,2	62,6932	4596027,706
100	-20	188,4	38.810,400	197,0035533	Válido	177,00355	1,485994	263,0262693	283,0262693	295118841,8	62,6932	4707350,108

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{1/3,5}	r-0,3068	Kjc-20 ^{3,5} / r - 0,3068
100	-20	191,7	39.490,200	198,721413	Válido	178,72141	1,485994	265,5789991	285,5789991	305265731,8	62,6932	4869200,038
100	-20	130,8	26.944,800	164,1487131	Válido	144,14871	1,485994	214,2041644	234,2041644	143845965,1	62,6932	2294442,86
100	-20	373,5	76.941,000	277,3824075	Válido	257,38241	1,485994	382,4687877	402,4687877	1094173009	62,6932	17452817,99
100	-20	371,9	76.611,400	276,7876442	Válido	256,78764	1,485994	381,5849729	401,5849729	1085349029	62,6932	17312069,4
100	-20	315,9	65.075,400	255,0988044	Válido	235,0988	1,485994	349,3554807	369,3554807	796959887,5	62,6932	12712062,67
100	-20	334,9	68.989,400	262,6583332	Válido	242,65833	1,485994	360,5888973	380,5888973	890314049,6	62,6932	14201126,27
100	-20	133,4	27.480,400	165,7721328	Válido	145,77213	1,485994	216,6165568	236,6165568	149596271,3	62,6932	2386164,231
100	-20	112,2	23.113,200	152,0302601	Válido	132,03026	1,485994	196,1962126	216,1962126	105783313,8	62,6932	1687317,186
100	-20	212,5	43.775,000	209,2247595	Válido	189,22476	1,485994	281,186912	301,186912	372805969,9	62,6932	5946513,656
100	-20	231,2	47.627,200	218,2365689	Válido	198,23657	1,485994	294,5784093	314,5784093	438735922	62,6932	6998142,095
100	-20	247,3	50.943,800	225,7073326	Válido	205,70733	1,485994	305,6799215	325,6799215	499383508,3	62,6932	7965513,139
100	-20	212,3	43.733,800	209,1262776	Válido	189,12628	1,485994	281,0405685	301,0405685	372127318,5	62,6932	5935688,696
100	-20	224,4	46.226,400	215,0032558	Válido	195,00326	1,485994	289,7737245	309,7737245	414196581,2	62,6932	6606722,598
100	-20	100,6	20.723,600	143,956938	Válido	123,95694	1,485994	184,199302	204,199302	84821887,11	62,6932	1352967,899
100	-20	123,7	25.482,200	159,6314505	Válido	139,63145	1,485994	207,4915381	227,4915381	128677129,7	62,6932	2052489,421
100	-20	82,8	17.056,800	130,6016845	Válido	110,60168	1,485994	164,3534716	184,3534716	56914914,37	62,6932	907832,3386
100	-20	223	45.938,000	214,3315189	Válido	194,33152	1,485994	288,7755273	308,7755273	409224238,7	62,6932	6527410,288
100	-20	74,4	15.326,400	123,7998384	Válido	103,79984	1,485994	154,2459671	174,2459671	45577275,75	62,6932	726989,1431
100	-20	683,1	140.718,600	375,1247792	Censurado	355,12478	1,485994	527,7133939	547,7133939	0	62,6932	8,14787473
100	-20	288,5	59.431,000	243,7847411	Válido	223,78474	1,485994	332,5428473	352,5428473	670604770,3	62,6932	10696610,96
100	-20	299,8	61.758,800	248,5131787	Válido	228,51318	1,485994	339,5692786	359,5692786	721521658	62,6932	11508770,62
100	-20	301,3	62.067,800	249,1341004	Válido	229,1341	1,485994	340,4919647	360,4919647	728406874,6	62,6932	11618594,59
100	-20	384,1	79.124,600	281,2909526	Válido	261,29095	1,485994	388,2768633	408,2768633	1153440759	62,6932	18398179,69
100	-20	324,6	66.867,600	258,5877027	Válido	238,5877	1,485994	354,5399637	374,5399637	839127947,5	62,6932	13384672,46
100	-20	588,7	121.272,200	348,2415828	Válido	328,24158	1,485994	487,7651175	507,7651175	2562934959	62,6932	40880589,26
100	-20	318,2	65.549,200	256,02578	Válido	236,02578	1,485994	350,7329611	370,7329611	808012420	62,6932	12888358,23
200	-20	117	24.102,000	155,2481884	Válido	135,24819	1,811447	244,9949696	264,9949696	230170724,7	62,6932	3671382,617
200	-20	234	48.204,000	219,5540936	Válido	199,55409	1,811447	361,4817297	381,4817297	898053543,8	62,6932	14324576,57
200	-20	179	36.874,000	192,0260399	Válido	172,02604	1,811447	311,6161104	331,6161104	534157903,2	62,6932	8520188,844
200	-20	175	36.050,000	189,8683755	Válido	169,86838	1,811447	307,7076149	327,7076149	511074078,2	62,6932	8151985,832
200	-20	162	33.372,000	182,6800482	Válido	162,68005	1,811447	294,6863387	314,6863387	439298793,1	62,6932	7007120,28
200	-20	166	34.196,000	184,921605	Válido	164,92161	1,811447	298,7468008	318,7468008	460851941,5	62,6932	7350907,937
200	-20	162	33.372,000	182,6800482	Válido	162,68005	1,811447	294,6863387	314,6863387	439298793,1	62,6932	7007120,28
200	-20	179	36.874,000	192,0260399	Válido	172,02604	1,811447	311,6161104	331,6161104	534157903,2	62,6932	8520188,844
200	-20	199	40.994,000	202,4697508	Válido	182,46975	1,811447	330,5343427	350,5343427	656535272,3	62,6932	10472192,71
200	-20	239	49.234,000	221,8873588	Válido	201,88736	1,811447	365,7083168	385,7083168	935345216,3	62,6932	14919404,6
200	-20	112	23.072,000	151,8947004	Válido	131,8947	1,811447	238,9203026	258,9203026	210807324,6	62,6932	3362522,963
200	-20	236	48.616,000	220,4903626	Válido	200,49036	1,811447	363,1777317	383,1777317	912887460,3	62,6932	14561187,82

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{1/3,5}	r-0,3068	Kjc-20 ^{3,5} / r - 0,3068
200	-20	125	25.750,000	160,4680654	Válido	140,46807	1,811447	254,4505017	274,4505017	262791667,4	62,6932	4191709,267
200	-20	168	34.608,000	186,0322553	Válido	166,03226	1,811447	300,7586853	320,7586853	471806176,3	62,6932	7525635,576
200	-20	187	38.522,000	196,2702219	Válido	176,27022	1,811447	319,3042225	339,3042225	581723108,5	62,6932	9278886,842
											Somatoria	465326591
											Somatoria ^{1/3,5}	299,5727105
											K0	319,5727105
											Kjc Médio	293,330141
												263,330141
												3,761859158
											Ln	1,324913292
											T-T0	69,73018656

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,0}	r-0,3068	Kjc-20 ⁴ / r - 0,3068
25	-91	76,8	15.820,800	125,78	Válido					125206466,4	109,6932	1141424,139
25	-91	70,6	14.543,600	120,60	Válido					102408855,1	109,6932	933593,4688
25	-91	23,7	4.882,200	69,87	Válido					6186613,242	109,6932	56399,24118
25	-91	42,3	8.713,800	93,35	Válido					28943222,01	109,6932	263856,1188
25	-91	77,2	15.903,200	126,11	Válido					126762477,6	109,6932	1155609,26
25	-91	68,5	14.111,000	118,79	Válido					95246099,01	109,6932	868295,3821
25	-91	52	10.712,000	103,50	Válido					48609457,63	109,6932	443140,1183
25	-91	29,4	6.056,400	77,82	Válido					11178891,73	109,6932	101910,5262
25	-91	46,3	9.537,800	97,66	Válido					36376984,58	109,6932	331624,7915
25	-91	124,3	25.605,800	160,02	Válido					384358967,4	109,6932	3503945,252
25	-91	39,7	8.178,200	90,43	Válido					24610171,27	109,6932	224354,575
25	-91	63,3	13.039,800	114,19	Válido					78714553,27	109,6932	717588,2668
25	-91	71,4	14.708,400	121,28	Válido					105211635	109,6932	959144,55
25	-91	76	15.656,000	125,12	Válido					122125539,4	109,6932	1113337,376
25	-91	55,9	11.515,400	107,31	Válido					58110231,58	109,6932	529752,36
25	-91	21,3	4.387,800	66,24	Válido					4571818,671	109,6932	41678,2323
25	-91	76,5	15.759,000	125,53	Válido					124046262,3	109,6932	1130847,33
25	-91	23,1	4.758,600	68,98	Válido					5756620,047	109,6932	52479,279
25	-91	70,2	14.461,200	120,25	Válido					101022818,4	109,6932	920957,8934
25	-91	38,6	7.951,600	89,17	Válido					22893643,32	109,6932	208706,1305
25	-91	112,8	23.236,800	152,44	Válido					307628845,9	109,6932	2804447,731
25	-91	19,9	4.099,400	64,03	Válido					3757153,118	109,6932	34251,4679
25	-91	77	15.862,000	125,94	Válido					125983175,5	109,6932	1148504,88
25	-91	47,3	9.743,800	98,71	Válido					38382639,98	109,6932	349909,0188
25	-91	48,9	10.073,400	100,37	Válido					41715410,74	109,6932	380291,6747
25	-91	93,9	19.343,400	139,08	Válido					201077445,6	109,6932	1833089,431
25	-91	29,1	5.994,600	77,42	Válido					10874217,93	109,6932	99133,01767
25	-91	56,6	11.659,600	107,98	Válido					59914022,7	109,6932	546196,3248
25	-91	51,4	10.588,400	102,90	Válido					47229908,47	109,6932	430563,6856
25	-91	76,6	15.779,600	125,62	Válido					124432349,2	109,6932	1134367,027
25	-91	59,4	12.236,400	110,62	Válido					67431515,97	109,6932	614728,3147
50	-91	22,4	4.614,400	67,93	Válido	47,93	1,148698	55,06	75,06	9188213,183	109,6932	83762,83291
50	-91	31,7	6.530,200	80,81	Válido	60,81	1,148698	69,85	89,85	23807516,51	109,6932	217037,305
50	-91	14,9	3.069,400	55,40	Válido	35,40	1,148698	40,67	60,67	2734911,858	109,6932	24932,37373
50	-91	46,5	9.579,000	97,87	Válido	77,87	1,148698	89,45	109,45	64026162,7	109,6932	583683,9722
50	-91	24,6	5.067,600	71,19	Válido	51,19	1,148698	58,80	78,80	11952681,13	109,6932	108964,6498
50	-91	58,7	12.092,200	109,96	Válido	89,96	1,148698	103,34	123,34	114053717,7	109,6932	1039751,942
50	-91	41,6	8.569,600	92,57	Válido	72,57	1,148698	83,36	103,36	48295155,93	109,6932	440274,8386

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,0}	r-0,3068	Kjc-20 ⁴ / r - 0,3068
50	-91	30,4	6.262,400	79,14	Válido	59,14	1,148698	67,93	87,93	21291782,01	109,6932	194103,0256
50	-91	46,1	9.496,600	97,45	Válido	77,45	1,148698	88,97	108,97	62649975,49	109,6932	571138,1881
50	-91	48,7	10.032,200	100,16	Válido	80,16	1,148698	92,08	112,08	71890863,11	109,6932	655381,2188
50	-91	30,2	6.221,200	78,87	Válido	58,87	1,148698	67,63	87,63	20918734,23	109,6932	190702,1969
50	-91	47,3	9.743,800	98,71	Válido	78,71	1,148698	90,41	110,41	66828057,71	109,6932	609226,9868
50	-91	55,6	11.453,600	107,02	Válido	87,02	1,148698	99,96	119,96	99845873,37	109,6932	910228,4678
50	-91	41,5	8.549,000	92,46	Válido	72,46	1,148698	83,24	103,24	47999482,46	109,6932	437579,3801
50	-91	18,3	3.769,800	61,40	Válido	41,40	1,148698	47,55	67,55	5114117,329	109,6932	46622,00874
50	-91	54,6	11.247,600	106,05	Válido	86,05	1,148698	98,85	118,85	95482203,75	109,6932	870447,7922
50	-91	100,5	20.703,000	143,89	Válido	123,89	1,148698	142,31	162,31	410113532,7	109,6932	3738732,508
50	-91	27,7	5.706,200	75,54	Válido	55,54	1,148698	63,80	83,80	16566414,91	109,6932	151024,9943
50	-91	76,2	15.697,200	125,29	Válido	105,29	1,148698	120,94	140,94	213967202,5	109,6932	1950596,778
50	-91	75,7	15.594,200	124,88	Válido	104,88	1,148698	120,47	140,47	210639929,5	109,6932	1920264,241
50	-91	78,6	16.191,600	127,25	Válido	107,25	1,148698	123,19	143,19	230330759,9	109,6932	2099772,455
50	-91	59,1	12.174,600	110,34	Válido	90,34	1,148698	103,77	123,77	115962305,4	109,6932	1057151,267
50	-91	81	16.686,000	129,17	Válido	109,17	1,148698	125,41	145,41	247346445,7	109,6932	2254893,154
50	-91	86,5	17.819,000	133,49	Válido	113,49	1,148698	130,36	150,36	288815914,9	109,6932	2632942,743
50	-91	117,8	24.266,800	155,78	Válido	135,78	1,148698	155,97	175,97	591755400,2	109,6932	5394640,691
50	-91	52,7	10.856,200	104,19	Válido	84,19	1,148698	96,71	116,71	87484233,72	109,6932	797535,615
50	-91	57,4	11.824,400	108,74	Válido	88,74	1,148698	101,94	121,94	107969927,6	109,6932	984290,071
50	-91	34,3	7.065,800	84,06	Válido	64,06	1,148698	73,58	93,58	29317436,13	109,6932	267267,5802
50	-91	18,8	3.872,800	62,23	Válido	42,23	1,148698	48,51	68,51	5538388,028	109,6932	50489,80273
50	-91	45,3	9.331,800	96,60	Válido	76,60	1,148698	87,99	107,99	59946971,39	109,6932	546496,6961
50	-91	30,6	6.303,600	79,40	Válido	59,40	1,148698	68,23	88,23	21668547,54	109,6932	197537,7465
50	-91	86	17.716,000	133,10	Válido	113,10	1,148698	129,92	149,92	284902932,1	109,6932	2597270,68
50	-91	20,2	4.161,200	64,51	Válido	44,51	1,148698	51,13	71,13	6832057,098	109,6932	62283,32383
50	-91	67	13.802,000	117,48	Válido	97,48	1,148698	111,98	131,98	157224484,2	109,6932	1433311,127
100	-91	21,6	4.449,600	66,71	Válido	46,71	1,319508	61,63	81,63	14424922,22	109,6932	131502,4288
100	-91	126,4	26.038,400	161,36	Válido	141,36	1,319508	186,53	206,53	1210613633	109,6932	11036359,89
100	-91	47,6	9.805,600	99,02	Válido	79,02	1,319508	104,27	124,27	118213504,5	109,6932	1077673,954
100	-91	39,6	8.157,600	90,32	Válido	70,32	1,319508	92,79	112,79	74122393,92	109,6932	675724,6021
100	-91	53,7	11.062,200	105,18	Válido	85,18	1,319508	112,39	132,39	159564848,2	109,6932	1454646,671
100	-91	33	6.798,000	82,45	Válido	62,45	1,319508	82,40	102,40	46108112,29	109,6932	420337,0154
100	-91	40,1	8.260,600	90,89	Válido	70,89	1,319508	93,54	113,54	76548209,91	109,6932	697839,1542
100	-91	42,7	8.796,200	93,79	Válido	73,79	1,319508	97,36	117,36	89865363,86	109,6932	819242,7959
100	-91	41,1	8.466,600	92,01	Válido	72,01	1,319508	95,02	115,02	81530264,42	109,6932	743257,234
100	-91	23,3	4.799,800	69,28	Válido	49,28	1,319508	65,03	85,03	17879342,73	109,6932	162994,0847
100	-91	41,3	8.507,800	92,24	Válido	72,24	1,319508	95,32	115,32	82547610,41	109,6932	752531,7012

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,0}	r-0,3068	Kjc-20 ⁴ / r - 0,3068
100	-91	45,6	9.393,600	96,92	Válido	76,92	1,319508	101,50	121,50	106125153,3	109,6932	967472,4899
100	-91	25,9	5.335,400	73,04	Válido	53,04	1,319508	69,99	89,99	23998673,89	109,6932	218779,9598
100	-91	32	6.592,000	81,19	Válido	61,19	1,319508	80,74	100,74	42501274,9	109,6932	387455,8761
100	-91	27,7	5.706,200	75,54	Válido	55,54	1,319508	73,28	93,28	28843803,66	109,6932	262949,7878
100	-91	41,3	8.507,800	92,24	Válido	72,24	1,319508	95,32	115,32	82547610,41	109,6932	752531,7012
100	-91	33,4	6.880,400	82,95	Válido	62,95	1,319508	83,06	103,06	47597112,96	109,6932	433911,2448
100	-91	32,1	6.612,600	81,32	Válido	61,32	1,319508	80,91	100,91	42854549,55	109,6932	390676,4462
100	-91	35,9	7.395,400	86,00	Válido	66,00	1,319508	87,08	107,08	57508483,31	109,6932	524266,621
100	-91	35,8	7.374,800	85,88	Válido	65,88	1,319508	86,92	106,92	57091856,89	109,6932	520468,5148
100	-91	40,6	8.363,600	91,45	Válido	71,45	1,319508	94,28	114,28	79017458,46	109,6932	720349,6522
100	-91	32,9	6.777,400	82,32	Válido	62,32	1,319508	82,24	102,24	45740003,08	109,6932	416981,2083
100	-91	37,6	7.745,600	88,01	Válido	68,01	1,319508	89,74	109,74	64850877,87	109,6932	591202,3523
100	-91	19,7	4.058,200	63,70	Válido	43,70	1,319508	57,67	77,67	11059433,02	109,6932	100821,5006
100	-91	49,2	10.135,200	100,67	Válido	80,67	1,319508	106,45	126,45	128403408,3	109,6932	1170568,534
100	-91	42,3	8.713,800	93,35	Válido	73,35	1,319508	96,78	116,78	87739442,19	109,6932	799862,181
100	-91	29,5	6.077,000	77,96	Válido	57,96	1,319508	76,47	96,47	34199132,48	109,6932	311770,7613
100	-91	25,4	5.232,400	72,34	Válido	52,34	1,319508	69,06	89,06	22741958,81	109,6932	207323,3237
100	-91	19,6	4.037,600	63,54	Válido	43,54	1,319508	57,45	77,45	10896473,23	109,6932	99335,90439
100	-91	46,6	9.599,600	97,98	Válido	77,98	1,319508	102,89	122,89	112079530,2	109,6932	1021754,586
200	-91	50,7	10.444,200	102,20	Válido	82,20	1,515717	124,59	144,59	240931223,4	109,6932	2196409,836
200	-91	33,9	6.983,400	83,57	Válido	63,57	1,515717	96,35	116,35	86177073,43	109,6932	785619,1034
200	-91	44,8	9.228,800	96,07	Válido	76,07	1,515717	115,30	135,30	176705066,9	109,6932	1610902,653
200	-91	40,9	8.425,400	91,79	Válido	71,79	1,515717	108,81	128,81	140193301,2	109,6932	1278049,152
200	-91	44,6	9.187,600	95,85	Válido	75,85	1,515717	114,97	134,97	174718716,1	109,6932	1592794,413
200	-91	25,8	5.314,800	72,90	Válido	52,90	1,515717	80,19	100,19	41341146,31	109,6932	376879,7547
200	-91	25,4	5.232,400	72,34	Válido	52,34	1,515717	79,33	99,33	39596050,11	109,6932	360970,8725
200	-91	25,6	5.273,600	72,62	Válido	52,62	1,515717	79,76	99,76	40463246,63	109,6932	368876,5268
200	-91	13,8	2.842,800	53,32	Válido	33,32	1,515717	50,50	70,50	6504040,305	109,6932	59293,01274
200	-91	23	4.738,000	68,83	Válido	48,83	1,515717	74,02	94,02	30014443,23	109,6932	273621,7307
200	-91	20,4	4.202,400	64,83	Válido	44,83	1,515717	67,94	87,94	21310265,73	109,6932	194271,5294
200	-91	30,2	6.221,200	78,87	Válido	58,87	1,515717	89,24	109,24	63413744,04	109,6932	578100,9583
200	-91	23,2	4.779,200	69,13	Válido	49,13	1,515717	74,47	94,47	30755388,33	109,6932	280376,4347
200	-91	38,8	7.992,800	89,40	Válido	69,40	1,515717	105,19	125,19	122453574,8	109,6932	1116327,856
200	-91	36,9	7.601,400	87,19	Válido	67,19	1,515717	101,83	121,83	107544285,9	109,6932	980409,7785
Total de Válidos					110						Soma dos K0	99117961,31
											Somatoria ^{1/4}	99,77875718
											anterior +20	119,7787572
											Kjc Médio	111,0381381

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,0}	r-0,3068	Kjc-20 ⁴ / r - 0,3068
												81,03813805
												1,157687686
											Ln	0,146424642
											T - TO	7,706328908
25	-60	261	53.766,000	231,8749663	Válido					2015202002	120,6932	16696897,6
25	-60	62,3	12.833,800	113,2863628	Válido					75730816,98	120,6932	627465,4826
25	-60	81,3	16.747,800	129,4132914	Válido					143311265,7	120,6932	1187401,326
25	-60	54,2	11.165,200	105,66551	Válido					53854750,56	120,6932	446211,9701
25	-60	123,4	25.420,400	159,4377622	Válido					378025952,7	120,6932	3132123,041
25	-60	191,8	39.510,800	198,7732376	Válido					1021433322	120,6932	8463056,096
25	-60	74,6	15.367,600	123,9661244	Válido					116833508,7	120,6932	968020,64
25	-60	100,3	20.661,800	143,7421302	Válido					234460859,4	120,6932	1942618,635
25	-60	40,2	8.281,200	91,00109889	Válido					25413254,26	120,6932	210560,7794
25	-60	78,2	16.109,200	126,9220233	Válido					130697919,3	120,6932	1082893,811
25	-60	129	26.574,000	163,0153367	Válido					418341020,6	120,6932	3466152,365
25	-60	140,9	29.025,400	170,3684243	Válido					511242082,6	120,6932	4235881,413
25	-60	56,1	11.556,600	107,5016279	Válido					58622526,43	120,6932	485715,2386
25	-60	67,4	13.884,400	117,8320839	Válido					91606273,8	120,6932	759001,1185
25	-60	112,2	23.113,200	152,0302601	Válido					303874261,2	120,6932	2517741,358
25	-60	120,3	24.781,800	157,4223618	Válido					356639656,8	120,6932	2954927,509
25	-60	90	18.540,000	136,1616686	Válido					182075439,7	120,6932	1508580,763
25	-60	68	14.008,000	118,355397	Válido					93582099,2	120,6932	775371,7624
25	-60	81,4	16.768,400	129,4928569	Válido					143728585,3	120,6932	1190859,016
25	-60	141,9	29.231,400	170,9719275	Válido					519499100,1	120,6932	4304294,692
25	-60	34	7.004,000	83,68990381	Válido					16454412,17	120,6932	136332,5537
25	-60	284,9	58.689,400	242,2589524	Válido					2440265341	120,6932	20218747,54
25	-60	69	14.214,000	119,2224811	Válido					96926008,89	120,6932	803077,629
25	-60	52	10.712,000	103,4987923	Válido					48609457,63	120,6932	402752,2481
25	-60	127,4	26.244,400	162,0012346	Válido					406601035,8	120,6932	3368881,062
25	-60	193,2	39.799,200	199,4973684	Válido					1038083632	120,6932	8601011,753
25	-60	90,4	18.622,400	136,4639146	Válido					183977848,2	120,6932	1524343,113
25	-60	142,5	29.355,000	171,3330091	Válido					524486930,2	120,6932	4345621,213
25	-60	46,9	9.661,400	98,29242087	Válido					37573260,89	120,6932	311312,1609
25	-60	143,1	29.478,600	171,6933313	Válido					529499988,6	120,6932	4387156,762
25	-60	82,3	16.953,800	130,2067587	Válido					147513890,6	120,6932	1222222,052
50	-60	164,7	33.928,200	184,1960912	Válido	164,19609	1,148698	188,6117798	208,6117798	1265538183	120,6932	10485579,83
50	-60	109,7	22.598,200	150,326977	Válido	130,32698	1,148698	149,706384	169,706384	502297807,7	120,6932	4161773,884

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,0}	r-0,3068	Kjc-20 ⁴ / r - 0,3068
50	-60	59,4	12.236,400	110,6182625	Válido	90,618263	1,148698	104,0930491	124,0930491	117405088,4	120,6932	972756,4472
50	-60	98,6	20.311,600	142,5187707	Válido	122,51877	1,148698	140,7371104	160,7371104	392314643,6	120,6932	3250511,575
50	-60	52,9	10.897,400	104,3906126	Válido	84,390613	1,148698	96,93935788	116,9393579	88308102,81	120,6932	731674,2186
50	-60	112,9	23.257,400	152,5037704	Válido	132,50377	1,148698	152,2068631	172,2068631	536706608	120,6932	4446866,998
50	-60	147,8	30.446,800	174,4901143	Válido	154,49011	1,148698	177,4625402	197,4625402	991806099,6	120,6932	8217580,606
50	-60	82,9	17.077,400	130,6805265	Válido	110,68053	1,148698	127,1385387	147,1385387	261281620,9	120,6932	2164841,275
50	-60	198	40.788,000	201,9603922	Válido	181,96039	1,148698	209,0176031	229,0176031	1908672662	120,6932	15814251,85
50	-60	97	19.982,000	141,3577023	Válido	121,3577	1,148698	139,403393	159,403393	377653381,3	120,6932	3129036,112
50	-60	86,1	17.736,600	133,1788271	Válido	113,17883	1,148698	130,0083326	150,0083326	285683233,6	120,6932	2367020,127
50	-60	80,6	16.603,600	128,8549572	Válido	108,85496	1,148698	125,0415103	145,0415103	244465085,7	120,6932	2025508,361
50	-60	96,8	19.940,800	141,2118975	Válido	121,2119	1,148698	139,2359073	159,2359073	375841728,2	120,6932	3114025,713
50	-60	68,2	14.049,200	118,5293213	Válido	98,529321	1,148698	113,1804693	133,1804693	164091453,1	120,6932	1359574,965
50	-60	95,1	19.590,600	139,9664245	Válido	119,96642	1,148698	137,8052345	157,8052345	360630835,7	120,6932	2987996,305
50	-60	147,4	30.364,400	174,2538378	Válido	154,25384	1,148698	177,1911298	197,1911298	985752549,2	120,6932	8167424,09
50	-60	68,1	14.028,600	118,4423911	Válido	98,442391	1,148698	113,0806127	133,0806127	163513122,2	120,6932	1354783,221
50	-60	49,9	10.279,400	101,3873759	Válido	81,387376	1,148698	93,48954486	113,4895449	76392756,65	120,6932	632949,9645
50	-60	46,7	9.620,200	98,08261824	Válido	78,082618	1,148698	89,69337512	109,6933751	64720440,8	120,6932	536239,3308
50	-60	63,1	12.998,600	114,0114029	Válido	94,011403	1,148698	107,9907439	127,9907439	136002261,9	120,6932	1126842,788
50	-60	142,3	29.313,800	171,2127332	Válido	151,21273	1,148698	173,6978178	193,6978178	910285133,2	120,6932	7542141,009
50	-60	69,2	14.255,200	119,3951423	Válido	99,395142	1,148698	114,1750364	134,1750364	169935704,2	120,6932	1407997,337
50	-60	129,9	26.759,400	163,5830065	Válido	143,58301	1,148698	164,9335633	184,9335633	740007578,3	120,6932	6131311,277
50	-60	75,1	15.470,600	124,3808667	Válido	104,38087	1,148698	119,9021299	139,9021299	206684348,8	120,6932	1712477,163
50	-60	76,5	15.759,000	125,5348557	Válido	105,53486	1,148698	121,2277152	141,2277152	215977087,1	120,6932	1789471,876
50	-60	48	9.888,000	99,43842316	Válido	79,438423	1,148698	91,250786	111,250786	69334031,92	120,6932	574465,1059
50	-60	81,9	16.871,400	129,8899534	Válido	109,88995	1,148698	126,2304087	146,2304087	253896055,5	120,6932	2103648,387
50	-60	163,2	33.619,200	183,3553926	Válido	163,35539	1,148698	187,6460708	207,6460708	1239817893	120,6932	10272475,11
50	-60	127,4	26.244,400	162,0012346	Válido	142,00123	1,148698	163,1165846	183,1165846	707933521,5	120,6932	5865562,613
50	-60	76,2	15.697,200	125,2884671	Válido	105,28847	1,148698	120,944689	140,944689	213967202,5	120,6932	1772819,036
50	-60	129,1	26.594,600	163,0785087	Válido	143,07851	1,148698	164,3540476	184,3540476	729661809,8	120,6932	6045591,713
50	-60	176,8	36.420,800	190,8423433	Válido	170,84234	1,148698	196,2463187	216,2463187	1483221715	120,6932	12289190,4
50	-60	86,2	17.757,200	133,2561443	Válido	113,25614	1,148698	130,0971467	150,0971467	286464682,4	120,6932	2373494,799
50	-60	94,4	19.446,400	139,4503496	Válido	119,45035	1,148698	137,2124201	157,2124201	354465275,6	120,6932	2936911,737
100	-60	415,3	85.551,800	292,4923931	Válido	272,49239	1,319508	359,5558683	379,5558683	16713427618	120,6932	138478618,7
100	-60	225,7	46.494,200	215,6251377	Válido	195,62514	1,319508	258,1289167	278,1289167	4439628547	120,6932	36784413,26
100	-60	230	47.380,000	217,6694742	Válido	197,66947	1,319508	260,8264349	280,8264349	4628139291	120,6932	38346313,56
100	-60	131,1	27.006,600	164,3368492	Válido	144,33685	1,319508	190,4536143	210,4536143	1315700002	120,6932	10901194,12
100	-60	57,5	11.845,000	108,8347371	Válido	88,834737	1,319508	117,2181384	137,2181384	188790127,1	120,6932	1564215,11
100	-60	82,8	17.056,800	130,6016845	Válido	110,60168	1,319508	145,9397977	165,9397977	453622888,1	120,6932	3758479,252

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,0}	r-0,3068	Kjc-20 ⁴ / r - 0,3068
100	-60	88,3	18.189,800	134,8695666	Válido	114,86957	1,319508	151,5713019	171,5713019	527798222,5	120,6932	4373056,829
100	-60	113	23.278,000	152,5712948	Válido	132,57129	1,319508	174,9288722	194,9288722	936366753,1	120,6932	7758239,512
100	-60	64	13.184,000	114,8216008	Válido	94,821601	1,319508	125,1178523	145,1178523	245062649,1	120,6932	2030459,455
100	-60	107,7	22.186,200	148,9503273	Válido	128,95033	1,319508	170,150977	190,150977	838180954	120,6932	6944723,928
100	-60	112,3	23.133,800	152,0979947	Válido	132,09799	1,319508	174,304349	194,304349	923066294,3	120,6932	7648038,948
100	-60	160,8	33.124,800	182,0021978	Válido	162,0022	1,319508	213,7631815	233,7631815	2088005406	120,6932	17300108,09
100	-60	265,4	54.672,400	233,8212993	Válido	213,8213	1,319508	282,1388959	302,1388959	6336535173	120,6932	52501177,97
100	-60	106,3	21.897,800	147,9790526	Válido	127,97905	1,319508	168,8693723	188,8693723	813211583,4	120,6932	6737840,934
100	-60	153,5	31.621,000	177,8229457	Válido	157,82295	1,319508	208,2486253	228,2486253	1880739183	120,6932	15582809,83
100	-60	150,2	30.941,200	175,9011086	Válido	155,90111	1,319508	205,7127461	225,7127461	1790790602	120,6932	14837543,47
100	-60	168,9	34.793,400	186,5298904	Válido	166,52989	1,319508	219,7375077	239,7375077	2331399922	120,6932	19316746,28
100	-60	86,1	17.736,600	133,1788271	Válido	113,17883	1,319508	149,3403578	169,3403578	497403399,9	120,6932	4121221,41
100	-60	282,6	58.215,600	241,2790915	Válido	221,27909	1,319508	291,9795117	311,9795117	7267909518	120,6932	60218053,03
100	-60	115,5	23.793,000	154,2497974	Válido	134,2498	1,319508	177,1436697	197,1436697	984696850,9	120,6932	8158677,132
100	-60	128,1	26.388,600	162,4456832	Válido	142,44568	1,319508	187,9582059	207,9582059	1248087873	120,6932	10340995,79
100	-60	102,2	21.053,200	145,0972088	Válido	125,09721	1,319508	165,0667566	185,0667566	742400869,5	120,6932	6151140,822
100	-60	68,5	14.111,000	118,7897302	Válido	98,78973	1,319508	130,3538305	150,3538305	288732180,3	120,6932	2392282,087
100	-60	30,4	6.262,400	79,13532713	Válido	59,135327	1,319508	78,02953195	98,02953195	37071145,64	120,6932	307151,8995
100	-60	94,5	19.467,000	139,5241915	Válido	119,52419	1,319508	157,7131161	177,7131161	618687371	120,6932	5126116,227
100	-60	63,3	13.039,800	114,1919437	Válido	94,191944	1,319508	124,2870148	144,2870148	238617904,8	120,6932	1977061,714
100	-60	89,4	18.416,400	135,7070374	Válido	115,70704	1,319508	152,6763512	172,6763512	543359280	120,6932	4501987,518
100	-60	132,7	27.336,200	165,3366263	Válido	145,33663	1,319508	191,7728281	211,7728281	1352534314	120,6932	11206383,74
100	-60	241,9	49.831,400	223,2294783	Válido	203,22948	1,319508	268,1629044	288,1629044	5171241293	120,6932	42846169,4
100	-60	191,9	39.531,400	198,8250487	Válido	178,82505	1,319508	235,9610664	255,9610664	3099997912	120,6932	25684942,58
25	-60	128,7	26.512,200	162,8256737	Válido					416126261,3	120,6932	3447802,041
25	-60	176	36.256,000	190,4100838	Válido					843298173,6	120,6932	6987122,502
25	-60	131,7	27.130,200	164,7124768	Válido					438554837,8	120,6932	3633633,36
25	-60	150,4	30.982,400	176,0181809	Válido					592517033	120,6932	4909282,652
25	-60	133,7	27.542,200	165,9584285	Válido					453854572,7	120,6932	3760398,868
25	-60	78,7	16.212,200	127,3271377	Válido					132689998,7	120,6932	1099399,127
25	-60	678,2	139.709,200	373,7769388	Censurado					0	120,6932	2,184139821
25	-60	46,1	9.496,600	97,45050026	Válido					35982961,89	120,6932	298135,7847
25	-60	369,1	76.034,600	275,7437216	Censurado					0	120,6932	2,184139821
25	-60	275,9	56.835,400	238,4017617	Válido					2275226038	120,6932	18851319,19
25	-60	687,7	141.666,200	376,3857064	Censurado					0	120,6932	2,184139821
25	-60	140,7	28.984,200	170,2474669	Válido					509599080,2	120,6932	4222268,365
25	-60	89,1	18.354,600	135,4791497	Válido					177833800,3	120,6932	1473436,783
25	-60	87,8	18.086,800	134,4871741	Válido					171801655	120,6932	1423457,618

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,0}	r-0,3068	Kjc-20 ⁴ / r - 0,3068	
25	-60	219,5	45.217,000	212,6428931	Válido					1377247421	120,6932	11411143,47	
25	-60	427,1	87.982,600	296,6186103	Censurado					0	120,6932	2,184139821	
25	-60	197,6	40.705,600	201,7562886	Válido					1091334248	120,6932	9042218,182	
25	-60	64,1	13.204,600	114,9112701	Válido					81146751,92	120,6932	672339,0541	
25	-60	234,5	48.307,000	219,7885347	Válido					1593243836	120,6932	13200775,49	
25	-60	133,7	27.542,200	165,9584285	Válido					453854572,7	120,6932	3760398,868	
25	-60	38,4	7.910,400	88,9404295	Válido					22588944,53	120,6932	187160,0433	
25	-60	116,3	23.957,800	154,783074	Válido					330020888	120,6932	2734378,474	
25	-60	166,1	34.216,600	184,9772959	Válido					740792750,6	120,6932	6137816,8	
25	-60	217,1	44.722,600	211,4771855	Válido					1344213155	120,6932	11137439,02	
25	-60	129	26.574,000	163,0153367	Válido					418341020,6	120,6932	3466152,365	
25	-60	373,6	76.961,600	277,4195379	Censurado					0	120,6932	2,184139821	
25	-60	164,6	33.907,600	184,140164	Válido					725871010,5	120,6932	6014183,156	
25	-60	77,7	16.006,200	126,5156117	Válido					128722084,2	120,6932	1066523,086	
25	-60	200,2	41.241,200	203,0792949	Válido					1123458215	120,6932	9308380,379	
25	-60	63,6	13.101,600	114,4622208	Válido					79621912,89	120,6932	659705,0446	
25	-60	55	11.330,000	106,4424727	Válido					55835283,59	120,6932	462621,6191	
					T. Válidos	121						Soma dos K0	939405692,8
					T. Censurados	5						Somatoria ^{1/4}	175,0706309
										anterior +20	195,0706309		
										Kjc Médio	179,7344437		
											149,7344437		
											2,139063481		
										LN	0,760368108		
										T - T0	40,0181735		
25	-40	155,4	32.012,400	178,9200939	Válido					637845141,6	76,6932	8316840,889	
25	-40	203,4	41.900,400	204,695872	Válido					1163667099	76,6932	15173015,33	
25	-40	275,9	56.835,400	238,4017617	Válido					2275226038	76,6932	29666594,14	
25	-40	349,2	71.935,200	268,2073824	Censurado					0	76,6932	3,430412845	
25	-40	165,5	34.093,000	184,6428986	Válido					734804848,9	76,6932	9581095,181	
25	-40	311,7	64.210,200	253,3973165	Válido					2967450160	76,6932	38692480,69	
25	-40	254,5	52.427,000	228,9694303	Válido					1906913682	76,6932	24864181,98	
25	-40	548,6	113.011,600	336,1719798	Censurado					0	76,6932	3,430412845	
25	-40	773,9	159.423,400	399,2785995	Censurado					0	76,6932	3,430412845	
25	-40	758,7	156.292,200	395,3380832	Censurado					0	76,6932	3,430412845	
25	-40	139,3	28.695,800	169,3983471	Válido					498176423,4	76,6932	6495705,27	
25	-40	1544,1	318.084,600	563,9898935	Censurado					0	76,6932	3,430412845	
25	-40	136,6	28.139,600	167,7486215	Válido					476533843,6	76,6932	6213508,415	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,0}	r-0,3068	Kjc-20 ⁴ / r - 0,3068	
25	-40	1433,6	295.321,600	543,4350007	Censurado					0	76,6932	3,430412845	
25	-40	1337,1	275.442,600	524,826257	Censurado					0	76,6932	3,430412845	
25	-40	483,2	99.539,200	315,498336	Censurado					0	76,6932	3,430412845	
25	-40	1573,3	324.099,800	569,2976374	Censurado					0	76,6932	3,430412845	
25	-40	619,9	127.699,400	357,3505282	Censurado					0	76,6932	3,430412845	
25	-40	562,8	115.936,800	340,4949339	Censurado					0	76,6932	3,430412845	
25	-40	264,8	54.548,800	233,5568453	Válido					2079955231	76,6932	27120464,8	
25	-40	1337,2	275.463,200	524,8458821	Censurado					0	76,6932	3,430412845	
25	-40	1174	241.844,000	491,7763719	Censurado					0	76,6932	3,430412845	
25	-40	1714,3	353.145,800	594,2607172	Censurado					0	76,6932	3,430412845	
25	-40	61,6	12.689,600	112,6481247	Válido					73679476,71	76,6932	960704,1655	
25	-40	251	51.706,000	227,3895336	Válido					1849896113	76,6932	24120731,86	
25	-40	113,2	23.319,200	152,706254	Válido					310145554,3	76,6932	4043977,228	
25	-40	233,2	48.039,200	219,1784661	Válido					1573872452	76,6932	20521668,83	
25	-40	1127,9	232.347,400	482,0242732	Censurado					0	76,6932	3,430412845	
25	-40	283	58.298,000	241,4497877	Válido					2404922433	76,6932	31357700,98	
25	-40	195,2	40.211,200	200,5273049	Válido					1062115127	76,6932	13848882,65	
50	-40	187	38.522,000	196,2702219	Válido	176,27022	1,148698	202,4813139	222,4813139	1680891966	76,6932	21917092,59	
50	-40	107,5	22.145,000	148,8119619	Válido	128,81196	1,148698	147,9660887	167,9660887	479345633,9	76,6932	6250171,252	
50	-40	245	50.470,000	224,6552915	Válido	204,65529	1,148698	235,0871967	Válido	255,0871967	3054329656	76,6932	39825299,45
50	-40	119	24.514,000	156,5694734	Válido	136,56947	1,148698	156,8771294	176,8771294	605673448,9	76,6932	7897355,292	
50	-40	313,1	64.498,600	253,9657457	Válido	233,96575	1,148698	268,7560672	288,7560672	5217147428	76,6932	68026206,08	
50	-40	205,3	42.291,800	205,6497022	Válido	185,6497	1,148698	213,2555075	233,2555075	2068240432	76,6932	26967715,94	
50	-40	217,1	44.722,600	211,4771855	Válido	191,47719	1,148698	219,949528	239,949528	2340411038	76,6932	30516539,12	
50	-40	308,7	63.592,200	252,1749393	Válido	232,17494	1,148698	266,6989708	286,6989708	5059240899	76,6932	65967268,27	
50	-40	274,2	56.485,200	237,6661524	Válido	217,66615	1,148698	250,0327512	270,0327512	3908297353	76,6932	50960154,91	
50	-40	455,2	93.771,200	306,2208353	Válido	286,22084	1,148698	328,7814027	348,7814027	11685006978	76,6932	152360404,6	
50	-40	167	34.402,000	185,4777615	Válido	165,47776	1,148698	190,0840324	210,0840324	1305517043	76,6932	17022591,87	
50	-40	49,1	10.114,600	100,5713677	Válido	80,571368	1,148698	92,55219753	112,5521975	73374801,58	76,6932	956731,5171	
50	-40	93,8	19.322,800	139,0064747	Válido	119,00647	1,148698	136,7025417	156,7025417	349225829,5	76,6932	4553543,594	
50	-40	107,4	22.124,400	148,7427309	Válido	128,74273	1,148698	147,8865632	167,8865632	478315952,5	76,6932	6236745,272	
50	-40	167	34.402,000	185,4777615	Válido	165,47776	1,148698	190,0840324	210,0840324	1305517043	76,6932	17022591,87	
50	-40	212,8	43.836,800	209,3723955	Válido	189,3724	1,148698	217,5317592	237,5317592	2239188671	76,6932	29196704,15	
50	-40	122,7	25.276,200	158,9849049	Válido	138,9849	1,148698	159,6517317	179,6517317	649672575,1	76,6932	8471058,387	
50	-40	219,3	45.175,800	212,545995	Válido	192,546	1,148698	221,1772677	241,1772677	2393106108	76,6932	31203628,33	
50	-40	168,9	34.793,400	186,5298904	Válido	166,52989	1,148698	191,2926111	211,2926111	1339037628	76,6932	17459665,62	
50	-40	272,7	56.176,200	237,0151894	Válido	217,01519	1,148698	249,2849911	269,2849911	3861753290	76,6932	50353268,48	
50	-40	60,6	12.483,600	111,7300318	Válido	91,730032	1,148698	105,3701366	125,3701366	123273626,5	76,6932	1607360,581	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,0}	r-0,3068	Kjc-20 ⁴ / r - 0,3068
50	-40	271,9	56.011,400	236,667277	Válido	216,66728	1,148698	248,8853447	268,8853447	3837048579	76,6932	50031144,6
50	-40	386,6	79.639,600	282,2048901	Válido	262,20489	1,148698	301,1943259	321,1943259	8229759511	76,6932	107307551,5
50	-40	308,8	63.612,800	252,2157806	Válido	232,21578	1,148698	266,7458852	286,7458852	5062801675	76,6932	66013697,11
50	-40	349,4	71.976,400	268,2841777	Válido	248,28418	1,148698	285,2036265	305,2036265	6616375942	76,6932	86270698,6
50	-40	166,5	34.299,000	185,199892	Válido	165,19989	1,148698	189,7648442	209,7648442	1296770233	76,6932	16908542,52
50	-40	137,8	28.386,800	168,4838271	Válido	148,48383	1,148698	170,563128	190,563128	846331699,5	76,6932	11035289,95
50	-40	313,1	64.498,600	253,9657457	Válido	233,96575	1,148698	268,7560672	288,7560672	5217147428	76,6932	68026206,08
50	-40	139,9	28.819,400	169,7627757	Válido	149,76278	1,148698	172,032254	192,032254	875869732,7	76,6932	11420435,35
50	-40	50,6	10.423,600	102,0960332	Válido	82,096033	1,148698	94,30357832	114,3035783	79088381,64	76,6932	1031230,691
50	-40	251,8	51.870,800	227,7516191	Válido	207,75162	1,148698	238,6439431	258,6439431	3243408608	76,6932	42290693,41
50	-40	210	43.260,000	207,9903844	Válido	187,99038	1,148698	215,9442453	235,9442453	2174535691	76,6932	28353696,16
100	-40	75,5	15.553,000	124,7116675	Válido	104,71167	1,319508	138,1678736	158,1678736	364441894	76,6932	4751945,335
100	-40	79,1	16.294,600	127,6503036	Válido	107,6503	1,319508	142,0454271	162,0454271	407107429,8	76,6932	5308259,791
100	-40	187,7	38.666,200	196,6372294	Válido	176,63723	1,319508	233,0742216	253,0742216	2951052731	76,6932	38478675,17
100	-40	214,1	44.104,600	210,0109521	Válido	190,01095	1,319508	250,7209544	270,7209544	3951504942	76,6932	51523537,19
100	-40	91,5	18.849,000	137,2916603	Válido	117,29166	1,319508	154,7672737	174,7672737	573741849,8	76,6932	7481000,269
100	-40	167,8	34.566,800	185,9214888	Válido	165,92149	1,319508	218,934717	238,934717	2297515960	76,6932	29957231,67
100	-40	142,5	29.355,000	171,3330091	Válido	151,33301	1,319508	199,6851026	219,6851026	1589947058	76,6932	20731265,07
100	-40	153,4	31.600,400	177,7650134	Válido	157,76501	1,319508	208,1721833	228,1721833	1877979244	76,6932	24486906,85
100	-40	110,9	22.845,400	151,1469484	Válido	131,14695	1,319508	173,0494358	193,0494358	896769339,1	76,6932	11692944,6
100	-40	112,4	23.154,400	152,1656992	Válido	132,1657	1,319508	174,3936856	194,3936856	924960153,2	76,6932	12060523,66
100	-40	99,6	20.517,600	143,2396593	Válido	123,23966	1,319508	162,6157054	182,6157054	699278135,6	76,6932	9117863,587
100	-40	108,2	22.289,200	149,2956798	Válido	129,29568	1,319508	170,6066723	190,6066723	847196296	76,6932	11046563,4
100	-40	92,1	18.972,600	137,7410614	Válido	117,74106	1,319508	155,360262	175,360262	582585645,1	76,6932	7596314,212
100	-40	160,5	33.063,000	181,8323404	Válido	161,83234	1,319508	213,5390533	233,5390533	2079262170	76,6932	27111428,01
100	-40	96	19.776,000	140,6271666	Válido	120,62717	1,319508	159,1685006	179,1685006	641842544,9	76,6932	8368962,892
100	-40	166,8	34.360,800	185,3666637	Válido	165,36666	1,319508	218,2026209	238,2026209	2266939088	76,6932	29558540,88
100	-40	141,2	29.087,200	170,5496995	Válido	150,5497	1,319508	198,6515195	218,6515195	1557283080	76,6932	20305360,58
100	-40	186,7	38.460,200	196,1127227	Válido	176,11272	1,319508	232,3821308	252,3821308	2916157110	76,6932	38023672,37
100	-40	81	16.686,000	129,1743008	Válido	109,1743	1,319508	144,0563536	164,0563536	430655175,3	76,6932	5615298,035
100	-40	95,6	19.693,600	140,3338876	Válido	120,33389	1,319508	158,7815166	178,7815166	635623262,2	76,6932	8287869,88
100	-40	86,1	17.736,600	133,1788271	Válido	113,17883	1,319508	149,3403578	169,3403578	497403399,9	76,6932	6485625,843
100	-40	63,5	13.081,000	114,3721994	Válido	94,372199	1,319508	124,5248637	144,5248637	240449733,5	76,6932	3135215,814
100	-40	40	8.240,000	90,77444574	Válido	70,774446	1,319508	93,38744104	113,387441	76059576,14	76,6932	991738,2003
100	-40	94,8	19.528,800	139,7454829	Válido	119,74548	1,319508	158,005112	178,005112	623281953,3	76,6932	8126951,977
100	-40	272,3	56.093,800	236,8412971	Válido	216,8413	1,319508	286,1238069	306,1238069	6702178322	76,6932	87389472,89
100	-40	282,2	58.133,200	241,1082744	Válido	221,10827	1,319508	291,7541173	311,7541173	7245493550	76,6932	94473741,48
100	-40	175,4	36.132,400	190,085244	Válido	170,08524	1,319508	224,428825	244,428825	2536965393	76,6932	33079404,6

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,0}	r-0,3068	Kjc-20 ⁴ / r - 0,3068	
100	-40	102,6	21.135,600	145,3808791	Válido	125,38088	1,319508	165,4410618	185,4410618	749157677,9	76,6932	9768241,225	
100	-40	124	25.544,000	159,8249042	Válido	139,8249	1,319508	184,5000672	204,5000672	1158740308	76,6932	15108775,07	
100	-40	96,4	19.858,400	140,9198354	Válido	120,91984	1,319508	159,5546793	179,5546793	648094270,3	76,6932	8450478,925	
					Válidos	77						Somatoria	2042952696
					Censurados	15						Somatoria ^{1/4}	212,600645
										K0	232,600645		
										Kjc Médio	213,9768285		
											183,9768285		
											2,628240407		
										Ln	0,966314575		
										T-T0	50,8571361		
25	-20	258,8	53.312,800	230,8956474	Válido					1978201225	62,6932	31553680,87	
25	-20	723,7	149.082,200	386,1116419	Censurado					0	62,6932	4,073937366	
25	-20	1133,7	233.542,200	483,2620407	Censurado					0	62,6932	4,073937366	
25	-20	914,9	188.469,400	434,1306255	Censurado					0	62,6932	4,073937366	
25	-20	1554,5	320.227,000	565,8860309	Censurado					0	62,6932	4,073937366	
25	-20	1497,2	308.423,200	555,3586229	Censurado					0	62,6932	4,073937366	
25	-20	1499	308.794,000	555,6923609	Censurado					0	62,6932	4,073937366	
25	-20	1575	324.450,000	569,6051264	Censurado					0	62,6932	4,073937366	
25	-20	1480,1	304.900,600	552,178051	Censurado					0	62,6932	4,073937366	
25	-20	1560,5	321.463,000	566,9770718	Censurado					0	62,6932	4,073937366	
25	-20	78,9	16.253,400	127,488823	Válido					133491382,3	62,6932	2129280,086	
25	-20	102,7	21.156,200	145,4517102	Válido					247688786	62,6932	3950807,839	
25	-20	772,5	159.135,000	398,9172847	Censurado					0	62,6932	4,073937366	
25	-20	798,3	164.449,800	405,5241053	Censurado					0	62,6932	4,073937366	
25	-20	1340	276.040,000	525,3950894	Censurado					0	62,6932	4,073937366	
25	-20	1348,6	277.811,600	527,0783623	Censurado					0	62,6932	4,073937366	
25	-20	1361,1	280.386,600	529,5154389	Censurado					0	62,6932	4,073937366	
25	-20	1368,5	281.911,000	530,9529169	Censurado					0	62,6932	4,073937366	
25	-20	1368,6	281.931,600	530,9723157	Censurado					0	62,6932	4,073937366	
25	-20	1371,1	282.446,600	531,4570538	Censurado					0	62,6932	4,073937366	
25	-20	1381,3	284.547,800	533,4302204	Censurado					0	62,6932	4,073937366	
25	-20	1391	286.546,000	535,2999159	Censurado					0	62,6932	4,073937366	
25	-20	1408,2	290.089,200	538,5992945	Censurado					0	62,6932	4,073937366	
25	-20	1436,3	295.877,800	543,9465047	Censurado					0	62,6932	4,073937366	
25	-20	1459,7	300.698,200	548,3595536	Censurado					0	62,6932	4,073937366	
25	-20	1472,5	303.335,000	550,7585678	Censurado					0	62,6932	4,073937366	
25	-20	1473,7	303.582,200	550,9829398	Censurado					0	62,6932	4,073937366	
25	-20	1496,6	308.299,600	555,2473323	Censurado					0	62,6932	4,073937366	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,0}	r-0,3068	Kjc-20 ⁴ / r - 0,3068
25	-20	1524,5	314.047,000	560,398965	Censurado					0	62,6932	4,073937366
25	-20	1547,8	318.846,800	564,6652105	Censurado					0	62,6932	4,073937366
25	-20	1553,3	319.979,800	565,6675702	Censurado					0	62,6932	4,073937366
50	-20	195,2	40.211,200	200,5273049	Válido	180,5273	1,148698	207,3714181	227,3714181	1849249844	62,6932	29496816,94
50	-20	180,6	37.203,600	192,8823476	Válido	172,88235	1,148698	198,5896682	218,5896682	1555344512	62,6932	24808823,16
50	-20	328,8	67.732,800	260,2552593	Válido	240,25526	1,148698	275,9808212	295,9808212	5801170236	62,6932	92532686,73
50	-20	168,1	34.628,600	186,0876138	Válido	166,08761	1,148698	190,7845687	210,7845687	1324869123	62,6932	21132580,93
50	-20	362,3	74.633,800	273,191874	Válido	253,19187	1,148698	290,8410891	310,8410891	7155220951	62,6932	114130734,3
50	-20	326,5	67.259,000	259,3434017	Válido	239,3434	1,148698	274,9333718	294,9333718	5713600006	62,6932	91135880,86
50	-20	655,6	135.053,600	367,4963945	Censurado	347,49639	1,148698	399,1685368	419,1685368	0	62,6932	5,761417506
50	-20	648,8	133.652,800	365,5855577	Censurado	345,58556	1,148698	396,9735616	416,9735616	0	62,6932	5,761417506
50	-20	1017	209.502,000	457,7138844	Censurado	437,71388	1,148698	502,801219	522,801219	0	62,6932	5,761417506
50	-20	486,8	100.280,800	316,6714386	Válido	296,67144	1,148698	340,7859934	360,7859934	13487359903	62,6932	5,761417506
50	-20	1619	333.514,000	577,5067099	Censurado	557,50671	1,148698	640,4070406	660,4070406	0	62,6932	5,761417506
50	-20	256	52.736,000	229,6432015	Válido	209,6432	1,148698	240,8168007	260,8168007	3363156907	62,6932	53644684,07
50	-20	695	143.170,000	378,3781178	Censurado	358,37812	1,148698	411,6683543	431,6683543	0	62,6932	5,761417506
50	-20	417	85.902,000	293,0904297	Válido	273,09043	1,148698	313,6985274	333,6985274	9683891613	62,6932	154464784,3
50	-20	1582	325.892,000	570,8695122	Censurado	550,86951	1,148698	632,7829025	652,7829025	0	62,6932	5,761417506
50	-20	807	166.242,000	407,7278504	Censurado	387,72785	1,148698	445,382344	465,382344	0	62,6932	5,761417506
50	-20	447	92.082,000	303,4501607	Válido	283,45016	1,148698	325,5987333	345,5987333	11239081653	62,6932	179271143,5
50	-20	502	103.412,000	321,5773624	Censurado	301,57736	1,148698	346,4214201	366,4214201	0	62,6932	5,761417506
50	-20	380	78.280,000	279,7856322	Válido	259,78563	1,148698	298,4153284	318,4153284	7930206737	62,6932	126492294,8
50	-20	291	59.946,000	244,8387224	Válido	224,83872	1,148698	258,2718706	278,2718706	4449471528	62,6932	70972155,32
50	-20	259	53.354,000	230,984848	Válido	210,98485	1,148698	242,3579478	262,3579478	3450079206	62,6932	55031155
50	-20	480	98.880,000	314,4519041	Válido	294,4519	1,148698	338,2364179	358,2364179	13088246473	62,6932	5,761417506
50	-20	1266	260.796,000	510,6818971	Censurado	490,6819	1,148698	563,645488	583,645488	0	62,6932	5,761417506
50	-20	330	67.980,000	260,7297451	Válido	240,72975	1,148698	276,5258622	296,5258622	5847133649	62,6932	93265835,04
50	-20	162	33.372,000	182,6800482	Válido	162,68005	1,148698	186,8703037	206,8703037	1219442048	62,6932	19450946
50	-20	392	80.752,000	284,1689638	Válido	264,16896	1,148698	303,4504542	323,4504542	8479127532	62,6932	135247962
50	-20	555	114.330,000	338,127195	Censurado	318,1272	1,148698	365,4321856	385,4321856	0	62,6932	5,761417506
50	-20	820	168.920,000	410,9987835	Censurado	390,99878	1,148698	449,1396594	469,1396594	0	62,6932	5,761417506
50	-20	512	105.472,000	324,7645301	Censurado	304,76453	1,148698	350,0825144	370,0825144	0	62,6932	5,761417506
50	-20	139	28.634,000	169,2158385	Válido	149,21584	1,148698	171,4039882	191,4039882	863144865,6	62,6932	13767758,95
100	-20	193	39.758,000	199,3940822	Válido	179,39408	1,319508	236,7119106	256,7119106	3139644261	62,6932	50079502,42
100	-20	58,6	12.071,600	109,8708333	Válido	89,870833	1,319508	118,5852754	138,5852754	197752993,5	62,6932	3154297,333
100	-20	186,1	38.336,600	195,7973442	Válido	175,79734	1,319508	231,9659864	251,9659864	2895324414	62,6932	46182431,5
100	-20	188,4	38.810,400	197,0035533	Válido	177,00355	1,319508	233,5575888	253,5575888	2975609468	62,6932	47463033,76

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	KJc-20 ^{4,0}	r-0,3068	KJc-20 ⁴ / r - 0,3068
100	-20	191,7	39.490,200	198,721413	Válido	178,72141	1,319508	235,8243183	255,8243183	3092817905	62,6932	49332589,59
100	-20	130,8	26.944,800	164,1487131	Válido	144,14871	1,319508	190,2053672	210,2053672	1308853597	62,6932	20877122,19
100	-20	373,5	76.941,000	277,3824075	Válido	257,38241	1,319508	339,6181228	359,6181228	13303423868	62,6932	212198832,9
100	-20	371,9	76.611,400	276,7876442	Válido	256,78764	1,319508	338,833328	358,833328	13180882405	62,6932	210244211,6
100	-20	315,9	65.075,400	255,0988044	Válido	235,0988	1,319508	310,2147322	330,2147322	9260824947	62,6932	147716577,7
100	-20	334,9	68.989,400	262,6583332	Válido	242,65833	1,319508	320,1895903	340,1895903	10510632069	62,6932	167651867,7
100	-20	133,4	27.480,400	165,7721328	Válido	145,77213	1,319508	192,3474823	212,3474823	1368818999	62,6932	21833611,93
100	-20	112,2	23.113,200	152,0302601	Válido	132,03026	1,319508	174,2149727	194,2149727	921174503,7	62,6932	14693371,91
100	-20	212,5	43.775,000	209,2247595	Válido	189,22476	1,319508	249,6835671	269,6835671	3886510462	62,6932	61992536,06
100	-20	231,2	47.627,200	218,2365689	Válido	198,23657	1,319508	261,5747209	281,5747209	4681479027	62,6932	74672835,76
100	-20	247,3	50.943,800	225,7073326	Válido	205,70733	1,319508	271,4324527	291,4324527	5428090555	62,6932	86581807,19
100	-20	212,3	43.733,800	209,1262776	Válido	189,12628	1,319508	249,5536195	269,5536195	3878425850	62,6932	61863580,89
100	-20	224,4	46.226,400	215,0032558	Válido	195,00326	1,319508	257,3083386	277,3083386	4383443800	62,6932	69918967,28
100	-20	100,6	20.723,600	143,956938	Válido	123,95694	1,319508	163,5621603	183,5621603	715700551,6	62,6932	11415919,93
100	-20	123,7	25.482,200	159,6314505	Válido	139,63145	1,319508	184,2448036	204,2448036	1152340940	62,6932	18380636,81
100	-20	82,8	17.056,800	130,6016845	Válido	110,60168	1,319508	145,9397977	165,9397977	453622888,1	62,6932	7235599,524
100	-20	223	45.938,000	214,3315189	Válido	194,33152	1,319508	256,4219765	276,4219765	4323355756	62,6932	68960521,32
100	-20	74,4	15.326,400	123,7998384	Válido	103,79984	1,319508	136,964708	156,964708	351912508,2	62,6932	5613248,457
100	-20	683,1	140.718,600	375,1247792	Válido	355,12478	1,319508	468,5899555	488,5899555	48213859735	62,6932	8,14787473
100	-20	288,5	59.431,000	243,7847411	Válido	223,78474	1,319508	295,2857362	315,2857362	7602735392	62,6932	121268899,9
100	-20	299,8	61.758,800	248,5131787	Válido	228,51318	1,319508	301,524947	321,524947	8265954292	62,6932	131847701,1
100	-20	301,3	62.067,800	249,1341004	Válido	229,1341	1,319508	302,3442582	322,3442582	8356162965	62,6932	133286591,9
100	-20	384,1	79.124,600	281,2909526	Válido	261,29095	1,319508	344,7754789	364,7754789	14130108014	62,6932	225385018,1
100	-20	324,6	66.867,600	258,5877027	Válido	238,5877	1,319508	314,8183612	334,8183612	9822911136	62,6932	156682242
100	-20	588,7	121.272,200	348,2415828	Válido	328,24158	1,319508	433,1173652	453,1173652	35190252721	62,6932	561308925,4
100	-20	318,2	65.549,200	256,02578	Válido	236,02578	1,319508	311,4378838	331,4378838	9407749801	62,6932	150060130,9
200	-20	117	24.102,000	155,2481884	Válido	135,24819	1,515717	204,9979197	224,9979197	1766028939	62,6932	28169385,82
200	-20	234	48.204,000	219,5540936	Válido	199,55409	1,515717	302,4674455	322,4674455	8369789856	62,6932	133503950,3
200	-20	179	36.874,000	192,0260399	Válido	172,02604	1,515717	260,7427185	280,7427185	4622200253	62,6932	73727298,22
200	-20	175	36.050,000	189,8683755	Válido	169,86838	1,515717	257,4723108	277,4723108	4394628049	62,6932	70097363,81
200	-20	162	33.372,000	182,6800482	Válido	162,68005	1,515717	246,5768441	266,5768441	3696657027	62,6932	58964242,17
200	-20	166	34.196,000	184,921605	Válido	164,92161	1,515717	249,9744089	269,9744089	3904650801	62,6932	62281887,05
200	-20	162	33.372,000	182,6800482	Válido	162,68005	1,515717	246,5768441	266,5768441	3696657027	62,6932	58964242,17
200	-20	179	36.874,000	192,0260399	Válido	172,02604	1,515717	260,7427185	280,7427185	4622200253	62,6932	73727298,22
200	-20	199	40.994,000	202,4697508	Válido	182,46975	1,515717	276,5724242	296,5724242	5851072852	62,6932	93328668,06
200	-20	239	49.234,000	221,8873588	Válido	201,88736	1,515717	306,0040143	326,0040143	8768160588	62,6932	139858239,6
200	-20	112	23.072,000	151,8947004	Válido	131,8947	1,515717	199,9149824	219,9149824	1597281170	62,6932	25477741,93
200	-20	236	48.616,000	220,4903626	Válido	200,49036	1,515717	303,886564	323,886564	8527976497	62,6932	136027136,9

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,0}	r-0,3068	Kjc-20 ⁴ / r - 0,3068	
200	-20	125	25.750,000	160,4680654	Válido	140,46807	1,515717	212,9097737	232,9097737	2054860735	62,6932	32776453,19	
200	-20	168	34.608,000	186,0322553	Válido	166,03226	1,515717	251,6578399	271,6578399	4010900219	62,6932	63976638,92	
200	-20	187	38.522,000	196,2702219	Válido	176,27022	1,515717	267,1756955	287,1756955	5095511597	62,6932	81276942,28	
					Válidos	66						Somatoria	5382540315
					Censurados	40						Somatoria ^{1/4}	270,8612154
										K0	290,8612154		
										Kjc Médio	267,1337729		
											237,1337729		
											3,387625327		
										Ln	1,220129182		
										T-T0	64,21539887		

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,5}	r-0,3068	Kjc-20 ^{4,5} / r - 0,3068
25	-91	76,8	15.820,800	125,78	Válido					1287745686	109,6932	11739521,56
25	-91	70,6	14.543,600	120,60	Válido					1027140136	109,6932	9363753,958
25	-91	23,7	4.882,200	69,87	Válido					43690255,82	109,6932	398295,0249
25	-91	42,3	8.713,800	93,35	Válido					247879285,4	109,6932	2259750,699
25	-91	77,2	15.903,200	126,11	Válido					1305763604	109,6932	11903778,94
25	-91	68,5	14.111,000	118,79	Válido					946679770,9	109,6932	8630250,288
25	-91	52	10.712,000	103,50	Válido					444181915,1	109,6932	4049311,308
25	-91	29,4	6.056,400	77,82	Válido					85005806,78	109,6932	774941,4438
25	-91	46,3	9.537,800	97,66	Válido					320575282	109,6932	2922471,785
25	-91	124,3	25.605,800	160,02	Válido					4548090995	109,6932	41461922,84
25	-91	39,7	8.178,200	90,43	Válido					206539901,5	109,6932	1882887,011
25	-91	63,3	13.039,800	114,19	Válido					763944686,3	109,6932	6964375,971
25	-91	71,4	14.708,400	121,28	Válido					1058819036	109,6932	9652549,437
25	-91	76	15.656,000	125,12	Válido					1252152736	109,6932	11415044,29
25	-91	55,9	11.515,400	107,31	Válido					542980436	109,6932	4949991,759
25	-91	21,3	4.387,800	66,24	Válido					31088525,3	109,6932	283413,4231
25	-91	76,5	15.759,000	125,53	Válido					1274329225	109,6932	11617212,6
25	-91	23,1	4.758,600	68,98	Válido					40289187,71	109,6932	367289,7474
25	-91	70,2	14.461,200	120,25	Válido					1011514041	109,6932	9221301,237
25	-91	38,6	7.951,600	89,17	Válido					190405406,6	109,6932	1735799,545
25	-91	112,8	23.236,800	152,44	Válido					3540221524	109,6932	32273846,73
25	-91	19,9	4.099,400	64,03	Válido					24929654,31	109,6932	227267,0896
25	-91	77	15.862,000	125,94	Válido					1296736155	109,6932	11821481,68
25	-91	47,3	9.743,800	98,71	Válido					340527114	109,6932	3104359,377
25	-91	48,9	10.073,400	100,37	Válido					373967266,2	109,6932	3409211,02
25	-91	93,9	19.343,400	139,08	Válido					2194238240	109,6932	20003411,7
25	-91	29,1	5.994,600	77,42	Válido					82403903,84	109,6932	751221,624
25	-91	56,6	11.659,600	107,98	Válido					561978291,4	109,6932	5123182,58
25	-91	51,4	10.588,400	102,90	Válido					430025532,2	109,6932	3920256,973
25	-91	76,6	15.779,600	125,62	Válido					1278792154	109,6932	11657898,16
25	-91	59,4	12.236,400	110,62	Válido					641905044,8	109,6932	5851821,67
50	-91	22,4	4.614,400	67,93	Válido	47,93	1,166529	55,91	75,91	73069804,52	109,6932	666128,8441
50	-91	31,7	6.530,200	80,81	Válido	60,81	1,166529	70,94	90,94	213258502,6	109,6932	1944136,032
50	-91	14,9	3.069,400	55,40	Válido	35,40	1,166529	41,30	61,30	18692364,91	109,6932	170405,8675
50	-91	46,5	9.579,000	97,87	Válido	77,87	1,166529	90,84	110,84	649015632,7	109,6932	5916644,174
50	-91	24,6	5.067,600	71,19	Válido	51,19	1,166529	59,71	79,71	98231663,77	109,6932	895512,7917
50	-91	58,7	12.092,200	109,96	Válido	89,96	1,166529	104,95	124,95	1242656588	109,6932	11328474,22
50	-91	41,6	8.569,600	92,57	Válido	72,57	1,166529	84,66	104,66	472600872,1	109,6932	4308388,051

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,5}	r-0,3068	Kjc-20 ^{4,5} / r - 0,3068
50	-91	30,4	6.262,400	79,14	Válido	59,14	1,166529	68,98	88,98	188079521,8	109,6932	1714595,999
50	-91	46,1	9.496,600	97,45	Válido	77,45	1,166529	90,35	110,35	633343063,1	109,6932	5773767,774
50	-91	48,7	10.032,200	100,16	Válido	80,16	1,166529	93,51	113,51	739368441,3	109,6932	6740330,679
50	-91	30,2	6.221,200	78,87	Válido	58,87	1,166529	68,68	88,68	184376398,3	109,6932	1680837,083
50	-91	47,3	9.743,800	98,71	Válido	78,71	1,166529	91,82	111,82	681054228	109,6932	6208718,754
50	-91	55,6	11.453,600	107,02	Válido	87,02	1,166529	101,51	121,51	1069915267	109,6932	9753706,404
50	-91	41,5	8.549,000	92,46	Válido	72,46	1,166529	84,53	104,53	469347083,6	109,6932	4278725,423
50	-91	18,3	3.769,800	61,40	Válido	41,40	1,166529	48,29	68,29	37798104,64	109,6932	344580,1986
50	-91	54,6	11.247,600	106,05	Válido	86,05	1,166529	100,39	120,39	1017456236	109,6932	9275472,28
50	-91	100,5	20.703,000	143,89	Válido	123,89	1,166529	144,52	164,52	5243485993	109,6932	47801376,87
50	-91	27,7	5.706,200	75,54	Válido	55,54	1,166529	64,79	84,79	141819222,6	109,6932	1292871,597
50	-91	76,2	15.697,200	125,29	Válido	105,29	1,166529	122,82	142,82	2521991446	109,6932	22991319,84
50	-91	75,7	15.594,200	124,88	Válido	104,88	1,166529	122,34	142,34	2477914333	109,6932	22589498,1
50	-91	78,6	16.191,600	127,25	Válido	107,25	1,166529	125,11	145,11	2739989714	109,6932	24978665,17
50	-91	59,1	12.174,600	110,34	Válido	90,34	1,166529	105,38	125,38	1266075035	109,6932	11541964,64
50	-91	81	16.686,000	129,17	Válido	109,17	1,166529	127,35	147,35	2968738078	109,6932	27064011,97
50	-91	86,5	17.819,000	133,49	Válido	113,49	1,166529	132,39	152,39	3534286571	109,6932	32219741,71
50	-91	117,8	24.266,800	155,78	Válido	135,78	1,166529	158,39	178,39	7920689854	109,6932	72207665,14
50	-91	52,7	10.856,200	104,19	Válido	84,19	1,166529	98,21	118,21	922091493,9	109,6932	8406095,309
50	-91	57,4	11.824,400	108,74	Válido	88,74	1,166529	103,52	123,52	1168338427	109,6932	10650964,94
50	-91	34,3	7.065,800	84,06	Válido	64,06	1,166529	74,73	94,73	269537835	109,6932	2457197,302
50	-91	18,8	3.872,800	62,23	Válido	42,23	1,166529	49,26	69,26	41343696,31	109,6932	376903,0014
50	-91	45,3	9.331,800	96,60	Válido	76,60	1,166529	89,36	109,36	602686068	109,6932	5494288,324
50	-91	30,6	6.303,600	79,40	Válido	59,40	1,166529	69,29	89,29	191827791,1	109,6932	1748766,478
50	-91	86	17.716,000	133,10	Válido	113,10	1,166529	131,94	151,94	3480463096	109,6932	31729068,86
50	-91	20,2	4.161,200	64,51	Válido	44,51	1,166529	51,92	71,92	52356839,51	109,6932	477302,5083
50	-91	67	13.802,000	117,48	Válido	97,48	1,166529	113,72	133,72	1783151324	109,6932	16255805,5
100	-91	21,6	4.449,600	66,71	Válido	46,71	1,36079	63,56	83,56	130079441,7	109,6932	1185847,816
100	-91	126,4	26.038,400	161,36	Válido	141,36	1,36079	192,37	212,37	18992723880	109,6932	173144040,7
100	-91	47,6	9.805,600	99,02	Válido	79,02	1,36079	107,53	127,53	1386616866	109,6932	12640864,39
100	-91	39,6	8.157,600	90,32	Válido	70,32	1,36079	95,69	115,69	820161003,8	109,6932	7476862,775
100	-91	53,7	11.062,200	105,18	Válido	85,18	1,36079	115,91	135,91	1943168115	109,6932	17714572,23
100	-91	33	6.798,000	82,45	Válido	62,45	1,36079	84,98	104,98	480790091,8	109,6932	4383043,724
100	-91	40,1	8.260,600	90,89	Válido	70,89	1,36079	96,46	116,46	850418928,6	109,6932	7752704,166
100	-91	42,7	8.796,200	93,79	Válido	73,79	1,36079	100,41	120,41	1018585239	109,6932	9285764,653
100	-91	41,1	8.466,600	92,01	Válido	72,01	1,36079	98,00	118,00	912934682,5	109,6932	8322618,745
100	-91	23,3	4.799,800	69,28	Válido	49,28	1,36079	67,06	87,06	165615695,3	109,6932	1509808,222
100	-91	41,3	8.507,800	92,24	Válido	72,24	1,36079	98,30	118,30	925760333	109,6932	8439541,676

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,5}	r-0,3068	Kjc-20 ^{4,5} / r - 0,3068		
100	-91	45,6	9.393,600	96,92	Válido	76,92	1,36079	104,67	124,67	1228150590	109,6932	11196232,67		
100	-91	25,9	5.335,400	73,04	Válido	53,04	1,36079	72,18	92,18	230630451,4	109,6932	2102504,543		
100	-91	32	6.592,000	81,19	Válido	61,19	1,36079	83,27	103,27	438690471,6	109,6932	3999249,466		
100	-91	27,7	5.706,200	75,54	Válido	55,54	1,36079	75,58	95,58	283638445,2	109,6932	2585743,193		
100	-91	41,3	8.507,800	92,24	Válido	72,24	1,36079	98,30	118,30	925760333	109,6932	8439541,676		
100	-91	33,4	6.880,400	82,95	Válido	62,95	1,36079	85,66	105,66	498292312	109,6932	4542599,833		
100	-91	32,1	6.612,600	81,32	Válido	61,32	1,36079	83,44	103,44	442794839,1	109,6932	4036666,258		
100	-91	35,9	7.395,400	86,00	Válido	66,00	1,36079	89,81	109,81	616459290,8	109,6932	5619849,642		
100	-91	35,8	7.374,800	85,88	Válido	65,88	1,36079	89,64	109,64	611437313,8	109,6932	5574067,616		
100	-91	40,6	8.363,600	91,45	Válido	71,45	1,36079	97,23	117,23	881341941,8	109,6932	8034608,725		
100	-91	32,9	6.777,400	82,32	Válido	62,32	1,36079	84,81	104,81	476474005,6	109,6932	4343696,834		
100	-91	37,6	7.745,600	88,01	Válido	68,01	1,36079	92,55	112,55	705685739	109,6932	6433267,869		
100	-91	19,7	4.058,200	63,70	Válido	43,70	1,36079	59,47	79,47	96472930,25	109,6932	879479,5871		
100	-91	49,2	10.135,200	100,67	Válido	80,67	1,36079	109,78	129,78	1521789628	109,6932	13873144,62		
100	-91	42,3	8.713,800	93,35	Válido	73,35	1,36079	99,81	119,81	991517141,6	109,6932	9039002,796		
100	-91	29,5	6.077,000	77,96	Válido	57,96	1,36079	78,86	98,86	343536569,7	109,6932	3131794,585		
100	-91	25,4	5.232,400	72,34	Válido	52,34	1,36079	71,22	91,22	217088766,7	109,6932	1979054,004		
100	-91	19,6	4.037,600	63,54	Válido	43,54	1,36079	59,25	79,25	94875198,99	109,6932	864914,1332		
100	-91	46,6	9.599,600	97,98	Válido	77,98	1,36079	106,11	126,11	1305939593	109,6932	11905383,31		
200	-91	50,7	10.444,200	102,20	Válido	82,20	1,587401	130,48	150,48	3310844016	109,6932	30182764,44		
200	-91	33,9	6.983,400	83,57	Válido	63,57	1,587401	100,91	120,91	1041417108	109,6932	9493907,625		
200	-91	44,8	9.228,800	96,07	Válido	76,07	1,587401	120,75	140,75	2335953142	109,6932	21295332,27		
200	-91	40,9	8.425,400	91,79	Válido	71,79	1,587401	113,96	133,96	1800433848	109,6932	16413358,78		
200	-91	44,6	9.187,600	95,85	Válido	75,85	1,587401	120,41	140,41	2306433074	109,6932	21026217,43		
200	-91	25,8	5.314,800	72,90	Válido	52,90	1,587401	83,98	103,98	455763275,4	109,6932	4154890,872		
200	-91	25,4	5.232,400	72,34	Válido	52,34	1,587401	83,08	103,08	434177533,4	109,6932	3958108,008		
200	-91	25,6	5.273,600	72,62	Válido	52,62	1,587401	83,53	103,53	444889663,5	109,6932	4055763,379		
200	-91	13,8	2.842,800	53,32	Válido	33,32	1,587401	52,89	72,89	56903650,14	109,6932	518752,759		
200	-91	23	4.738,000	68,83	Válido	48,83	1,587401	77,52	97,52	317911015,8	109,6932	2898183,441		
200	-91	20,4	4.202,400	64,83	Válido	44,83	1,587401	71,16	91,16	216257646,4	109,6932	1971477,233		
200	-91	30,2	6.221,200	78,87	Válido	58,87	1,587401	93,46	113,46	737505593,3	109,6932	6723348,333		
200	-91	23,2	4.779,200	69,13	Válido	49,13	1,587401	77,99	97,99	326753588,3	109,6932	2978795,297		
200	-91	38,8	7.992,800	89,40	Válido	69,40	1,587401	110,17	130,17	1546239987	109,6932	14096042,29		
200	-91	36,9	7.601,400	87,19	Válido	67,19	1,587401	106,65	126,65	1336117821	109,6932	12180498,16		
Total de Válidos											110	Soma dos K0		1173405664
												Somatoria^{1/4,5}		103,6174569
												anterior +20		123,6174569
												Kjc Médio		114,5405676

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,5}	r-0,3068	Kjc-20 ^{4,5} / r - 0,3068
												84,54056764 1,207722395 Ln 0,188736267 T - T0 9,933189757
25	-60	261	53.766,000	231,8749663	Válido					29333130149	120,6932	243038797,1
25	-60	62,3	12.833,800	113,2863628	Válido					731445078,7	120,6932	6060366,936
25	-60	81,3	16.747,800	129,4132914	Válido					1499047427	120,6932	12420313,87
25	-60	54,2	11.165,200	105,66551	Válido					498456221,5	120,6932	4129944,533
25	-60	123,4	25.420,400	159,4377622	Válido					4463872881	120,6932	36985288,99
25	-60	191,8	39.510,800	198,7732376	Válido					13657187578	120,6932	113156230,7
25	-60	74,6	15.367,600	123,9661244	Válido					1191278618	120,6932	9870304,361
25	-60	100,3	20.661,800	143,7421302	Válido					2608129471	120,6932	21609580,91
25	-60	40,2	8.281,200	91,00109889	Válido					214137543,8	120,6932	1774230,394
25	-60	78,2	16.109,200	126,9220233	Válido					1351457080	120,6932	11197458,35
25	-60	129	26.574,000	163,0153367	Válido					5002899262	120,6932	41451376,4
25	-60	140,9	29.025,400	170,3684243	Válido					6269095991	120,6932	51942412,59
25	-60	56,1	11.556,600	107,5016279	Válido					548368623,6	120,6932	4543492,29
25	-60	67,4	13.884,400	117,8320839	Válido					906078593,8	120,6932	7507287,849
25	-60	112,2	23.113,200	152,0302601	Válido					3491649611	120,6932	28929961,35
25	-60	120,3	24.781,800	157,4223618	Válido					4180789843	120,6932	34639812,71
25	-60	90	18.540,000	136,1616686	Válido					1962378551	120,6932	16259230,44
25	-60	68	14.008,000	118,355397	Válido					928093819,9	120,6932	7689694,365
25	-60	81,4	16.768,400	129,4928569	Válido					1503959166	120,6932	12461009,95
25	-60	141,9	29.231,400	170,9719275	Válido					6383118390	120,6932	52887141,86
25	-60	34	7.004,000	83,68990381	Válido					131316007	120,6932	1088014,959
25	-60	284,9	58.689,400	242,2589524	Válido					36380334107	120,6932	301428200,7
25	-60	69	14.214,000	119,2224811	Válido					965484645,7	120,6932	7999494,965
25	-60	52	10.712,000	103,4987923	Válido					444181915,1	120,6932	3680256,345
25	-60	127,4	26.244,400	162,0012346	Válido					4845231598	120,6932	40145025,55
25	-60	193,2	39.799,200	199,4973684	Válido					13907894452	120,6932	115233455,2
25	-60	90,4	18.622,400	136,4639146	Válido					1985460388	120,6932	16450474,33
25	-60	142,5	29.355,000	171,3330091	Válido					6452106156	120,6932	53458737,99
25	-60	46,9	9.661,400	98,29242087	Válido					332459501,3	120,6932	2754583,533
25	-60	143,1	29.478,600	171,6933313	Válido					6521525540	120,6932	54033910,28
25	-60	82,3	16.953,800	130,2067587	Válido					1548592074	120,6932	12830814,61
50	-60	164,7	33.928,200	184,1960912	Válido	164,19609	1,166529	191,5395085	211,5395085	18627846874	120,6932	154340483,8
50	-60	109,7	22.598,200	150,326977	Válido	130,32698	1,166529	152,0302033	172,0302033	6586951149	120,6932	54575992,26

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,5}	r-0,3068	Kjc-20 ^{4,5} / r - 0,3068
50	-60	59,4	12.236,400	110,6182625	Válido	90,618263	1,166529	105,7088347	125,7088347	1283810090	120,6932	10636971,18
50	-60	98,6	20.311,600	142,5187707	Válido	122,51877	1,166529	142,9217039	162,9217039	4988176746	120,6932	41329393,42
50	-60	52,9	10.897,400	104,3906126	Válido	84,390613	1,166529	98,44410027	118,4441003	931866337	120,6932	7720951,446
50	-60	112,9	23.257,400	152,5037704	Válido	132,50377	1,166529	154,5694961	174,5694961	7096710019	120,6932	58799584,56
50	-60	147,8	30.446,800	174,4901143	Válido	154,49011	1,166529	180,2172047	200,2172047	14160647801	120,6932	117327635,7
50	-60	82,9	17.077,400	130,6805265	Válido	110,68053	1,166529	129,1120482	149,1120482	3157551691	120,6932	26161802,75
50	-60	198	40.788,000	201,9603922	Válido	181,96039	1,166529	212,2620815	232,2620815	29575077019	120,6932	245043440,9
50	-60	97	19.982,000	141,3577023	Válido	121,3577	1,166529	141,5672839	161,5672839	4778956190	120,6932	39595902,59
50	-60	86,1	17.736,600	133,1788271	Válido	113,17883	1,166529	132,0263885	152,0263885	3491188888	120,6932	28926144,04
50	-60	80,6	16.603,600	128,8549572	Válido	108,85496	1,166529	126,9824687	146,9824687	2929860530	120,6932	24275274,25
50	-60	96,8	19.940,800	141,2118975	Válido	121,2119	1,166529	141,3971984	161,3971984	4753172989	120,6932	39382276,62
50	-60	68,2	14.049,200	118,5293213	Válido	98,529321	1,166529	114,9373145	134,9373145	1871003955	120,6932	15502148,88
50	-60	95,1	19.590,600	139,9664245	Válido	119,96642	1,166529	139,944318	159,944318	4537312745	120,6932	37593772,85
50	-60	147,4	30.364,400	174,2538378	Válido	154,25384	1,166529	179,9415813	199,9415813	14063450763	120,6932	116522312,5
50	-60	68,1	14.028,600	118,4423911	Válido	98,442391	1,166529	114,8359079	134,8359079	1863587065	120,6932	15440696,45
50	-60	49,9	10.279,400	101,3873759	Válido	81,387376	1,166529	94,94073749	114,9407375	791656358,4	120,6932	6559245,744
50	-60	46,7	9.620,200	98,08261824	Válido	78,082618	1,166529	91,08564166	111,0856417	656938401,5	120,6932	5443044,028
50	-60	63,1	12.998,600	114,0114029	Válido	94,011403	1,166529	109,6670316	129,6670316	1514755010	120,6932	12550458,6
50	-60	142,3	29.313,800	171,2127332	Válido	151,21273	1,166529	176,3940444	196,3940444	12858124623	120,6932	106535617,8
50	-60	69,2	14.255,200	119,3951423	Válido	99,395142	1,166529	115,9473199	135,9473199	1946136126	120,6932	16124654,29
50	-60	129,9	26.759,400	163,5830065	Válido	143,58301	1,166529	167,4937466	187,4937466	10185765835	120,6932	84393866,72
50	-60	75,1	15.470,600	124,3808667	Válido	104,38087	1,166529	121,7633122	141,7633122	2425627118	120,6932	20097462,97
50	-60	76,5	15.759,000	125,5348557	Válido	105,53486	1,166529	123,1094739	143,1094739	2548658451	120,6932	21116835,5
50	-60	48	9.888,000	99,43842316	Válido	79,438423	1,166529	92,66722747	112,6672275	709851922,1	120,6932	5881457,465
50	-60	81,9	16.871,400	129,8899534	Válido	109,88995	1,166529	128,1898218	148,1898218	3057320353	120,6932	25331338,91
50	-60	163,2	33.619,200	183,3553926	Válido	163,35539	1,166529	190,5588093	210,5588093	18202483106	120,6932	150816144,6
50	-60	127,4	26.244,400	162,0012346	Válido	142,00123	1,166529	165,6485638	185,6485638	9690463195	120,6932	80290051,1
50	-60	76,2	15.697,200	125,2884671	Válido	105,28847	1,166529	122,8220545	142,8220545	2521991446	120,6932	20895886,81
50	-60	129,1	26.594,600	163,0785087	Válido	143,07851	1,166529	166,9052353	186,9052353	10025702598	120,6932	83067667,43
50	-60	176,8	36.420,800	190,8423433	Válido	170,84234	1,166529	199,2925547	219,2925547	22269467589	120,6932	184513026,3
50	-60	86,2	17.757,200	133,2561443	Válido	113,25614	1,166529	132,1165813	152,1165813	3501934121	120,6932	29015173,36
50	-60	94,4	19.446,400	139,4503496	Válido	119,45035	1,166529	139,3423016	159,3423016	4450137281	120,6932	36871483,08
100	-60	415,3	85.551,800	292,4923931	Válido	272,49239	1,36079	370,8049236	390,8049236	3,64045E+11	120,6932	3016281792
100	-60	225,7	46.494,200	215,6251377	Válido	195,62514	1,36079	266,2047311	286,2047311	81935284078	120,6932	678872414,3
100	-60	230	47.380,000	217,6694742	Válido	197,66947	1,36079	268,9866438	288,9866438	85859473908	120,6932	711386175,1
100	-60	131,1	27.006,600	164,3368492	Válido	144,33685	1,36079	196,412141	216,412141	20857271000	120,6932	172812312,5
100	-60	57,5	11.845,000	108,8347371	Válido	88,834737	1,36079	120,8854219	140,8854219	2347916716	120,6932	19453595,69
100	-60	82,8	17.056,800	130,6016845	Válido	110,60168	1,36079	150,5056663	170,5056663	6294885404	120,6932	52156090,02

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,5}	r-0,3068	Kjc-20 ^{4,5} / r - 0,3068
100	-60	88,3	18.189,800	134,8695666	Válido	114,86957	1,36079	156,3133576	176,3133576	7464185309	120,6932	61844290,39
100	-60	113	23.278,000	152,5712948	Válido	132,57129	1,36079	180,4016923	200,4016923	14225997642	120,6932	117869089,9
100	-60	64	13.184,000	114,8216008	Válido	94,821601	1,36079	129,0322861	149,0322861	3148783228	120,6932	26089151,9
100	-60	107,7	22.186,200	148,9503273	Válido	128,95033	1,36079	175,4743159	195,4743159	12559172074	120,6932	104058655,1
100	-60	112,3	23.133,800	152,0979947	Válido	132,09799	1,36079	179,7576303	199,7576303	13998870751	120,6932	115987236,7
100	-60	160,8	33.124,800	182,0021978	Válido	162,0022	1,36079	220,4509708	240,4509708	35067440609	120,6932	290550259,7
100	-60	265,4	54.672,400	233,8212993	Válido	213,8213	1,36079	290,9658859	310,9658859	1,22261E+11	120,6932	1012993196
100	-60	106,3	21.897,800	147,9790526	Válido	127,97905	1,36079	174,152615	194,152615	12139058372	120,6932	100577815,3
100	-60	153,5	31.621,000	177,8229457	Válido	157,82295	1,36079	214,7638862	234,7638862	31176376923	120,6932	258310964,7
100	-60	150,2	30.941,200	175,9011086	Válido	155,90111	1,36079	212,1486696	232,1486696	29504034454	120,6932	244454819,8
100	-60	168,9	34.793,400	186,5298904	Válido	166,52989	1,36079	226,6122095	246,6122095	39698570989	120,6932	328921355,9
100	-60	86,1	17.736,600	133,1788271	Válido	113,17883	1,36079	154,0126162	174,0126162	6982377776	120,6932	57852288,08
100	-60	282,6	58.215,600	241,2790915	Válido	221,27909	1,36079	301,114375	321,114375	1,42657E+11	120,6932	1181976652
100	-60	115,5	23.793,000	154,2497974	Válido	134,2498	1,36079	182,6857818	202,6857818	15054674389	120,6932	124735067
100	-60	128,1	26.388,600	162,4456832	Válido	142,44568	1,36079	193,8386613	213,8386613	19655396457	120,6932	162854216
100	-60	102,2	21.053,200	145,0972088	Válido	125,09721	1,36079	170,2310308	190,2310308	10956561479	120,6932	90780271,62
100	-60	68,5	14.111,000	118,7897302	Válido	98,78973	1,36079	134,432077	154,432077	3786719084	120,6932	31374750,89
100	-60	30,4	6.262,400	79,13532713	Válido	59,135327	1,36079	80,47076182	100,4707618	376159043,7	120,6932	3116654,821
100	-60	94,5	19.467,000	139,5241915	Válido	119,52419	1,36079	162,6473245	182,6473245	8925060249	120,6932	73948327,24
100	-60	63,3	13.039,800	114,1919437	Válido	94,191944	1,36079	128,175455	148,175455	3055778745	120,6932	25318565,96
100	-60	89,4	18.416,400	135,7070374	Válido	115,70704	1,36079	157,4529794	177,4529794	7712212260	120,6932	63899310,48
100	-60	132,7	27.336,200	165,3366263	Válido	145,33663	1,36079	197,7726277	217,7726277	21515320883	120,6932	178264565,7
100	-60	241,9	49.831,400	223,2294783	Válido	203,22948	1,36079	276,5526419	296,5526419	97274756443	120,6932	805967166,7
100	-60	191,9	39.531,400	198,8250487	Válido	178,82505	1,36079	243,3433381	263,3433381	54700031388	120,6932	453215519,9
25	-60	128,7	26.512,200	162,8256737	Válido					4973112286	120,6932	41204577,27
25	-60	176	36.256,000	190,4100838	Válido					11008516677	120,6932	91210744,91
25	-60	131,7	27.130,200	164,7124768	Válido					5275661162	120,6932	43711337,19
25	-60	150,4	30.982,400	176,0181809	Válido					7400966602	120,6932	61320493,63
25	-60	133,7	27.542,200	165,9584285	Válido					5483164873	120,6932	45430603,16
25	-60	78,7	16.212,200	127,3271377	Válido					1374652618	120,6932	11389644,3
25	-60	678,2	139.709,200	373,7769388	Censurado					0	120,6932	2,184139821
25	-60	46,1	9.496,600	97,45050026	Válido					316671531,6	120,6932	2623772,769
25	-60	369,1	76.034,600	275,7437216	Censurado					0	120,6932	2,184139821
25	-60	275,9	56.835,400	238,4017617	Válido					33624250909	120,6932	278592753,4
25	-60	687,7	141.666,200	376,3857064	Censurado					0	120,6932	2,184139821
25	-60	140,7	28.984,200	170,2474669	Válido					6246434853	120,6932	51754654,39
25	-60	89,1	18.354,600	135,4791497	Válido					1911023810	120,6932	15833732,22
25	-60	87,8	18.086,800	134,4871741	Válido					1838255022	120,6932	15230808,55

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,5}	r-0,3068	Kjc-20 ^{4,5} / r - 0,3068	
25	-60	219,5	45.217,000	212,6428931	Válido					19115623302	120,6932	158381941,2	
25	-60	427,1	87.982,600	296,6186103	Censurado					0	120,6932	2,184139821	
25	-60	197,6	40.705,600	201,7562886	Válido					14713043100	120,6932	121904490,9	
25	-60	64,1	13.204,600	114,9112701	Válido					790551257	120,6932	6550089,458	
25	-60	234,5	48.307,000	219,7885347	Válido					22519955492	120,6932	186588436,6	
25	-60	133,7	27.542,200	165,9584285	Válido					5483164873	120,6932	45430603,16	
25	-60	38,4	7.910,400	88,9404295	Válido					187556850,5	120,6932	1553996,833	
25	-60	116,3	23.957,800	154,783074	Válido					3831414223	120,6932	31745071,17	
25	-60	166,1	34.216,600	184,9772959	Válido					9515000472	120,6932	78836259,81	
25	-60	217,1	44.722,600	211,4771855	Válido					18600587378	120,6932	154114626	
25	-60	129	26.574,000	163,0153367	Válido					5002899262	120,6932	41451376,4	
25	-60	373,6	76.961,600	277,4195379	Censurado					0	120,6932	2,184139821	
25	-60	164,6	33.907,600	184,140164	Válido					9299655991	120,6932	77052029,37	
25	-60	77,7	16.006,200	126,5156117	Válido					1328494301	120,6932	11007200,91	
25	-60	200,2	41.241,200	203,0792949	Válido					15201153332	120,6932	125948714	
25	-60	63,6	13.101,600	114,4622208	Válido					773858724,2	120,6932	6411783,963	
25	-60	55	11.330,000	106,4424727	Válido					519125445,8	120,6932	4301198,79	
					T. Válidos	121						Soma dos KO	15525838626
					T. Censurados	5						Somatoria ^{1/4,5}	183,9411528
										anterior + 20	203,9411528		
										Kjc Médio	187,8279078		
											157,8279078		
											2,254684397		
										LN	0,813010006		
										T - T0	42,78871663		
25	-40	155,4	32.012,400	178,9200939	Válido					8040899951	76,6932	104845018,2	
25	-40	203,4	41.900,400	204,695872	Válido					15814568618	76,6932	206205616,9	
25	-40	275,9	56.835,400	238,4017617	Válido					33624250909	76,6932	438425452,4	
25	-40	349,2	71.935,200	268,2073824	Censurado					0	76,6932	3,430412845	
25	-40	165,5	34.093,000	184,6428986	Válido					9428519752	76,6932	122938145,1	
25	-40	311,7	64.210,200	253,3973165	Válido					45334764359	76,6932	591118435	
25	-40	254,5	52.427,000	228,9694303	Válido					27565915087	76,6932	359431019,8	
25	-40	548,6	113.011,600	336,1719798	Censurado					0	76,6932	3,430412845	
25	-40	773,9	159.423,400	399,2785995	Censurado					0	76,6932	3,430412845	
25	-40	758,7	156.292,200	395,3380832	Censurado					0	76,6932	3,430412845	
25	-40	139,3	28.695,800	169,3983471	Válido					6089141505	76,6932	79396106,89	
25	-40	1544,1	318.084,600	563,9898935	Censurado					0	76,6932	3,430412845	
25	-40	136,6	28.139,600	167,7486215	Válido					5792358970	76,6932	75526369,61	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,5}	r-0,3068	Kjc-20 ^{4,5} / r - 0,3068
25	-40	1433,6	295.321,600	543,4350007	Censurado					0	76,6932	3,430412845
25	-40	1337,1	275.442,600	524,826257	Censurado					0	76,6932	3,430412845
25	-40	483,2	99.539,200	315,498336	Censurado					0	76,6932	3,430412845
25	-40	1573,3	324.099,800	569,2976374	Censurado					0	76,6932	3,430412845
25	-40	619,9	127.699,400	357,3505282	Censurado					0	76,6932	3,430412845
25	-40	562,8	115.936,800	340,4949339	Censurado					0	76,6932	3,430412845
25	-40	264,8	54.548,800	233,5568453	Válido					30395601052	76,6932	396327197,9
25	-40	1337,2	275.463,200	524,8458821	Censurado					0	76,6932	3,430412845
25	-40	1174	241.844,000	491,7763719	Censurado					0	76,6932	3,430412845
25	-40	1714,3	353.145,800	594,2607172	Censurado					0	76,6932	3,430412845
25	-40	61,6	12.689,600	112,6481247	Válido					709193667,9	76,6932	9247151,871
25	-40	251	51.706,000	227,3895336	Válido					26640400977	76,6932	347363273,1
25	-40	113,2	23.319,200	152,706254	Válido					3572820975	76,6932	46585889,95
25	-40	233,2	48.039,200	219,1784661	Válido					22212156548	76,6932	289623546,1
25	-40	1127,9	232.347,400	482,0242732	Censurado					0	76,6932	3,430412845
25	-40	283	58.298,000	241,4497877	Válido					35788105388	76,6932	466639876,7
25	-40	195,2	40.211,200	200,5273049	Válido					14270626624	76,6932	186074210,3
50	-40	187	38.522,000	196,2702219	Válido	176,27022	1,166529	205,6243326	225,6243326	25635115355	76,6932	334255388,4
50	-40	107,5	22.145,000	148,8119619	Válido	128,81196	1,166529	150,2628942	170,2628942	6249321568	76,6932	81484689,23
50	-40	245	50.470,000	224,6552915	Válido	204,65529	1,166529	238,7363406	258,7363406	50191872385	76,6932	654450099,7
50	-40	119	24.514,000	156,5694734	Válido	136,56947	1,166529	159,3122566	179,3122566	8130576722	76,6932	106014310,6
50	-40	313,1	64.498,600	253,9657457	Válido	233,96575	1,166529	272,9278367	292,9278367	91667470530	76,6932	1195248999
50	-40	205,3	42.291,800	205,6497022	Válido	185,6497	1,166529	216,5657688	236,5657688	32370853581	76,6932	422082447,7
50	-40	217,1	44.722,600	211,4771855	Válido	191,47719	1,166529	223,3636973	243,3636973	37201174755	76,6932	485064839,6
50	-40	308,7	63.592,200	252,1749393	Válido	232,17494	1,166529	270,8388089	290,8388089	88552133369	76,6932	1154628225
50	-40	274,2	56.485,200	237,6661524	Válido	217,66615	1,166529	253,9138877	273,9138877	66235229869	76,6932	863638886,7
50	-40	455,2	93.771,200	306,2208353	Válido	286,22084	1,166529	333,8849162	353,8849162	2,27084E+11	76,6932	2960934080
50	-40	167	34.402,000	185,4777615	Válido	165,47776	1,166529	193,0346142	213,0346142	19291160902	76,6932	251536784,3
50	-40	49,1	10.114,600	100,5713677	Válido	80,571368	1,166529	93,98884017	113,9888402	756559879,6	76,6932	9864758,278
50	-40	93,8	19.322,800	139,0064747	Válido	119,00647	1,166529	138,8245086	158,8245086	4376204938	76,6932	57061185,85
50	-40	107,4	22.124,400	148,7427309	Válido	128,74273	1,166529	150,1821342	170,1821342	6234221423	76,6932	81287798,95
50	-40	167	34.402,000	185,4777615	Válido	165,47776	1,166529	193,0346142	213,0346142	19291160902	76,6932	251536784,3
50	-40	212,8	43.836,800	209,3723955	Válido	189,3724	1,166529	220,9083987	240,9083987	35396068244	76,6932	461528117,8
50	-40	122,7	25.276,200	158,9849049	Válido	138,9849	1,166529	162,1299277	182,1299277	8798007957	76,6932	114716923,5
50	-40	219,3	45.175,800	212,545995	Válido	192,546	1,166529	224,6104946	244,6104946	38144787446	76,6932	497368573
50	-40	168,9	34.793,400	186,5298904	Válido	166,52989	1,166529	194,2619531	214,2619531	19849285494	76,6932	258814151,6
50	-40	272,7	56.176,200	237,0151894	Válido	217,01519	1,166529	253,1545204	273,1545204	65348495055	76,6932	852076782
50	-40	60,6	12.483,600	111,7300318	Válido	91,730032	1,166529	107,0057459	127,0057459	1356225617	76,6932	17683779,23

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,5}	r-0,3068	Kjc-20 ^{4,5} / r - 0,3068
50	-40	271,9	56.011,400	236,667277	Válido	216,66728	1,166529	252,7486705	272,7486705	64878374376	76,6932	845946894,6
50	-40	386,6	79.639,600	282,2048901	Válido	262,20489	1,166529	305,8696186	325,8696186	1,53078E+11	76,6932	1995982265
50	-40	308,8	63.612,800	252,2157806	Válido	232,21578	1,166529	270,8864516	290,8864516	88622251450	76,6932	1155542492
50	-40	349,4	71.976,400	268,2841777	Válido	248,28418	1,166529	289,6307033	309,6307033	1,19757E+11	76,6932	1561506643
50	-40	166,5	34.299,000	185,199892	Válido	165,19989	1,166529	192,7104714	212,7104714	19145817354	76,6932	249641654,7
50	-40	137,8	28.386,800	168,4838271	Válido	148,48383	1,166529	173,2106962	193,2106962	11846394286	76,6932	154464728,1
50	-40	313,1	64.498,600	253,9657457	Válido	233,96575	1,166529	272,9278367	292,9278367	91667470530	76,6932	1195248999
50	-40	139,9	28.819,400	169,7627757	Válido	149,76278	1,166529	174,7026269	194,7026269	12312534437	76,6932	160542713,5
50	-40	50,6	10.423,600	102,0960332	Válido	82,096033	1,166529	95,76740679	115,7674068	823151501	76,6932	10733044,14
50	-40	251,8	51.870,800	227,7516191	Válido	207,75162	1,166529	242,3482967	262,3482967	53700690823	76,6932	700201462,7
50	-40	210	43.260,000	207,9903844	Válido	187,99038	1,166529	219,2962426	239,2962426	34248405527	76,6932	446563783,1
100	-40	75,5	15.553,000	124,7116675	Válido	104,71167	1,36079	142,49059	162,49059	4920823986	76,6932	64162454,9
100	-40	79,1	16.294,600	127,6503036	Válido	107,6503	1,36079	146,4894566	166,4894566	5573508350	76,6932	72672783,89
100	-40	187,7	38.666,200	196,6372294	Válido	176,63723	1,36079	240,3661755	260,3661755	51752351767	76,6932	674797136,7
100	-40	214,1	44.104,600	210,0109521	Válido	190,01095	1,36079	258,5650035	278,5650035	71872680921	76,6932	937145417,3
100	-40	91,5	18.849,000	137,2916603	Válido	117,29166	1,36079	159,6093185	179,6093185	8199022810	76,6932	106906776,7
100	-40	167,8	34.566,800	185,9214888	Válido	165,92149	1,36079	225,7843028	245,7843028	39050073279	76,6932	509172563,9
100	-40	142,5	29.355,000	171,3330091	Válido	151,33301	1,36079	205,9324455	225,9324455	25808424623	76,6932	336515162
100	-40	153,4	31.600,400	177,7650134	Válido	157,76501	1,36079	214,6850527	234,6850527	31124912251	76,6932	405836661,5
100	-40	110,9	22.845,400	151,1469484	Válido	131,14695	1,36079	178,4634559	198,4634559	13551015567	76,6932	176691226,4
100	-40	112,4	23.154,400	152,1656992	Válido	132,1657	1,36079	179,8497618	199,8497618	14031186625	76,6932	182952160,4
100	-40	99,6	20.517,600	143,2396593	Válido	123,23966	1,36079	167,703296	187,703296	10243236315	76,6932	133561206,4
100	-40	108,2	22.289,200	149,2956798	Válido	129,29568	1,36079	175,9442681	195,9442681	12711243946	76,6932	165741473,1
100	-40	92,1	18.972,600	137,7410614	Válido	117,74106	1,36079	160,220859	180,220859	8341338602	76,6932	108762427,5
100	-40	160,5	33.063,000	181,8323404	Válido	161,83234	1,36079	220,2198305	240,2198305	34902288803	76,6932	455089744,6
100	-40	96	19.776,000	140,6271666	Válido	120,62717	1,36079	164,1482421	184,1482421	9301715731	76,6932	121284751,9
100	-40	166,8	34.360,800	185,3666637	Válido	165,36666	1,36079	225,0293023	245,0293023	38465894075	76,6932	501555471,3
100	-40	141,2	29.087,200	170,5496995	Válido	150,5497	1,36079	204,8665256	224,8665256	25212708912	76,6932	328747645,3
100	-40	186,7	38.460,200	196,1127227	Válido	176,11272	1,36079	239,6524319	259,6524319	51064405731	76,6932	665827032
100	-40	81	16.686,000	129,1743008	Válido	109,1743	1,36079	148,5632969	168,5632969	5937476156	76,6932	77418547,62
100	-40	95,6	19.693,600	140,3338876	Válido	120,33389	1,36079	163,7491509	183,7491509	9200379782	76,6932	119963435,9
100	-40	86,1	17.736,600	133,1788271	Válido	113,17883	1,36079	154,0126162	174,0126162	6982377776	76,6932	91042983,94
100	-40	63,5	13.081,000	114,3721994	Válido	94,372199	1,36079	128,4207453	148,4207453	3082182403	76,6932	40188470,47
100	-40	40	8.240,000	90,77444574	Válido	70,774446	1,36079	96,30915804	116,309158	844314285,9	76,6932	11008984,97
100	-40	94,8	19.528,800	139,7454829	Válido	119,74548	1,36079	162,9484557	182,9484557	8999660376	76,6932	117346262,5
100	-40	272,3	56.093,800	236,8412971	Válido	216,8413	1,36079	295,0754687	315,0754687	1,30226E+11	76,6932	1698017322
100	-40	282,2	58.133,200	241,1082744	Válido	221,10827	1,36079	300,8819288	320,8819288	1,42162E+11	76,6932	1853640933
100	-40	175,4	36.132,400	190,085244	Válido	170,08524	1,36079	231,4502993	251,4502993	43657600250	76,6932	569249949,8

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,5}	r-0,3068	Kjc-20 ^{4,5} / r - 0,3068	
100	-40	102,6	21.135,600	145,3808791	Válido	125,38088	1,36079	170,6170465	190,6170465	11068808870	76,6932	144325818,6	
100	-40	124	25.544,000	159,8249042	Válido	139,8249	1,36079	190,2723314	210,2723314	18079664963	76,6932	235740130,3	
100	-40	96,4	19.858,400	140,9198354	Válido	120,91984	1,36079	164,5465028	184,5465028	9403704073	76,6932	122614574,3	
					Válidos	77						Somatoria	34335379156
					Censurados	15						Somatoria ^{1/4,5}	219,4198764
										K0	239,4198764		
										Kjc Médio	220,1986952		
											190,1986952		
											2,717124218		
										Ln	0,999574048		
										T-T0	52,60758215		
25	-20	258,8	53.312,800	230,8956474	Válido					28727926095	62,6932	458230335,9	
25	-20	723,7	149.082,200	386,1116419	Censurado					0	62,6932	4,073937366	
25	-20	1133,7	233.542,200	483,2620407	Censurado					0	62,6932	4,073937366	
25	-20	914,9	188.469,400	434,1306255	Censurado					0	62,6932	4,073937366	
25	-20	1554,5	320.227,000	565,8860309	Censurado					0	62,6932	4,073937366	
25	-20	1497,2	308.423,200	555,3586229	Censurado					0	62,6932	4,073937366	
25	-20	1499	308.794,000	555,6923609	Censurado					0	62,6932	4,073937366	
25	-20	1575	324.450,000	569,6051264	Censurado					0	62,6932	4,073937366	
25	-20	1480,1	304.900,600	552,178051	Censurado					0	62,6932	4,073937366	
25	-20	1560,5	321.463,000	566,9770718	Censurado					0	62,6932	4,073937366	
25	-20	78,9	16.253,400	127,488823	Válido					1383996156	62,6932	22075698,1	
25	-20	102,7	21.156,200	145,4517102	Válido					2774243886	62,6932	44251113,14	
25	-20	772,5	159.135,000	398,9172847	Censurado					0	62,6932	4,073937366	
25	-20	798,3	164.449,800	405,5241053	Censurado					0	62,6932	4,073937366	
25	-20	1340	276.040,000	525,3950894	Censurado					0	62,6932	4,073937366	
25	-20	1348,6	277.811,600	527,0783623	Censurado					0	62,6932	4,073937366	
25	-20	1361,1	280.386,600	529,5154389	Censurado					0	62,6932	4,073937366	
25	-20	1368,5	281.911,000	530,9529169	Censurado					0	62,6932	4,073937366	
25	-20	1368,6	281.931,600	530,9723157	Censurado					0	62,6932	4,073937366	
25	-20	1371,1	282.446,600	531,4570538	Censurado					0	62,6932	4,073937366	
25	-20	1381,3	284.547,800	533,4302204	Censurado					0	62,6932	4,073937366	
25	-20	1391	286.546,000	535,2999159	Censurado					0	62,6932	4,073937366	
25	-20	1408,2	290.089,200	538,5992945	Censurado					0	62,6932	4,073937366	
25	-20	1436,3	295.877,800	543,9465047	Censurado					0	62,6932	4,073937366	
25	-20	1459,7	300.698,200	548,3595536	Censurado					0	62,6932	4,073937366	
25	-20	1472,5	303.335,000	550,7585678	Censurado					0	62,6932	4,073937366	
25	-20	1473,7	303.582,200	550,9829398	Censurado					0	62,6932	4,073937366	
25	-20	1496,6	308.299,600	555,2473323	Censurado					0	62,6932	4,073937366	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,5}	r-0,3068	Kjc-20 ^{4,5} / r - 0,3068
25	-20	1524,5	314.047,000	560,398965	Censurado					0	62,6932	4,073937366
25	-20	1547,8	318.846,800	564,6652105	Censurado					0	62,6932	4,073937366
25	-20	1553,3	319.979,800	565,6675702	Censurado					0	62,6932	4,073937366
50	-20	195,2	40.211,200	200,5273049	Válido	180,5273	1,166529	210,5903436	230,5903436	28541253247	62,6932	455252774,6
50	-20	180,6	37.203,600	192,8823476	Válido	172,88235	1,166529	201,6722789	221,6722789	23491347319	62,6932	374703274,3
50	-20	328,8	67.732,800	260,2552593	Válido	240,25526	1,166529	280,2647369	300,2647369	1,0329E+11	62,6932	1647546281
50	-20	168,1	34.628,600	186,0876138	Válido	166,08761	1,166529	193,7460246	213,7460246	19613161321	62,6932	312843519,2
50	-20	362,3	74.633,800	273,191874	Válido	253,19187	1,166529	295,3556736	315,3556736	1,30784E+11	62,6932	2086092166
50	-20	326,5	67.259,000	259,3434017	Válido	239,3434	1,166529	279,2010285	299,2010285	1,01538E+11	62,6932	1619593870
50	-20	655,6	135.053,600	367,4963945	Censurado	347,49639	1,166529	405,3646354	425,3646354	0	62,6932	5,761417506
50	-20	648,8	133.652,800	365,5855577	Censurado	345,58556	1,166529	403,1355887	423,1355887	0	62,6932	5,761417506
50	-20	1017	209.502,000	457,7138844	Censurado	437,71388	1,166529	510,6059572	530,6059572	0	62,6932	5,761417506
50	-20	486,8	100.280,800	316,6714386	Censurado	296,67144	1,166529	346,0758483	366,0758483	0	62,6932	5,761417506
50	-20	1619	333.514,000	577,5067099	Censurado	557,50671	1,166529	650,3477669	670,3477669	0	62,6932	5,761417506
50	-20	256	52.736,000	229,6432015	Válido	209,6432	1,166529	244,5548825	264,5548825	55936272262	62,6932	892222318,6
50	-20	695	143.170,000	378,3781178	Censurado	358,37812	1,166529	418,0584815	438,0584815	0	62,6932	5,761417506
50	-20	417	85.902,000	293,0904297	Válido	273,09043	1,166529	318,5679167	338,5679167	1,83827E+11	62,6932	2932167135
50	-20	1582	325.892,000	570,8695122	Censurado	550,86951	1,166529	642,605283	662,605283	0	62,6932	5,761417506
50	-20	807	166.242,000	407,7278504	Censurado	387,72785	1,166529	452,295797	472,295797	0	62,6932	5,761417506
50	-20	447	92.082,000	303,4501607	Válido	283,45016	1,166529	330,6528437	350,6528437	2,17358E+11	62,6932	3467007184
50	-20	502	103.412,000	321,5773624	Censurado	301,57736	1,166529	351,7987509	371,7987509	0	62,6932	5,761417506
50	-20	380	78.280,000	279,7856322	Válido	259,78563	1,166529	303,0474841	323,0474841	1,46824E+11	62,6932	2341950086
50	-20	291	59.946,000	244,8387224	Válido	224,83872	1,166529	262,2808989	282,2808989	76639027586	62,6932	1222445617
50	-20	259	53.354,000	230,984848	Válido	210,98485	1,166529	246,1199521	266,1199521	57565290206	62,6932	918206284
50	-20	480	98.880,000	314,4519041	Censurado	294,4519	1,166529	343,4866969	363,4866969	0	62,6932	5,761417506
50	-20	1266	260.796,000	510,6818971	Censurado	490,6819	1,166529	572,3946821	592,3946821	0	62,6932	5,761417506
50	-20	330	67.980,000	260,7297451	Válido	240,72975	1,166529	280,8182384	300,8182384	1,04211E+11	62,6932	1662238971
50	-20	162	33.372,000	182,6800482	Válido	162,68005	1,166529	189,7710004	209,7710004	17866287208	62,6932	284979666,2
50	-20	392	80.752,000	284,1689638	Válido	264,16896	1,166529	308,1607677	328,1607677	1,58306E+11	62,6932	2525094437
50	-20	555	114.330,000	338,127195	Censurado	318,1272	1,166529	371,1046112	391,1046112	0	62,6932	5,761417506
50	-20	820	168.920,000	410,9987835	Censurado	390,99878	1,166529	456,1114353	476,1114353	0	62,6932	5,761417506
50	-20	512	105.472,000	324,7645301	Censurado	304,76453	1,166529	355,5166746	375,5166746	0	62,6932	5,761417506
50	-20	139	28.634,000	169,2158385	Válido	149,21584	1,166529	174,0646088	194,0646088	12111478218	62,6932	193186473,5
100	-20	193	39.758,000	199,3940822	Válido	179,39408	1,414214	253,701544	273,701544	65986333298	62,6932	1052527759
100	-20	58,6	12.071,600	109,8708333	Válido	89,870833	1,414214	127,0965513	147,0965513	2941724163	62,6932	46922539,66
100	-20	186,1	38.336,600	195,7973442	Válido	175,79734	1,414214	248,6149884	268,6149884	60238324628	62,6932	960843036
100	-20	188,4	38.810,400	197,0035533	Válido	177,00355	1,414214	250,3208256	270,3208256	62120711528	62,6932	990868412

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,5}	r-0,3068	Kjc-20 ^{4,5} / r - 0,3068
100	-20	191,7	39.490,200	198,721413	Válido	178,72141	1,414214	252,7502462	272,7502462	64880194464	62,6932	1034884078
100	-20	130,8	26.944,800	164,1487131	Válido	144,14871	1,414214	203,857065	223,857065	24658460150	62,6932	393319533,1
100	-20	373,5	76.941,000	277,3824075	Válido	257,38241	1,414214	363,9936914	383,9936914	3,34906E+11	62,6932	5341975815
100	-20	371,9	76.611,400	276,7876442	Válido	256,78764	1,414214	363,1525691	383,1525691	3,31437E+11	62,6932	5286650576
100	-20	315,9	65.075,400	255,0988044	Válido	235,0988	1,414214	332,4799177	352,4799177	2,22815E+11	62,6932	3554053366
100	-20	334,9	68.989,400	262,6583332	Válido	242,65833	1,414214	343,1707058	363,1707058	2,56919E+11	62,6932	4098033442
100	-20	133,4	27.480,400	165,7721328	Válido	145,77213	1,414214	206,1529272	226,1529272	25933000940	62,6932	413649342,2
100	-20	112,2	23.113,200	152,0302601	Válido	132,03026	1,414214	186,7189845	206,7189845	16609178240	62,6932	264927906,7
100	-20	212,5	43.775,000	209,2247595	Válido	189,22476	1,414214	267,6042213	287,6042213	83891569441	62,6932	1338128688
100	-20	231,2	47.627,200	218,2365689	Válido	198,23657	1,414214	280,3488443	300,3488443	1,0343E+11	62,6932	1649772377
100	-20	247,3	50.943,800	225,7073326	Válido	205,70733	1,414214	290,9140997	310,9140997	1,22164E+11	62,6932	1948592515
100	-20	212,3	43.733,800	209,1262776	Válido	189,12628	1,414214	267,4649468	287,4649468	83695272433	62,6932	1334997614
100	-20	224,4	46.226,400	215,0032558	Válido	195,00326	1,414214	275,776249	295,776249	96051880352	62,6932	1532094076
100	-20	100,6	20.723,600	143,956938	Válido	123,95694	1,414214	175,3015829	195,3015829	12503634468	62,6932	199441637,5
100	-20	123,7	25.482,200	159,6314505	Válido	139,63145	1,414214	197,4686911	217,4686911	21366929329	62,6932	340817334,7
100	-20	82,8	17.056,800	130,6016845	Válido	110,60168	1,414214	156,4144023	176,4144023	7485922510	62,6932	119405653,4
100	-20	223	45.938,000	214,3315189	Válido	194,33152	1,414214	274,8262696	294,8262696	94571895467	62,6932	1508487292
100	-20	74,4	15.326,400	123,7998384	Válido	103,79984	1,414214	146,7951393	166,7951393	5626036422	62,6932	89739181
100	-20	683,1	140.718,600	375,1247792	Censurado	355,12478	1,414214	502,2222791	522,2222791	0	62,6932	8,14787473
100	-20	288,5	59.431,000	243,7847411	Válido	223,78474	1,414214	316,4794159	336,4794159	1,78466E+11	62,6932	2846650635
100	-20	299,8	61.758,800	248,5131787	Válido	228,51318	1,414214	323,1664365	343,1664365	1,96073E+11	62,6932	3127502638
100	-20	301,3	62.067,800	249,1341004	Válido	229,1341	1,414214	324,0445524	344,0445524	1,98482E+11	62,6932	3165926471
100	-20	384,1	79.124,600	281,2909526	Válido	261,29095	1,414214	369,5212089	389,5212089	3,58408E+11	62,6932	5716849078
100	-20	324,6	66.867,600	258,5877027	Válido	238,5877	1,414214	337,413965	357,413965	2,38086E+11	62,6932	3797635709
100	-20	588,7	121.272,200	348,2415828	Válido	328,24158	1,414214	464,2036981	484,2036981	1,00043E+12	62,6932	15957624604
100	-20	318,2	65.549,200	256,02578	Válido	236,02578	1,414214	333,7908591	353,7908591	2,26796E+11	62,6932	3617549971
200	-20	117	24.102,000	155,2481884	Válido	135,24819	1,587401	214,6931165	234,6931165	31130173533	62,6932	496547847,8
200	-20	234	48.204,000	219,5540936	Válido	199,55409	1,587401	316,772378	336,772378	1,7921E+11	62,6932	2858527893
200	-20	179	36.874,000	192,0260399	Válido	172,02604	1,587401	273,0743167	293,0743167	91889068772	62,6932	1465694346
200	-20	175	36.050,000	189,8683755	Válido	169,86838	1,587401	269,6492379	289,6492379	86815323399	62,6932	1384764590
200	-20	162	33.372,000	182,6800482	Válido	162,68005	1,587401	258,2384796	278,2384796	71465148830	62,6932	1139918665
200	-20	166	34.196,000	184,921605	Válido	164,92161	1,587401	261,7967293	281,7967293	76004441857	62,6932	1212323535
200	-20	162	33.372,000	182,6800482	Válido	162,68005	1,587401	258,2384796	278,2384796	71465148830	62,6932	1139918665
200	-20	179	36.874,000	192,0260399	Válido	172,02604	1,587401	273,0743167	293,0743167	91889068772	62,6932	1465694346
200	-20	199	40.994,000	202,4697508	Válido	182,46975	1,587401	289,6526744	309,6526744	1,19798E+11	62,6932	1910858395
200	-20	239	49.234,000	221,8873588	Válido	201,88736	1,587401	320,4762058	340,4762058	1,88834E+11	62,6932	3012039189
200	-20	112	23.072,000	151,8947004	Válido	131,8947	1,587401	209,3697861	229,3697861	27804368917	62,6932	443498958,7
200	-20	236	48.616,000	220,4903626	Válido	200,49036	1,587401	318,2586125	338,2586125	1,83025E+11	62,6932	2919377826

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{4,5}	r-0,3068	Kjc-20 ^{4,5} / r - 0,3068	
200	-20	125	25.750,000	160,4680654	Válido	140,46807	1,587401	222,9791547	242,9791547	36913837113	62,6932	588801291,3	
200	-20	168	34.608,000	186,0322553	Válido	166,03226	1,587401	263,5597767	283,5597767	78335043503	62,6932	1249498247	
200	-20	187	38.522,000	196,2702219	Válido	176,27022	1,587401	279,8115357	299,8115357	1,0254E+11	62,6932	1635591442	
					Válidos	63						Somatoria	1,18113E+11
					Censurados	43						Somatoria ^{1/4,5}	288,7424329
										K0	308,7424329		
										Kjc Médio	283,4485958		
											253,4485958		
											3,620694226		
										Ln	1,286665782		
										T-T0	67,71722013		

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{5,0}	r-0,3068	Kjc-20 ⁵ / r - 0,3068
25	-91	76,8	15.820,800	125,78	Válido					13244435375	109,6932	120740714,8
25	-91	70,6	14.543,600	120,60	Válido					10302008136	109,6932	93916561,25
25	-91	23,7	4.882,200	69,87	Válido					308543362,8	109,6932	2812784,774
25	-91	42,3	8.713,800	93,35	Válido					2122919836	109,6932	19353249,21
25	-91	77,2	15.903,200	126,11	Válido					13450499074	109,6932	122619260,6
25	-91	68,5	14.111,000	118,79	Válido					9409336423	109,6932	85778666,53
25	-91	52	10.712,000	103,50	Válido					4058831005	109,6932	37001664,69
25	-91	29,4	6.056,400	77,82	Válido					646395668,1	109,6932	5892759,698
25	-91	46,3	9.537,800	97,66	Válido					2825097040	109,6932	25754532,09
25	-91	124,3	25.605,800	160,02	Válido					53817221543	109,6932	490615840,8
25	-91	39,7	8.178,200	90,43	Válido					1733378059	109,6932	15802055,73
25	-91	63,3	13.039,800	114,19	Válido					7414276768	109,6932	67591033,61
25	-91	71,4	14.708,400	121,28	Válido					10655644229	109,6932	97140426,47
25	-91	76	15.656,000	125,12	Válido					12838317700	109,6932	117038409,9
25	-91	55,9	11.515,400	107,31	Válido					5073594545	109,6932	46252589,45
25	-91	21,3	4.387,800	66,24	Válido					211403048,7	109,6932	1927221,092
25	-91	76,5	15.759,000	125,53	Válido					13091204396	109,6932	119343809,8
25	-91	23,1	4.758,600	68,98	Válido					281974254,6	109,6932	2570571,873
25	-91	70,2	14.461,200	120,25	Válido					10128015345	109,6932	92330384,61
25	-91	38,6	7.951,600	89,17	Válido					1583593244	109,6932	14436567,11
25	-91	112,8	23.236,800	152,44	Válido					40741200334	109,6932	371410446
25	-91	19,9	4.099,400	64,03	Válido					165414515,9	109,6932	1507974,203
25	-91	77	15.862,000	125,94	Válido					13347215994	109,6932	121677697,4
25	-91	47,3	9.743,800	98,71	Válido					3021124014	109,6932	27541579,74
25	-91	48,9	10.073,400	100,37	Válido					3352514424	109,6932	30562645,85
25	-91	93,9	19.343,400	139,08	Válido					23944413259	109,6932	218285301,7
25	-91	29,1	5.994,600	77,42	Válido					624449814,2	109,6932	5692693,934
25	-91	56,6	11.659,600	107,98	Válido					5271213411	109,6932	48054149,31
25	-91	51,4	10.588,400	102,90	Válido					3915357118	109,6932	35693708,61
25	-91	76,6	15.779,600	125,62	Válido					13142156227	109,6932	119808303,8
25	-91	59,4	12.236,400	110,62	Válido					6110526816	109,6932	55705611,79
50	-91	22,4	4.614,400	67,93	Válido	47,93	1,148698	55,06	75,06	505869888,1	109,6932	4611679,558
50	-91	31,7	6.530,200	80,81	Válido	60,81	1,148698	69,85	89,85	1663001411	109,6932	15160478,6
50	-91	14,9	3.069,400	55,40	Válido	35,40	1,148698	40,67	60,67	111219046,6	109,6932	1013910,129
50	-91	46,5	9.579,000	97,87	Válido	77,87	1,148698	89,45	109,45	5727259250	109,6932	52211616,13
50	-91	24,6	5.067,600	71,19	Válido	51,19	1,148698	58,80	78,80	702799861	109,6932	6406959,238
50	-91	58,7	12.092,200	109,96	Válido	89,96	1,148698	103,34	123,34	11786552849	109,6932	107450168,7
50	-91	41,6	8.569,600	92,57	Válido	72,57	1,148698	83,36	103,36	4026052796	109,6932	36702847,54

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{5,0}	r-0,3068	Kjc-20 ⁵ / r - 0,3068
50	-91	30,4	6.262,400	79,14	Válido	59,14	1,148698	67,93	87,93	1446322072	109,6932	13185157,07
50	-91	46,1	9.496,600	97,45	Válido	77,45	1,148698	88,97	108,97	5573796799	109,6932	50812600,95
50	-91	48,7	10.032,200	100,16	Válido	80,16	1,148698	92,08	112,08	6619758137	109,6932	60347935,31
50	-91	30,2	6.221,200	78,87	Válido	58,87	1,148698	67,63	87,63	1414715959	109,6932	12897025,15
50	-91	47,3	9.743,800	98,71	Válido	78,71	1,148698	90,41	110,41	6042248029	109,6932	55083159,48
50	-91	55,6	11.453,600	107,02	Válido	87,02	1,148698	99,96	119,96	9980737884	109,6932	90987753,88
50	-91	41,5	8.549,000	92,46	Válido	72,46	1,148698	83,24	103,24	3995265945	109,6932	36422184,28
50	-91	18,3	3.769,800	61,40	Válido	41,40	1,148698	47,55	67,55	243199881,7	109,6932	2217091,686
50	-91	54,6	11.247,600	106,05	Válido	86,05	1,148698	98,85	118,85	9438501357	109,6932	86044543,85
50	-91	100,5	20.703,000	143,89	Válido	123,89	1,148698	142,31	162,31	58361994479	109,6932	532047515,1
50	-91	27,7	5.706,200	75,54	Válido	55,54	1,148698	63,80	83,80	1056904307	109,6932	9635094,126
50	-91	76,2	15.697,200	125,29	Válido	105,29	1,148698	120,94	140,94	25878196766	109,6932	235914320,7
50	-91	75,7	15.594,200	124,88	Válido	104,88	1,148698	120,47	140,47	25376158358	109,6932	231337570,2
50	-91	78,6	16.191,600	127,25	Válido	107,25	1,148698	123,19	143,19	28375264955	109,6932	258678431,8
50	-91	59,1	12.174,600	110,34	Válido	90,34	1,148698	103,77	123,77	12033613287	109,6932	109702454,5
50	-91	81	16.686,000	129,17	Válido	109,17	1,148698	125,41	145,41	31019307111	109,6932	282782406,9
50	-91	86,5	17.819,000	133,49	Válido	113,49	1,148698	130,36	150,36	37650990087	109,6932	343239053
50	-91	117,8	24.266,800	155,78	Válido	135,78	1,148698	155,97	175,97	92294917803	109,6932	841391424,5
50	-91	52,7	10.856,200	104,19	Válido	84,19	1,148698	96,71	116,71	8460815802	109,6932	77131634,43
50	-91	57,4	11.824,400	108,74	Válido	88,74	1,148698	101,94	121,94	11005974767	109,6932	100334157,1
50	-91	34,3	7.065,800	84,06	Válido	64,06	1,148698	73,58	93,58	2157284806	109,6932	19666531,8
50	-91	18,8	3.872,800	62,23	Válido	42,23	1,148698	48,51	68,51	268676217	109,6932	2449342,503
50	-91	45,3	9.331,800	96,60	Válido	76,60	1,148698	87,99	107,99	5274837178	109,6932	48087184,78
50	-91	30,6	6.303,600	79,40	Válido	59,40	1,148698	68,23	88,23	1478383992	109,6932	13477444,29
50	-91	86	17.716,000	133,10	Válido	113,10	1,148698	129,92	149,92	37014437046	109,6932	337436022
50	-91	20,2	4.161,200	64,51	Válido	44,51	1,148698	51,13	71,13	349292579,2	109,6932	3184268,297
50	-91	67	13.802,000	117,48	Válido	97,48	1,148698	111,98	131,98	17605575380	109,6932	160498329,7
100	-91	21,6	4.449,600	66,71	Válido	46,71	1,319508	61,63	81,63	888979712,7	109,6932	8104237,206
100	-91	126,4	26.038,400	161,36	Válido	141,36	1,319508	186,53	206,53	2,25817E+11	109,6932	2058625008
100	-91	47,6	9.805,600	99,02	Válido	79,02	1,319508	104,27	124,27	12326332136	109,6932	112370977,7
100	-91	39,6	8.157,600	90,32	Válido	70,32	1,319508	92,79	112,79	6877598144	109,6932	62698491,29
100	-91	53,7	11.062,200	105,18	Válido	85,18	1,319508	112,39	132,39	17933767263	109,6932	163490237
100	-91	33	6.798,000	82,45	Válido	62,45	1,319508	82,40	102,40	3799458259	109,6932	34637135,75
100	-91	40,1	8.260,600	90,89	Válido	70,89	1,319508	93,54	113,54	7160095236	109,6932	65273829,52
100	-91	42,7	8.796,200	93,79	Válido	73,79	1,319508	97,36	117,36	8749644771	109,6932	79764696,18
100	-91	41,1	8.466,600	92,01	Válido	72,01	1,319508	95,02	115,02	7747267711	109,6932	70626690,73
100	-91	23,3	4.799,800	69,28	Válido	49,28	1,319508	65,03	85,03	1162624409	109,6932	10598874,04
100	-91	41,3	8.507,800	92,24	Válido	72,24	1,319508	95,32	115,32	7868294965	109,6932	71730015,76

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{5,0}	r-0,3068	Kjc-20 ⁵ / r - 0,3068
100	-91	45,6	9.393,600	96,92	Válido	76,92	1,319508	101,50	121,50	10771418838	109,6932	98195866,63
100	-91	25,9	5.335,400	73,04	Válido	53,04	1,319508	69,99	89,99	1679709024	109,6932	15312790,8
100	-91	32	6.592,000	81,19	Válido	61,19	1,319508	80,74	100,74	3431645734	109,6932	31284033,42
100	-91	27,7	5.706,200	75,54	Válido	55,54	1,319508	73,28	93,28	2113808614	109,6932	19270188,25
100	-91	41,3	8.507,800	92,24	Válido	72,24	1,319508	95,32	115,32	7868294965	109,6932	71730015,76
100	-91	33,4	6.880,400	82,95	Válido	62,95	1,319508	83,06	103,06	3953445569	109,6932	36040935,71
100	-91	32,1	6.612,600	81,32	Válido	61,32	1,319508	80,91	100,91	3467337911	109,6932	31609415,27
100	-91	35,9	7.395,400	86,00	Válido	66,00	1,319508	87,08	107,08	5008006598	109,6932	45654667,73
100	-91	35,8	7.374,800	85,88	Válido	65,88	1,319508	86,92	106,92	4962696436	109,6932	45241605,09
100	-91	40,6	8.363,600	91,45	Válido	71,45	1,319508	94,28	114,28	7449957943	109,6932	67916315,16
100	-91	32,9	6.777,400	82,32	Válido	62,32	1,319508	82,24	102,24	3761579430	109,6932	34291819,64
100	-91	37,6	7.745,600	88,01	Válido	68,01	1,319508	89,74	109,74	5819622634	109,6932	53053631,71
100	-91	19,7	4.058,200	63,70	Válido	43,70	1,319508	57,67	77,67	637772925,2	109,6932	5814151,882
100	-91	49,2	10.135,200	100,67	Válido	80,67	1,319508	106,45	126,45	13668494724	109,6932	124606582
100	-91	42,3	8.713,800	93,35	Válido	73,35	1,319508	96,78	116,78	8491679343	109,6932	77412996,82
100	-91	29,5	6.077,000	77,96	Válido	57,96	1,319508	76,47	96,47	2615284030	109,6932	23841806,33
100	-91	25,4	5.232,400	72,34	Válido	52,34	1,319508	69,06	89,06	1570488772	109,6932	14317102,35
100	-91	19,6	4.037,600	63,54	Válido	43,54	1,319508	57,45	77,45	626047730	109,6932	5707261,07
100	-91	46,6	9.599,600	97,98	Válido	77,98	1,319508	102,89	122,89	11532086129	109,6932	105130364,8
200	-91	50,7	10.444,200	102,20	Válido	82,20	1,515717	124,59	144,59	30016935869	109,6932	273644454,4
200	-91	33,9	6.983,400	83,57	Válido	63,57	1,515717	96,35	116,35	8303088687	109,6932	75693741,15
200	-91	44,8	9.228,800	96,07	Válido	76,07	1,515717	115,30	135,30	20373294050	109,6932	185729781,3
200	-91	40,9	8.425,400	91,79	Válido	71,79	1,515717	108,81	128,81	15254889921	109,6932	139068692,7
200	-91	44,6	9.187,600	95,85	Válido	75,85	1,515717	114,97	134,97	20087425876	109,6932	183123711,2
200	-91	25,8	5.314,800	72,90	Válido	52,90	1,515717	80,19	100,19	3314958862	109,6932	30220276,75
200	-91	25,4	5.232,400	72,34	Válido	52,34	1,515717	79,33	99,33	3140977544	109,6932	28634204,71
200	-91	25,6	5.273,600	72,62	Válido	52,62	1,515717	79,76	99,76	3227200199	109,6932	29420239,35
200	-91	13,8	2.842,800	53,32	Válido	33,32	1,515717	50,50	70,50	328457384,2	109,6932	2994327,672
200	-91	23	4.738,000	68,83	Válido	48,83	1,515717	74,02	94,02	2221584642	109,6932	20252710,67
200	-91	20,4	4.202,400	64,83	Válido	44,83	1,515717	67,94	87,94	1447891710	109,6932	13199466,42
200	-91	30,2	6.221,200	78,87	Válido	58,87	1,515717	89,24	109,24	5658863837	109,6932	51588100,6
200	-91	23,2	4.779,200	69,13	Válido	49,13	1,515717	74,47	94,47	2290348231	109,6932	20879582,61
200	-91	38,8	7.992,800	89,40	Válido	69,40	1,515717	105,19	125,19	12881437626	109,6932	117431505,6
200	-91	36,9	7.601,400	87,19	Válido	67,19	1,515717	101,83	121,83	10951766489	109,6932	99839976,3
Total de Válidos					110						Soma dos K0	11769480029
											Somatoria ^{1/5}	103,3121632
											anterior +20	123,3121632
											Kjc Médio	114,2620177

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{5,0}	r-0,3068	Kjc-20 ⁵ / r - 0,3068
												84,26201774
												1,203743111
											Ln	0,185435961
											T - TO	9,759494615
25	-60	261	53.766,000	231,8749663	Válido					4,26971E+11	120,6932	3537654617
25	-60	62,3	12.833,800	113,2863628	Válido					7064652469	120,6932	58533972,66
25	-60	81,3	16.747,800	129,4132914	Válido					15680157283	120,6932	129917487,3
25	-60	54,2	11.165,200	105,66551	Válido					4613494671	120,6932	38224975,98
25	-60	123,4	25.420,400	159,4377622	Válido					52711092873	120,6932	436736227,7
25	-60	191,8	39.510,800	198,7732376	Válido					1,82605E+11	120,6932	1512967939
25	-60	74,6	15.367,600	123,9661244	Válido					12146727101	120,6932	100641354,3
25	-60	100,3	20.661,800	143,7421302	Válido					29012686193	120,6932	240383768
25	-60	40,2	8.281,200	91,00109889	Válido					1804368979	120,6932	14950046,72
25	-60	78,2	16.109,200	126,9220233	Válido					13974485970	120,6932	115785197,3
25	-60	129	26.574,000	163,0153367	Válido					59829181921	120,6932	495712947,5
25	-60	140,9	29.025,400	170,3684243	Válido					76874666392	120,6932	636942813,6
25	-60	56,1	11.556,600	107,5016279	Válido					5129566494	120,6932	42500874,07
25	-60	67,4	13.884,400	117,8320839	Válido					8962032666	120,6932	74254661,12
25	-60	112,2	23.113,200	152,0302601	Válido					40120597759	120,6932	332418046,4
25	-60	120,3	24.781,800	157,4223618	Válido					49010263952	120,6932	406073117,2
25	-60	90	18.540,000	136,1616686	Válido					21150186891	120,6932	175239258,6
25	-60	68	14.008,000	118,355397	Válido					9204304519	120,6932	76261997,52
25	-60	81,4	16.768,400	129,4928569	Válido					15737253434	120,6932	130390555,8
25	-60	141,9	29.231,400	170,9719275	Válido					78429780489	120,6932	649827666,3
25	-60	34	7.004,000	83,68990381	Válido					1047979929	120,6932	8683007,234
25	-60	284,9	58.689,400	242,2589524	Válido					5,42371E+11	120,6932	4493797647
25	-60	69	14.214,000	119,2224811	Válido					9617239086	120,6932	79683354,87
25	-60	52	10.712,000	103,4987923	Válido					4058831005	120,6932	33629326,3
25	-60	127,4	26.244,400	162,0012346	Válido					57737849062	120,6932	478385269,9
25	-60	193,2	39.799,200	199,4973684	Válido					1,86333E+11	120,6932	1543858975
25	-60	90,4	18.622,400	136,4639146	Válido					21426780405	120,6932	177530966,2
25	-60	142,5	29.355,000	171,3330091	Válido					79372185368	120,6932	657635934,5
25	-60	46,9	9.661,400	98,29242087	Válido					2941701555	120,6932	24373382,72
25	-60	143,1	29.478,600	171,6933313	Válido					80321617169	120,6932	665502424,1
25	-60	82,3	16.953,800	130,2067587	Válido					16257027737	120,6932	134697130,7
50	-60	164,7	33.928,200	184,1960912	Válido	164,19609	1,148698	188,6117798	208,6117798	2,38695E+11	120,6932	1977703874
50	-60	109,7	22.598,200	150,326977	Válido	130,32698	1,148698	149,706384	169,706384	75197188506	120,6932	623044119,4

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{5,0}	r-0,3068	Kjc-20 ⁵ / r - 0,3068
50	-60	59,4	12.236,400	110,6182625	Válido	90,618263	1,148698	104,0930491	124,0930491	12221053631	120,6932	101257184,6
50	-60	98,6	20.311,600	142,5187707	Válido	122,51877	1,148698	140,7371104	160,7371104	55213229289	120,6932	457467606,2
50	-60	52,9	10.897,400	104,3906126	Válido	84,390613	1,148698	96,93935788	116,9393579	8560530781	120,6932	70928028,93
50	-60	112,9	23.257,400	152,5037704	Válido	132,50377	1,148698	152,2068631	172,2068631	81690429226	120,6932	676843676,6
50	-60	147,8	30.446,800	174,4901143	Válido	154,49011	1,148698	177,4625402	197,4625402	1,76008E+11	120,6932	1458312729
50	-60	82,9	17.077,400	130,6805265	Válido	110,68053	1,148698	127,1385387	147,1385387	33218963474	120,6932	275234756,2
50	-60	198	40.788,000	201,9603922	Válido	181,96039	1,148698	209,0176031	229,0176031	3,98946E+11	120,6932	3305457018
50	-60	97	19.982,000	141,3577023	Válido	121,3577	1,148698	139,403393	159,403393	52646162733	120,6932	436198250,9
50	-60	86,1	17.736,600	133,1788271	Válido	113,17883	1,148698	130,0083326	150,0083326	37141200842	120,6932	307732339,9
50	-60	80,6	16.603,600	128,8549572	Válido	108,85496	1,148698	125,0415103	145,0415103	30568283533	120,6932	253272624,6
50	-60	96,8	19.940,800	141,2118975	Válido	121,2119	1,148698	139,2359073	159,2359073	52330664016	120,6932	433584195,4
50	-60	68,2	14.049,200	118,5293213	Válido	98,529321	1,148698	113,1804693	133,1804693	18571947665	120,6932	153877332,5
50	-60	95,1	19.590,600	139,9664245	Válido	119,96642	1,148698	137,8052345	157,8052345	49696816886	120,6932	411761531,6
50	-60	147,4	30.364,400	174,2538378	Válido	154,25384	1,148698	177,1911298	197,1911298	1,74667E+11	120,6932	1447195102
50	-60	68,1	14.028,600	118,4423911	Válido	98,442391	1,148698	113,0806127	133,0806127	18490164043	120,6932	153199716,7
50	-60	49,9	10.279,400	101,3873759	Válido	81,387376	1,148698	93,48954486	113,4895449	7141924050	120,6932	59174204,1
50	-60	46,7	9.620,200	98,08261824	Válido	78,082618	1,148698	89,69337512	109,6933751	5804994775	120,6932	48097115,45
50	-60	63,1	12.998,600	114,0114029	Válido	94,011403	1,148698	107,9907439	127,9907439	14686985441	120,6932	121688590,9
50	-60	142,3	29.313,800	171,2127332	Válido	151,21273	1,148698	173,6978178	193,6978178	1,58115E+11	120,6932	1310053435
50	-60	69,2	14.255,200	119,3951423	Válido	99,395142	1,148698	114,1750364	134,1750364	19402415213	120,6932	160758147,2
50	-60	129,9	26.759,400	163,5830065	Válido	143,58301	1,148698	164,9335633	184,9335633	1,22052E+11	120,6932	10111259017
50	-60	75,1	15.470,600	124,3808667	Válido	104,38087	1,148698	119,9021299	139,9021299	24781893628	120,6932	205329659,2
50	-60	76,5	15.759,000	125,5348557	Válido	105,53486	1,148698	121,2277152	141,2277152	26182408792	120,6932	216933586,9
50	-60	48	9.888,000	99,43842316	Válido	79,438423	1,148698	91,250786	111,250786	6326784909	120,6932	52420392,44
50	-60	81,9	16.871,400	129,8899534	Válido	109,88995	1,148698	126,2304087	146,2304087	32049402858	120,6932	265544395,7
50	-60	163,2	33.619,200	183,3553926	Válido	163,35539	1,148698	187,6460708	207,6460708	2,32647E+11	120,6932	1927589591
50	-60	127,4	26.244,400	162,0012346	Válido	142,00123	1,148698	163,1165846	183,1165846	1,15476E+11	120,6932	956770539,9
50	-60	76,2	15.697,200	125,2884671	Válido	105,28847	1,148698	120,944689	140,944689	25878196766	120,6932	214413047
50	-60	129,1	26.594,600	163,0785087	Válido	143,07851	1,148698	164,3540476	184,3540476	1,19923E+11	120,6932	993617468,1
50	-60	176,8	36.420,800	190,8423433	Válido	170,84234	1,148698	196,2463187	216,2463187	2,91077E+11	120,6932	2411708377
50	-60	86,2	17.757,200	133,2561443	Válido	113,25614	1,148698	130,0971467	150,0971467	37268237810	120,6932	308784901
50	-60	94,4	19.446,400	139,4503496	Válido	119,45035	1,148698	137,2124201	157,2124201	48637038303	120,6932	402980767
100	-60	415,3	85.551,800	292,4923931	Válido	272,49239	1,319508	359,5558683	379,5558683	6,00941E+12	120,6932	49790799972
100	-60	225,7	46.494,200	215,6251377	Válido	195,62514	1,319508	258,1289167	278,1289167	1,146E+12	120,6932	9495120748
100	-60	230	47.380,000	217,6694742	Válido	197,66947	1,319508	260,8264349	280,8264349	1,20714E+12	120,6932	10001732258
100	-60	131,1	27.006,600	164,3368492	Válido	144,33685	1,319508	190,4536143	210,4536143	2,5058E+11	120,6932	2076171821
100	-60	57,5	11.845,000	108,8347371	Válido	88,834737	1,319508	117,2181384	137,2181384	22129627235	120,6932	183354383,1
100	-60	82,8	17.056,800	130,6016845	Válido	110,60168	1,319508	145,9397977	165,9397977	66201632505	120,6932	548511701,6

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{5,0}	r-0,3068	Kjc-20 ⁵ / r - 0,3068
100	-60	88,3	18.189,800	134,8695666	Válido	114,86957	1,319508	151,5713019	171,5713019	79999063707	120,6932	662829916,7
100	-60	113	23.278,000	152,5712948	Válido	132,57129	1,319508	174,9288722	194,9288722	1,63798E+11	120,6932	1357140088
100	-60	64	13.184,000	114,8216008	Válido	94,821601	1,319508	125,1178523	145,1178523	30661712335	120,6932	254046726,2
100	-60	107,7	22.186,200	148,9503273	Válido	128,95033	1,319508	170,150977	190,150977	1,42617E+11	120,6932	1181651561
100	-60	112,3	23.133,800	152,0979947	Válido	132,09799	1,319508	174,304349	194,304349	1,60894E+11	120,6932	1333086450
100	-60	160,8	33.124,800	182,0021978	Válido	162,0022	1,319508	213,7631815	233,7631815	4,46339E+11	120,6932	3698126146
100	-60	265,4	54.672,400	233,8212993	Válido	213,8213	1,319508	282,1388959	302,1388959	1,78778E+12	120,6932	14812624386
100	-60	106,3	21.897,800	147,9790526	Válido	127,97905	1,319508	168,8693723	188,8693723	1,37327E+11	120,6932	1137814969
100	-60	153,5	31.621,000	177,8229457	Válido	157,82295	1,319508	208,2486253	228,2486253	3,91661E+11	120,6932	3245098725
100	-60	150,2	30.941,200	175,9011086	Válido	155,90111	1,319508	205,7127461	225,7127461	3,68388E+11	120,6932	3052271813
100	-60	168,9	34.793,400	186,5298904	Válido	166,52989	1,319508	219,7375077	239,7375077	5,12296E+11	120,6932	4244613685
100	-60	86,1	17.736,600	133,1788271	Válido	113,17883	1,319508	149,3403578	169,3403578	74282401685	120,6932	615464679,7
100	-60	282,6	58.215,600	241,2790915	Válido	221,27909	1,319508	291,9795117	311,9795117	2,12208E+12	120,6932	17582437722
100	-60	115,5	23.793,000	154,2497974	Válido	134,2498	1,319508	177,1436697	197,1436697	1,74433E+11	120,6932	1445258007
100	-60	128,1	26.388,600	162,4456832	Válido	142,44568	1,319508	187,9582059	207,9582059	2,34588E+11	120,6932	1943675016
100	-60	102,2	21.053,200	145,0972088	Válido	125,09721	1,319508	165,0667566	185,0667566	1,22546E+11	120,6932	1015348865
100	-60	68,5	14.111,000	118,7897302	Válido	98,78973	1,319508	130,3538305	150,3538305	37637345694	120,6932	311843133,6
100	-60	30,4	6.262,400	79,13532713	Válido	59,135327	1,319508	78,02953195	98,02953195	2892644143	120,6932	23966918,96
100	-60	94,5	19.467,000	139,5241915	Válido	119,52419	1,319508	157,7131161	177,7131161	97575113199	120,6932	808455763,9
100	-60	63,3	13.039,800	114,1919437	Válido	94,191944	1,319508	124,2870148	144,2870148	29657107073	120,6932	245723098,5
100	-60	89,4	18.416,400	135,7070374	Válido	115,70704	1,319508	152,6763512	172,6763512	82958112246	120,6932	687347027,4
100	-60	132,7	27.336,200	165,3366263	Válido	145,33663	1,319508	191,7728281	211,7728281	2,59379E+11	120,6932	2149079903
100	-60	241,9	49.831,400	223,2294783	Válido	203,22948	1,319508	268,1629044	288,1629044	1,38674E+12	120,6932	11489753227
100	-60	191,9	39.531,400	198,8250487	Válido	178,82505	1,319508	235,9610664	255,9610664	7,31479E+11	120,6932	6060646442
25	-60	128,7	26.512,200	162,8256737	Válido					59433513592	120,6932	492434649,1
25	-60	176	36.256,000	190,4100838	Válido					1,43707E+11	120,6932	1190676131
25	-60	131,7	27.130,200	164,7124768	Válido					63464356776	120,6932	525832083,1
25	-60	150,4	30.982,400	176,0181809	Válido					92443429627	120,6932	765937348,8
25	-60	133,7	27.542,200	165,9584285	Válido					66243900213	120,6932	548861909,5
25	-60	78,7	16.212,200	127,3271377	Válido					14241237760	120,6932	117995361,5
25	-60	678,2	139.709,200	373,7769388	Censurado					0	120,6932	2,184139821
25	-60	46,1	9.496,600	97,45050026	Válido					2786898399	120,6932	23090765,67
25	-60	369,1	76.034,600	275,7437216	Censurado					0	120,6932	2,184139821
25	-60	275,9	56.835,400	238,4017617	Válido					4,96913E+11	120,6932	4117161323
25	-60	687,7	141.666,200	376,3857064	Censurado					0	120,6932	2,184139821
25	-60	140,7	28.984,200	170,2474669	Válido					76565970955	120,6932	634385126,5
25	-60	89,1	18.354,600	135,4791497	Válido					20536096045	120,6932	170151226,8
25	-60	87,8	18.086,800	134,4871741	Válido					19669085990	120,6932	162967640,2

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{5,0}	r-0,3068	Kjc-20 ⁵ / r - 0,3068	
25	-60	219,5	45.217,000	212,6428931	Válido					2,65317E+11	120,6932	2198275691	
25	-60	427,1	87.982,600	296,6186103	Censurado					0	120,6932	2,184139821	
25	-60	197,6	40.705,600	201,7562886	Válido					1,98357E+11	120,6932	1643480018	
25	-60	64,1	13.204,600	114,9112701	Válido					7701741291	120,6932	63812553,57	
25	-60	234,5	48.307,000	219,7885347	Válido					3,18312E+11	120,6932	2637363592	
25	-60	133,7	27.542,200	165,9584285	Válido					66243900213	120,6932	548861909,5	
25	-60	38,4	7.910,400	88,9404295	Válido					1557291538	120,6932	12902893,77	
25	-60	116,3	23.957,800	154,783074	Válido					44481229776	120,6932	368547936,2	
25	-60	166,1	34.216,600	184,9772959	Válido					1,22214E+11	120,6932	1012600418	
25	-60	217,1	44.722,600	211,4771855	Válido					2,57386E+11	120,6932	2132565477	
25	-60	129	26.574,000	163,0153367	Válido					59829181921	120,6932	495712947,5	
25	-60	373,6	76.961,600	277,4195379	Censurado					0	120,6932	2,184139821	
25	-60	164,6	33.907,600	184,140164	Válido					1,19145E+11	120,6932	987169009,6	
25	-60	77,7	16.006,200	126,5156117	Válido					13710911532	120,6932	113601358,9	
25	-60	200,2	41.241,200	203,0792949	Válido					2,05682E+11	120,6932	1704171716	
25	-60	63,6	13.101,600	114,4622208	Válido					7521262719	120,6932	62317203,61	
25	-60	55	11.330,000	106,4424727	Válido					4826539979	120,6932	39990156,69	
T. Válidos					121						<i>Soma dos K0</i>		2,14938E+11
T. Censurados					5						<i>Somatoria</i> ^{1/5}		184,6982335
											anterior +20		204,6982335
											Kjc Médio		188,5186682
													158,5186682
													2,264552403
											LN		0,817377125
											T - T0		43,01855808
25	-40	155,4	32.012,400	178,9200939	Válido					1,01366E+11	76,6932	1321713135	
25	-40	203,4	41.900,400	204,695872	Válido					2,14925E+11	76,6932	2802393296	
25	-40	275,9	56.835,400	238,4017617	Válido					4,96913E+11	76,6932	6479236425	
25	-40	349,2	71.935,200	268,2073824	Censurado					0	76,6932	3,430412845	
25	-40	165,5	34.093,000	184,6428986	Válido					1,2098E+11	76,6932	1577459282	
25	-40	311,7	64.210,200	253,3973165	Válido					6,92595E+11	76,6932	9030721162	
25	-40	254,5	52.427,000	228,9694303	Válido					3,98487E+11	76,6932	5195853943	
25	-40	548,6	113.011,600	336,1719798	Censurado					0	76,6932	3,430412845	
25	-40	773,9	159.423,400	399,2785995	Censurado					0	76,6932	3,430412845	
25	-40	758,7	156.292,200	395,3380832	Censurado					0	76,6932	3,430412845	
25	-40	139,3	28.695,800	169,3983471	Válido					74426734225	76,6932	970447630,6	
25	-40	1544,1	318.084,600	563,9898935	Censurado					0	76,6932	3,430412845	
25	-40	136,6	28.139,600	167,7486215	Válido					70407218470	76,6932	918037302,8	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{5,0}	r-0,3068	Kjc-20 ⁵ / r - 0,3068
25	-40	1433,6	295.321,600	543,4350007	Censurado					0	76,6932	3,430412845
25	-40	1337,1	275.442,600	524,826257	Censurado					0	76,6932	3,430412845
25	-40	483,2	99.539,200	315,498336	Censurado					0	76,6932	3,430412845
25	-40	1573,3	324.099,800	569,2976374	Censurado					0	76,6932	3,430412845
25	-40	619,9	127.699,400	357,3505282	Censurado					0	76,6932	3,430412845
25	-40	562,8	115.936,800	340,4949339	Censurado					0	76,6932	3,430412845
25	-40	264,8	54.548,800	233,5568453	Válido					4,44189E+11	76,6932	5791760906
25	-40	1337,2	275.463,200	524,8458821	Censurado					0	76,6932	3,430412845
25	-40	1174	241.844,000	491,7763719	Censurado					0	76,6932	3,430412845
25	-40	1714,3	353.145,800	594,2607172	Censurado					0	76,6932	3,430412845
25	-40	61,6	12.689,600	112,6481247	Válido					6826265346	76,6932	89007439,33
25	-40	251	51.706,000	227,3895336	Válido					3,83649E+11	76,6932	5002387332
25	-40	113,2	23.319,200	152,706254	Válido					41158254697	76,6932	536661069
25	-40	233,2	48.039,200	219,1784661	Válido					3,13482E+11	76,6932	4087474520
25	-40	1127,9	232.347,400	482,0242732	Censurado					0	76,6932	3,430412845
25	-40	283	58.298,000	241,4497877	Válido					5,3257E+11	76,6932	6944156226
25	-40	195,2	40.211,200	200,5273049	Válido					1,91741E+11	76,6932	2500101460
50	-40	187	38.522,000	196,2702219	Válido	176,27022	1,148698	202,4813139	222,4813139	3,40349E+11	76,6932	4437801705
50	-40	107,5	22.145,000	148,8119619	Válido	128,81196	1,148698	147,9660887	167,9660887	70926898588	76,6932	924813394
50	-40	245	50.470,000	224,6552915	Válido	204,65529	1,148698	235,0871967	255,0871967	7,18034E+11	76,6932	9362418006
50	-40	119	24.514,000	156,5694734	Válido	136,56947	1,148698	156,8771294	176,8771294	95016312031	76,6932	1238914428
50	-40	313,1	64.498,600	253,9657457	Válido	233,96575	1,148698	268,7560672	288,7560672	1,40214E+12	76,6932	18282455616
50	-40	205,3	42.291,800	205,6497022	Válido	185,6497	1,148698	213,2555075	233,2555075	4,41064E+11	76,6932	5751013947
50	-40	217,1	44.722,600	211,4771855	Válido	191,47719	1,148698	219,949528	239,949528	5,14772E+11	76,6932	6712098376
50	-40	308,7	63.592,200	252,1749393	Válido	232,17494	1,148698	266,6989708	286,6989708	1,34929E+12	76,6932	17593402555
50	-40	274,2	56.485,200	237,6661524	Válido	217,66615	1,148698	250,0327512	270,0327512	9,77202E+11	76,6932	12741707735
50	-40	455,2	93.771,200	306,2208353	Válido	286,22084	1,148698	328,7814027	348,7814027	3,84181E+12	76,6932	50093267529
50	-40	167	34.402,000	185,4777615	Válido	165,47776	1,148698	190,0840324	210,0840324	2,48158E+11	76,6932	3235722904
50	-40	49,1	10.114,600	100,5713677	Válido	80,571368	1,148698	92,55219753	112,5521975	6790999130	76,6932	88547604,35
50	-40	93,8	19.322,800	139,0064747	Válido	119,00647	1,148698	136,7025417	156,7025417	47740058519	76,6932	622480982,9
50	-40	107,4	22.124,400	148,7427309	Válido	128,74273	1,148698	147,8865632	167,8865632	70736502348	76,6932	922330824
50	-40	167	34.402,000	185,4777615	Válido	165,47776	1,148698	190,0840324	210,0840324	2,48158E+11	76,6932	3235722904
50	-40	212,8	43.836,800	209,3723955	Válido	189,3724	1,148698	217,5317592	237,5317592	4,87095E+11	76,6932	6351210417
50	-40	122,7	25.276,200	158,9849049	Válido	138,9849	1,148698	159,6517317	179,6517317	1,03721E+11	76,6932	1352419141
50	-40	219,3	45.175,800	212,545995	Válido	192,546	1,148698	221,1772677	241,1772677	5,29301E+11	76,6932	6901533257
50	-40	168,9	34.793,400	186,5298904	Válido	166,52989	1,148698	191,2926111	211,2926111	2,56148E+11	76,6932	3339905027
50	-40	272,7	56.176,200	237,0151894	Válido	217,01519	1,148698	249,2849911	269,2849911	9,62677E+11	76,6932	12552314082
50	-40	60,6	12.483,600	111,7300318	Válido	91,730032	1,148698	105,3701366	125,3701366	12989358861	76,6932	169367803,9

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{5,0}	r-0,3068	Kjc-20 ⁵ / r - 0,3068
50	-40	271,9	56.011,400	236,667277	Válido	216,66728	1,148698	248,8853447	268,8853447	9,54985E+11	76,6932	12452018669
50	-40	386,6	79.639,600	282,2048901	Válido	262,20489	1,148698	301,1943259	321,1943259	2,47876E+12	76,6932	32320425653
50	-40	308,8	63.612,800	252,2157806	Válido	232,21578	1,148698	266,7458852	286,7458852	1,35048E+12	76,6932	17608882072
50	-40	349,4	71.976,400	268,2841777	Válido	248,28418	1,148698	285,2036265	305,2036265	1,88701E+12	76,6932	24604716101
50	-40	166,5	34.299,000	185,199892	Válido	165,19989	1,148698	189,7648442	209,7648442	2,46081E+11	76,6932	3208646937
50	-40	137,8	28.386,800	168,4838271	Válido	148,48383	1,148698	170,563128	190,563128	1,44353E+11	76,6932	1882213572
50	-40	313,1	64.498,600	253,9657457	Válido	233,96575	1,148698	268,7560672	288,7560672	1,40214E+12	76,6932	18282455616
50	-40	139,9	28.819,400	169,7627757	Válido	149,76278	1,148698	172,032254	192,032254	1,50678E+11	76,6932	1964683236
50	-40	50,6	10.423,600	102,0960332	Válido	82,096033	1,148698	94,30357832	114,3035783	7458317392	76,6932	97248744,24
50	-40	251,8	51.870,800	227,7516191	Válido	207,75162	1,148698	238,6439431	258,6439431	7,7402E+11	76,6932	10092417831
50	-40	210	43.260,000	207,9903844	Válido	187,99038	1,148698	215,9442453	235,9442453	4,69578E+11	76,6932	6122817520
100	-40	75,5	15.553,000	124,7116675	Válido	104,71167	1,319508	138,1678736	158,1678736	50354161525	76,6932	656566182,2
100	-40	79,1	16.294,600	127,6503036	Válido	107,6503	1,319508	142,0454271	162,0454271	57827748758	76,6932	754014029,4
100	-40	187,7	38.666,200	196,6372294	Válido	176,63723	1,319508	233,0742216	253,0742216	6,87814E+11	76,6932	8968387263
100	-40	214,1	44.104,600	210,0109521	Válido	190,01095	1,319508	250,7209544	270,7209544	9,90725E+11	76,6932	12918030419
100	-40	91,5	18.849,000	137,2916603	Válido	117,29166	1,319508	154,7672737	174,7672737	88796461903	76,6932	1157814016
100	-40	167,8	34.566,800	185,9214888	Válido	165,92149	1,319508	218,934717	238,934717	5,03006E+11	76,6932	6558678039
100	-40	142,5	29.355,000	171,3330091	Válido	151,33301	1,319508	199,6851026	219,6851026	3,17489E+11	76,6932	4139724793
100	-40	153,4	31.600,400	177,7650134	Válido	157,76501	1,319508	208,1721833	228,1721833	3,90943E+11	76,6932	5097492860
100	-40	110,9	22.845,400	151,1469484	Válido	131,14695	1,319508	173,0494358	193,0494358	1,55185E+11	76,6932	2023457467
100	-40	112,4	23.154,400	152,1656992	Válido	132,1657	1,319508	174,3936856	194,3936856	1,61307E+11	76,6932	2103279171
100	-40	99,6	20.517,600	143,2396593	Válido	123,23966	1,319508	162,6157054	182,6157054	1,13714E+11	76,6932	1482707819
100	-40	108,2	22.289,200	149,2956798	Válido	129,29568	1,319508	170,6066723	190,6066723	1,44537E+11	76,6932	1884617422
100	-40	92,1	18.972,600	137,7410614	Válido	117,74106	1,319508	155,360262	175,360262	90510658436	76,6932	1180165366
100	-40	160,5	33.063,000	181,8323404	Válido	161,83234	1,319508	213,5390533	233,5390533	4,44004E+11	76,6932	5789348670
100	-40	96	19.776,000	140,6271666	Válido	120,62717	1,319508	159,1685006	179,1685006	1,02161E+11	76,6932	1332075275
100	-40	166,8	34.360,800	185,3666637	Válido	165,36666	1,319508	218,2026209	238,2026209	4,94652E+11	76,6932	6449751090
100	-40	141,2	29.087,200	170,5496995	Válido	150,5497	1,319508	198,6515195	218,6515195	3,09357E+11	76,6932	4033690733
100	-40	186,7	38.460,200	196,1127227	Válido	176,11272	1,319508	232,3821308	252,3821308	6,77663E+11	76,6932	8836022006
100	-40	81	16.686,000	129,1743008	Válido	109,1743	1,319508	144,0563536	164,0563536	62038614223	76,6932	808919359,5
100	-40	95,6	19.693,600	140,3338876	Válido	120,33389	1,319508	158,7815166	178,7815166	1,00925E+11	76,6932	1315960549
100	-40	86,1	17.736,600	133,1788271	Válido	113,17883	1,319508	149,3403578	169,3403578	74282401685	76,6932	968565683,6
100	-40	63,5	13.081,000	114,3721994	Válido	94,372199	1,319508	124,5248637	144,5248637	29941970287	76,6932	390412321,9
100	-40	40	8.240,000	90,77444574	Válido	70,774446	1,319508	93,38744104	113,387441	7103009182	76,6932	92615892,7
100	-40	94,8	19.528,800	139,7454829	Válido	119,74548	1,319508	158,005112	178,005112	98481734851	76,6932	1284099957
100	-40	272,3	56.093,800	236,8412971	Válido	216,8413	1,319508	286,1238069	306,1238069	1,91765E+12	76,6932	25004208664
100	-40	282,2	58.133,200	241,1082744	Válido	221,10827	1,319508	291,7541173	311,7541173	2,1139E+12	76,6932	27563103050
100	-40	175,4	36.132,400	190,085244	Válido	170,08524	1,319508	224,428825	244,428825	5,69368E+11	76,6932	7423971906

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{5,0}	r-0,3068	Kjc-20 ⁵ / r - 0,3068	
100	-40	102,6	21.135,600	145,3808791	Válido	125,38088	1,319508	165,4410618	185,4410618	1,23941E+11	76,6932	1616068200	
100	-40	124	25.544,000	159,8249042	Válido	139,8249	1,319508	184,5000672	204,5000672	2,13788E+11	76,6932	2787570016	
100	-40	96,4	19.858,400	140,9198354	Válido	120,91984	1,319508	159,5546793	179,5546793	1,03406E+11	76,6932	1348313455	
					Válidos	77						Somatoria	4,93763E+11
					Censurados	15						Somatoria ^{1/5}	218,1241298
										K0	238,1241298		
										Kjc Médio	219,016456		
											189,016456		
											2,700235086		
										Ln	0,993338838		
										T-T0	52,27942304		
25	-20	258,8	53.312,800	230,8956474	Válido					4,17194E+11	62,6932	6654533955	
25	-20	723,7	149.082,200	386,1116419	Censurado					0	62,6932	4,073937366	
25	-20	1133,7	233.542,200	483,2620407	Censurado					0	62,6932	4,073937366	
25	-20	914,9	188.469,400	434,1306255	Censurado					0	62,6932	4,073937366	
25	-20	1554,5	320.227,000	565,8860309	Censurado					0	62,6932	4,073937366	
25	-20	1497,2	308.423,200	555,3586229	Censurado					0	62,6932	4,073937366	
25	-20	1499	308.794,000	555,6923609	Censurado					0	62,6932	4,073937366	
25	-20	1575	324.450,000	569,6051264	Censurado					0	62,6932	4,073937366	
25	-20	1480,1	304.900,600	552,178051	Censurado					0	62,6932	4,073937366	
25	-20	1560,5	321.463,000	566,9770718	Censurado					0	62,6932	4,073937366	
25	-20	78,9	16.253,400	127,488823	Válido					14348831571	62,6932	228873810,4	
25	-20	102,7	21.156,200	145,4517102	Válido					31072981802	62,6932	495635600,1	
25	-20	772,5	159.135,000	398,9172847	Censurado					0	62,6932	4,073937366	
25	-20	798,3	164.449,800	405,5241053	Censurado					0	62,6932	4,073937366	
25	-20	1340	276.040,000	525,3950894	Censurado					0	62,6932	4,073937366	
25	-20	1348,6	277.811,600	527,0783623	Censurado					0	62,6932	4,073937366	
25	-20	1361,1	280.386,600	529,5154389	Censurado					0	62,6932	4,073937366	
25	-20	1368,5	281.911,000	530,9529169	Censurado					0	62,6932	4,073937366	
25	-20	1368,6	281.931,600	530,9723157	Censurado					0	62,6932	4,073937366	
25	-20	1371,1	282.446,600	531,4570538	Censurado					0	62,6932	4,073937366	
25	-20	1381,3	284.547,800	533,4302204	Censurado					0	62,6932	4,073937366	
25	-20	1391	286.546,000	535,2999159	Censurado					0	62,6932	4,073937366	
25	-20	1408,2	290.089,200	538,5992945	Censurado					0	62,6932	4,073937366	
25	-20	1436,3	295.877,800	543,9465047	Censurado					0	62,6932	4,073937366	
25	-20	1459,7	300.698,200	548,3595536	Censurado					0	62,6932	4,073937366	
25	-20	1472,5	303.335,000	550,7585678	Censurado					0	62,6932	4,073937366	
25	-20	1473,7	303.582,200	550,9829398	Censurado					0	62,6932	4,073937366	
25	-20	1496,6	308.299,600	555,2473323	Censurado					0	62,6932	4,073937366	

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{5,0}	r-0,3068	Kjc-20 ⁵ / r - 0,3068
25	-20	1524,5	314.047,000	560,398965	Censurado					0	62,6932	4,073937366
25	-20	1547,8	318.846,800	564,6652105	Censurado					0	62,6932	4,073937366
25	-20	1553,3	319.979,800	565,6675702	Censurado					0	62,6932	4,073937366
50	-20	195,2	40.211,200	200,5273049	Válido	180,5273	1,148698	207,3714181	227,3714181	3,83482E+11	62,6932	6116796759
50	-20	180,6	37.203,600	192,8823476	Válido	172,88235	1,148698	198,5896682	218,5896682	3,08875E+11	62,6932	4926775962
50	-20	328,8	67.732,800	260,2552593	Válido	240,25526	1,148698	275,9808212	295,9808212	1,60101E+12	62,6932	25537246866
50	-20	168,1	34.628,600	186,0876138	Válido	166,08761	1,148698	190,7845687	210,7845687	2,52765E+11	62,6932	4031770339
50	-20	362,3	74.633,800	273,191874	Válido	253,19187	1,148698	290,8410891	310,8410891	2,08103E+12	62,6932	33193907062
50	-20	326,5	67.259,000	259,3434017	Válido	239,3434	1,148698	274,9333718	294,9333718	1,57086E+12	62,6932	25056295016
50	-20	655,6	135.053,600	367,4963945	Censurado	347,49639	1,148698	399,1685368	419,1685368	0	62,6932	5,761417506
50	-20	648,8	133.652,800	365,5855577	Censurado	345,58556	1,148698	396,9735616	416,9735616	0	62,6932	5,761417506
50	-20	1017	209.502,000	457,7138844	Censurado	437,71388	1,148698	502,801219	522,801219	0	62,6932	5,761417506
50	-20	486,8	100.280,800	316,6714386	Válido	296,67144	1,148698	340,7859934	360,7859934	4,5963E+12	62,6932	5,761417506
50	-20	1619	333.514,000	577,5067099	Censurado	557,50671	1,148698	640,4070406	660,4070406	0	62,6932	5,761417506
50	-20	256	52.736,000	229,6432015	Válido	209,6432	1,148698	240,8168007	260,8168007	8,09905E+11	62,6932	12918541193
50	-20	695	143.170,000	378,3781178	Censurado	358,37812	1,148698	411,6683543	431,6683543	0	62,6932	5,761417506
50	-20	417	85.902,000	293,0904297	Válido	273,09043	1,148698	313,6985274	333,6985274	3,03782E+12	62,6932	48455375357
50	-20	1582	325.892,000	570,8695122	Censurado	550,86951	1,148698	632,7829025	652,7829025	0	62,6932	5,761417506
50	-20	807	166.242,000	407,7278504	Censurado	387,72785	1,148698	445,382344	465,382344	0	62,6932	5,761417506
50	-20	447	92.082,000	303,4501607	Válido	283,45016	1,148698	325,5987333	345,5987333	3,65943E+12	62,6932	58370457233
50	-20	502	103.412,000	321,5773624	Censurado	301,57736	1,148698	346,4214201	366,4214201	0	62,6932	5,761417506
50	-20	380	78.280,000	279,7856322	Válido	259,78563	1,148698	298,4153284	318,4153284	2,3665E+12	62,6932	37747239692
50	-20	291	59.946,000	244,8387224	Válido	224,83872	1,148698	258,2718706	278,2718706	1,14917E+12	62,6932	18330111316
50	-20	259	53.354,000	230,984848	Válido	210,98485	1,148698	242,3579478	262,3579478	8,36154E+11	62,6932	13337237791
50	-20	480	98.880,000	314,4519041	Válido	294,4519	1,148698	338,2364179	358,2364179	4,42692E+12	62,6932	5,761417506
50	-20	1266	260.796,000	510,6818971	Censurado	490,6819	1,148698	563,645488	583,645488	0	62,6932	5,761417506
50	-20	330	67.980,000	260,7297451	Válido	240,72975	1,148698	276,5258622	296,5258622	1,61688E+12	62,6932	25790415452
50	-20	162	33.372,000	182,6800482	Válido	162,68005	1,148698	186,8703037	206,8703037	2,27878E+11	62,6932	3634804186
50	-20	392	80.752,000	284,1689638	Válido	264,16896	1,148698	303,4504542	323,4504542	2,573E+12	62,6932	41041055499
50	-20	555	114.330,000	338,127195	Censurado	318,1272	1,148698	365,4321856	385,4321856	0	62,6932	5,761417506
50	-20	820	168.920,000	410,9987835	Censurado	390,99878	1,148698	449,1396594	469,1396594	0	62,6932	5,761417506
50	-20	512	105.472,000	324,7645301	Censurado	304,76453	1,148698	350,0825144	370,0825144	0	62,6932	5,761417506
50	-20	139	28.634,000	169,2158385	Válido	149,21584	1,148698	171,4039882	191,4039882	1,47946E+11	62,6932	2359848793
100	-20	193	39.758,000	199,3940822	Válido	179,39408	1,319508	236,7119106	256,7119106	7,43191E+11	62,6932	11854414698
100	-20	58,6	12.071,600	109,8708333	Válido	89,870833	1,319508	118,5852754	138,5852754	23450593205	62,6932	374053218
100	-20	186,1	38.336,600	195,7973442	Válido	175,79734	1,319508	231,9659864	251,9659864	6,71617E+11	62,6932	10712753276
100	-20	188,4	38.810,400	197,0035533	Válido	177,00355	1,319508	233,5575888	253,5575888	6,94976E+11	62,6932	11085351721

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{5,0}	r-0,3068	Kjc-20 ⁵ / r - 0,3068
100	-20	191,7	39.490,200	198,721413	Válido	178,72141	1,319508	235,8243183	255,8243183	7,29362E+11	62,6932	11633824311
100	-20	130,8	26.944,800	164,1487131	Válido	144,14871	1,319508	190,2053672	210,2053672	2,48951E+11	62,6932	3970940692
100	-20	373,5	76.941,000	277,3824075	Válido	257,38241	1,319508	339,6181228	359,6181228	4,51808E+12	62,6932	72066569279
100	-20	371,9	76.611,400	276,7876442	Válido	256,78764	1,319508	338,833328	358,833328	4,46612E+12	62,6932	71237745891
100	-20	315,9	65.075,400	255,0988044	Válido	235,0988	1,319508	310,2147322	330,2147322	2,87284E+12	62,6932	45823858585
100	-20	334,9	68.989,400	262,6583332	Válido	242,65833	1,319508	320,1895903	340,1895903	3,36539E+12	62,6932	53680382814
100	-20	133,4	27.480,400	165,7721328	Válido	145,77213	1,319508	192,3474823	212,3474823	2,63289E+11	62,6932	4199640285
100	-20	112,2	23.113,200	152,0302601	Válido	132,03026	1,319508	174,2149727	194,2149727	1,60482E+11	62,6932	2559805386
100	-20	212,5	43.775,000	209,2247595	Válido	189,22476	1,319508	249,6835671	269,6835671	9,70398E+11	62,6932	15478517537
100	-20	231,2	47.627,200	218,2365689	Válido	198,23657	1,319508	261,5747209	281,5747209	1,22456E+12	62,6932	19532526169
100	-20	247,3	50.943,800	225,7073326	Válido	205,70733	1,319508	271,4324527	291,4324527	1,47336E+12	62,6932	23501112286
100	-20	212,3	43.733,800	209,1262776	Válido	189,12628	1,319508	249,5536195	269,5536195	9,67875E+11	62,6932	15438280526
100	-20	224,4	46.226,400	215,0032558	Válido	195,00326	1,319508	257,3083386	277,3083386	1,1279E+12	62,6932	17990733311
100	-20	100,6	20.723,600	143,956938	Válido	123,95694	1,319508	163,5621603	183,5621603	1,17062E+11	62,6932	1867212526
100	-20	123,7	25.482,200	159,6314505	Válido	139,63145	1,319508	184,2448036	204,2448036	2,12313E+11	62,6932	3386536819
100	-20	82,8	17.056,800	130,6016845	Válido	110,60168	1,319508	145,9397977	165,9397977	66201632505	62,6932	1055961931
100	-20	223	45.938,000	214,3315189	Válido	194,33152	1,319508	256,4219765	276,4219765	1,1086E+12	62,6932	17682993180
100	-20	74,4	15.326,400	123,7998384	Válido	103,79984	1,319508	136,964708	156,964708	48199593913	62,6932	768816935,7
100	-20	683,1	140.718,600	375,1247792	Válido	355,12478	1,319508	468,5899555	488,5899555	2,25925E+13	62,6932	8,14787473
100	-20	288,5	59.431,000	243,7847411	Válido	223,78474	1,319508	295,2857362	315,2857362	2,24498E+12	62,6932	35808976372
100	-20	299,8	61.758,800	248,5131787	Válido	228,51318	1,319508	301,524947	321,524947	2,49239E+12	62,6932	39755371079
100	-20	301,3	62.067,800	249,1341004	Válido	229,1341	1,319508	302,3442582	322,3442582	2,52644E+12	62,6932	40298435759
100	-20	384,1	79.124,600	281,2909526	Válido	261,29095	1,319508	344,7754789	364,7754789	4,87171E+12	62,6932	77707227546
100	-20	324,6	66.867,600	258,5877027	Válido	238,5877	1,319508	314,8183612	334,8183612	3,09243E+12	62,6932	49326446657
100	-20	588,7	121.272,200	348,2415828	Válido	328,24158	1,319508	433,1173652	453,1173652	1,52415E+13	62,6932	2,43113E+11
100	-20	318,2	65.549,200	256,02578	Válido	236,02578	1,319508	311,4378838	331,4378838	2,92993E+12	62,6932	46734409622
200	-20	117	24.102,000	155,2481884	Válido	135,24819	1,515717	204,9979197	224,9979197	3,62032E+11	62,6932	5774665494
200	-20	234	48.204,000	219,5540936	Válido	199,55409	1,515717	302,4674455	322,4674455	2,53159E+12	62,6932	40380598812
200	-20	179	36.874,000	192,0260399	Válido	172,02604	1,515717	260,7427185	280,7427185	1,20521E+12	62,6932	19223856169
200	-20	175	36.050,000	189,8683755	Válido	169,86838	1,515717	257,4723108	277,4723108	1,1315E+12	62,6932	18048130242
200	-20	162	33.372,000	182,6800482	Válido	162,68005	1,515717	246,5768441	266,5768441	9,1151E+11	62,6932	14539216745
200	-20	166	34.196,000	184,921605	Válido	164,92161	1,515717	249,9744089	269,9744089	9,76063E+11	62,6932	15568877900
200	-20	162	33.372,000	182,6800482	Válido	162,68005	1,515717	246,5768441	266,5768441	9,1151E+11	62,6932	14539216745
200	-20	179	36.874,000	192,0260399	Válido	172,02604	1,515717	260,7427185	280,7427185	1,20521E+12	62,6932	19223856169
200	-20	199	40.994,000	202,4697508	Válido	182,46975	1,515717	276,5724242	296,5724242	1,61825E+12	62,6932	25812135973
200	-20	239	49.234,000	221,8873588	Válido	201,88736	1,515717	306,0040143	326,0040143	2,68309E+12	62,6932	42797182758
200	-20	112	23.072,000	151,8947004	Válido	131,8947	1,515717	199,9149824	219,9149824	3,1932E+11	62,6932	5093382330
200	-20	236	48.616,000	220,4903626	Válido	200,49036	1,515717	303,886564	323,886564	2,59154E+12	62,6932	41336819237

specimen width W, mm	test W, mm temperature centigrade	fracture resistance Jo, N/mm	E*Jc	Raiz(E*Jc)	Limite	Jc - 20	Conv Pol	Mult	Mult + 20	Kjc-20 ^{5,0}	r-0,3068	Kjc-20 ⁵ / r - 0,3068	
200	-20	125	25.750,000	160,4680654	Válido	140,46807	1,515717	212,9097737	232,9097737	4,375E+11	62,6932	6978427232	
200	-20	168	34.608,000	186,0322553	Válido	166,03226	1,515717	251,6578399	271,6578399	1,00937E+12	62,6932	16100222754	
200	-20	187	38.522,000	196,2702219	Válido	176,27022	1,515717	267,1756955	287,1756955	1,3614E+12	62,6932	21715223580	
					Válidos	66						Somatoria	1,624E+12
					Censurados	40						Somatoria ^{1/5}	276,768993
										K0	296,768993		
										Kjc Médio	272,5240292		
											242,5240292		
											3,464628989		
										Ln	1,242605553		
										T-T0	65,39833026		