

Steel Wire Rope - Full Technical Data

Diameter, weight per metre and minimum breaking load for every construction we supply.

6 sections - 28 tables - 484 data points | GT-WIRE-ROPE | Rev 1.0

Important - read first

This document is provided for selection guidance only. Values are nominal and subject to manufacturing tolerance. Chemical resistance and load data depend on the exact medium, concentration, temperature and support conditions of your application. Confirm the final specification with us before ordering.

28 constructions, 484 diameter and load data points, from 1 mm to 60 mm. Values follow GB/T 20118-2006 unless stated otherwise.

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1 . How to read this document

- Find the construction you need - for example 6x36 IWRC, or 35x7 rotation resistant.
- Match the diameter to the minimum breaking load you require. Weight per metre is given so you can calculate rope mass and freight.
- Two wire grades are listed where available: 1770 MPa and 1960 MPa. The higher grade gives a greater breaking load at the same diameter.
- Surface finish is bright or galvanized. Specify galvanized for outdoor or corrosive service.
- MBL is the minimum breaking load of the rope as a whole, before termination efficiency. Apply your own safety factor on top.

2 . Standard 6-strand ropes

6x19 Filler Compacted FC

Diameter 14 - 48 mm | GB/T 20118-2006 | 18 sizes

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
14	0.7	114	11677	127	12930
16	0.92	150	15252	166	16889
18	1.16	189	19303	210	21375
20	1.44	234	23831	259	26389

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
26	2.43	395	40274	437	44598
28	2.82	458	46709	507	51723
30	3.23	526	53620	582	59376
32	3.68	598	61008	662	67556
34	4.15	675	68872	748	76265
36	4.65	757	77213	838	85501
38	5.18	843	86030	934	95265
40	5.74	935	95325	1035	105557
42	6.33	1030	105095	1141	116377
44	6.95	1131	115343	1252	127724
46	7.6	1236	126067	1369	139600
48	8.27	1346	137268	1490	152003

6x19 Filler Compacted IWRC

Diameter 14 - 48 mm | GB/T 20118-2006 | 18 sizes

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
14	0.78	124	12597	137	13949
16	1.02	161	16453	179	18219
18	1.3	204	20824	226	23059
20	1.6	252	25708	279	28468
22	1.94	305	31107	338	34447
24	2.3	363	37020	402	40994
26	2.7	426	43448	472	48111
28	3.14	494	50389	547	55798
30	3.6	567	57845	628	64054
32	4.1	645	65814	715	72879
34	4.62	728	74298	807	82274
36	5.18	817	83296	904	92238
38	5.78	910	92809	1008	102771
40	6.4	1008	102835	1116	113874
42	7.06	1112	113376	1231	125546
44	7.74	1220	124431	1351	137788
46	8.46	1333	136000	1476	150598
48	9.22	1452	148083	1608	163979

6x19 Filler IWRC

Diameter 14 - 48 mm | GB/T 20118-2006 | 18 sizes

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
14	0.78	124	12597	137	13949
16	1.02	161	16453	179	18219
18	1.3	204	20824	226	23059
20	1.6	252	25708	279	28468
22	1.94	305	31107	338	34447

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
26	2.7	426	43448	472	48111
28	3.14	494	50389	547	55798
30	3.6	567	57845	628	64054
32	4.1	645	65814	715	72879
34	4.62	728	74298	807	82274
36	5.18	817	83296	904	92238
38	5.78	910	92809	1008	102771
40	6.4	1008	102835	1116	113874
42	7.06	1112	113376	1231	125546
44	7.74	1220	124431	1351	137788
46	8.46	1333	136000	1477	150598
48	9.22	1452	148083	1608	163979

6x19 Sealed Compacted FC

Diameter 10 - 42 mm | GB/T 20118-2006 | 19 sizes

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
10	0.36	58.4	5957	64.7	6597
11	0.43	70.7	7208	78.3	7982
12	0.52	84.1	8579	93.1	9500
13	0.61	98.7	10068	109	11149
14	0.7	114	11677	127	12930
16	0.92	150	15252	166	16889
18	1.16	189	19303	210	21375
20	1.44	234	23831	259	26389
22	1.74	283	28835	313	31931
24	2.07	336	34317	373	38000
26	2.43	395	40274	437	44598
28	2.82	458	46709	507	51723
30	3.23	526	53620	582	59376
32	3.68	598	61008	662	67556
34	4.15	675	68872	748	76265
36	4.65	757	77213	838	85501
38	5.18	843	86030	934	95265
40	5.74	935	95325	1035	105557
42	6.33	1030	105095	1141	116377

6x19 Sealed Compacted IWRC

Diameter 10 - 42 mm | GB/T 20118-2006 | 19 sizes

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
10	0.4	63	6427	69.8	7117
11	0.48	76.2	7776	84.4	8611
12	0.58	90.7	9255	100	10248
13	0.68	106	10862	118	12027

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
16	1.02	161	16453	179	18219
18	1.3	204	20824	226	23059
20	1.6	252	25708	279	28468
22	1.94	305	31107	338	34447
24	2.3	363	37020	402	40994
26	2.7	426	43448	472	48111
28	3.14	494	50389	547	55798
30	3.6	567	57845	628	64054
32	4.1	645	65814	715	72879
34	4.62	728	74298	807	82274
36	5.18	817	83296	904	92238
38	5.78	910	92809	1008	102771
40	6.4	1008	102835	1116	113874
42	7.06	1112	113376	1231	125546

6x19 Sealed FC

Diameter 10 - 42 mm | GB/T 20118-2006 | 19 sizes

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
10	0.36	58.4	5957	64.7	6597
11	0.43	70.7	7209	78.3	7982
12	0.52	84.1	8579	93.1	9500
13	0.61	98.7	10068	109	11149
14	0.7	115	11677	127	12930
16	0.92	150	15252	166	16889
18	1.16	189	19303	210	21375
20	1.44	234	23831	259	26389
22	1.74	283	28835	313	31931
24	2.07	336	34317	373	38000
26	2.43	395	40274	437	44598
28	2.82	458	46709	507	51723
30	3.23	526	53620	582	59376
32	3.68	598	61008	662	67557
34	4.15	675	68872	748	76265
36	4.65	757	77213	838	85501
38	5.18	843	86030	934	95265
40	5.74	935	95235	1035	105557
42	6.33	1030	105095	1141	116377

6x19 Sealed IWRC

Diameter 10 - 42 mm | GB/T 20118-2006 | 20 sizes

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
10	0.4	63	6427	69.8	7117
11	0.48	76.2	7776	84.4	8611
12	0.58	90.7	9255	101	10248

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
14	0.78	124	12597	137	13949
15	0.9	142	14461	157	16013
16	1.02	161	16453	179	18219
18	1.3	204	20824	226	23059
20	1.6	252	25708	279	28468
22	1.94	305	31107	338	34447
24	2.3	363	37020	402	40994
26	2.7	426	43448	472	48111
28	3.14	494	50389	547	55798
30	3.6	567	57845	628	64054
32	4.1	645	65814	715	72879
34	4.62	728	74298	807	82274
36	5.18	817	83296	904	92238
38	5.78	910	92809	1008	102771
40	6.4	1008	102835	1116	113874
42	7.06	1112	113376	1231	125546

6x36 Compacted FC

Diameter 8 - 60 mm | GB/T 20118-2006 | 27 sizes

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
8	0.24	37.4	3813	41.4	4222
9	0.3	47.3	4825	52.4	5343
10	0.37	58.4	5957	64.7	6597
11	0.44	70.7	7208	78.3	7982
12	0.53	84.1	8579	93.1	9500
14	0.72	114	11677	127	12930
16	0.94	150	15252	166	16889
18	1.19	189	19303	210	21375
20	1.47	234	23831	259	26389
22	1.78	283	28835	313	31931
24	2.11	336	34317	373	38000
26	2.48	395	40274	437	44598
28	2.88	458	46709	507	51723
30	3.3	526	53620	582	59376
32	3.76	598	61008	662	67556
34	4.24	675	68872	748	76265
36	4.76	757	77213	838	85501
38	5.3	843	86030	934	95265
40	5.87	935	95325	1035	105557
42	6.47	1030	105095	1141	116377
44	7.11	1131	115343	1252	127724
46	7.77	1236	126067	1369	139600
48	8.46	1346	137268	1490	152003

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
52	9.92	1579	161099	1749	178392
56	11.5	1832	186837	2020	206893
60	13.2	2103	214481	2328	237504

6x36 Compacted IWRC

Diameter 12 - 36 mm | GB/T 20118-2006 | 18 sizes

Dia (mm)	Weight (kg/m)	MBL (kN)	MBL (kg)
12	0.68	112	124
13	0.79	131	147
14	0.93	153	169
15	1.06	176	194
16	1.19	198	219
18	1.52	250	277
19	1.68	275	305
20	1.85	307	340
22	2.26	370	410
24	2.74	447	492
25	2.93	481	532
26	3.14	520	581
28	3.68	604	663
30	4.21	689	763
32	4.75	777	861
34	5.45	891	980
35	5.71	933	1033
36	6.09	992	1099

6x36 FC

Diameter 8 - 48 mm | GB/T 20118-2006 | 26 sizes

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
8	0.24	37.4	3813	41.4	4222
9	0.3	47.3	4825	52.4	5343
10	0.37	58.4	5957	64.7	6597
11	0.44	70.7	7209	78.3	7982
12	0.53	84.1	8579	93.1	9500
13	0.62	98.7	10068	109	11149
14	0.72	115	11677	127	12930
15	0.83	131	13405	146	14844
16	0.94	150	15252	166	16889
18	1.19	189	19303	210	21375
19	1.33	211	21507	234	23816
20	1.47	234	23831	259	26389
22	1.78	283	28835	313	31931
24	2.11	336	34317	373	38000

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
28	2.88	458	46709	507	51723
30	3.3	526	53620	582	59376
32	3.76	598	61008	662	67557
34	4.24	675	68872	748	76265
36	4.76	757	77213	838	85501
38	5.3	843	86030	934	95265
40	5.87	935	95325	1035	105557
42	6.47	1030	105095	1141	116377
44	7.11	1131	115343	1252	127724
46	7.77	1236	126067	1369	139600
48	8.46	1346	137268	1490	152003

6x36 IWRC

Diameter 8 - 44 mm | GB/T 20118-2006 | 23 sizes

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
8	0.26	40.3	4113	44.7	4555
9	0.33	51	5206	56.5	5764
10	0.41	63	6427	69.8	7117
11	0.5	76.2	7776	84.4	8611
12	0.59	90.7	9255	101	10248
13	0.69	107	10862	118	12028
14	0.8	124	12597	137	13949
16	1.05	161	16453	179	18219
18	1.33	204	20824	226	23059
19	1.48	228	23202	252	25692
20	1.64	252	25708	279	28468
22	1.98	305	31107	338	34447
24	2.36	363	37020	402	40994
26	2.77	426	43448	472	48111
28	3.21	494	50389	547	55798
30	3.68	567	57845	628	64054
32	4.19	645	65814	715	72879
34	4.73	728	74298	807	82274
36	5.3	817	83296	904	92238
38	5.91	910	92809	1008	102771
40	6.54	1008	102835	1116	113874
42	7.22	1112	113376	1231	125546
44	7.92	1220	124431	1351	137788

6x36 Stainless Steel - 1570 MPa

Diameter 8 - 32 mm | GB/T 20118-2006 | 15 sizes

Dia (mm)	Weight (kg/m)	MBL (kN)	MBL (kg)
8	0.28	35.8	3651
9	0.35	45.3	4620

Dia (mm)	Weight (kg/m)	MBL (kN)	MBL (kg)
11	0.54	67.6	6895
12	0.62	80.5	8211
14	0.84	110	11169
16	1.1	143	14596
18	1.39	181	18462
20	1.72	224	22848
22	2.16	271	27642
24	2.48	322	32844
26	2.76	378	38515
28	3.37	438	44676
30	3.87	503	51306
32	4.41	572	58344

6x37 FC

Diameter 12 - 48 mm | GB/T 20118-2006 | 20 sizes

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
12	0.5	75.2	7669	83.3	8492
13	0.59	88.2	9000	97.7	9967
14	0.68	102	10438	113	11559
16	0.89	134	13634	148	15098
18	1.12	169	17256	187	19108
20	1.38	209	21303	231	23590
22	1.68	253	25777	280	28544
24	1.99	301	30677	333	33970
26	2.34	353	36003	391	39868
28	2.71	409	41755	453	46237
30	3.11	470	47933	520	53078
32	3.54	535	54537	592	60391
34	4	604	61567	668	68176
36	4.48	677	69024	749	76433
38	5	754	76906	835	85161
40	5.54	835	85214	925	94362
42	6.1	921	93949	1020	104034
44	6.7	1011	103110	1119	114178
46	7.32	1105	112696	1224	124794
48	7.97	1203	122709	1332	135881

6x37 IWRC

Diameter 12 - 48 mm | GB/T 20118-2006 | 20 sizes

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
12	0.55	81.3	8293	90	9183
13	0.64	95.4	9733	106	10777
14	0.75	111	11288	123	12499

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
18	1.23	183	18659	203	20662
20	1.52	226	23036	250	25509
22	1.84	273	27874	302	30866
24	2.2	325	33173	360	36734
26	2.58	382	38932	423	43111
28	2.99	443	45152	490	49999
30	3.43	508	51833	563	57397
32	3.9	578	58974	640	65305
34	4.4	653	66576	723	73723
36	4.94	732	74639	810	82651
38	5.5	815	83163	903	92090
40	6.1	903	92147	1000	102039
42	6.72	996	101592	1103	112498
44	7.38	1093	111498	1211	123467
46	8.06	1195	121865	1323	134946
48	8.78	1301	132692	1441	146936

6x7

Diameter 2 - 40 mm | GB/T 20118-2006 | 23 sizes

Dia (mm)	Weight (kg/m)	MBL (kN)	MBL (kg)
2	0.01	2.35	239
3	0.03	5.29	539
4	0.06	9.4	959
5	0.09	14.7	1498
6	0.13	21.2	2157
7	0.17	28.8	2937
8	0.22	37.6	3836
9	0.27	47.6	4855
10	0.34	58.8	5993
11	0.42	71.1	7252
12	0.51	84.6	8631
14	0.68	115	11748
16	0.88	150	15344
18	1.1	190	19420
20	1.36	235	23975
22	1.61	284	29010
24	1.96	338	34525
26	2.28	397	40518
28	2.61	461	46992
30	2.98	529	53945
32	3.53	602	61377
36	4.47	762	77681
40	5.52	940	95902

3 . Rotation-resistant ropes

18x7 Rotation Resistant - 1570 MPa

Diameter 6 - 22 mm | GB/T 20118-2006 | 13 sizes

Dia (mm)	Weight (kg/m)	MBL (kN)	MBL (kg)
6	0.14	18.5	1887
8	0.26	33	3366
9	0.32	41.7	4253
10	0.4	51.5	5253
11	0.5	62.3	6354
12	0.58	74.2	7568
13	0.68	87.1	8884
14	0.8	101	10302
16	1.04	132	13464
18	1.32	167	17034
19	1.44	186	18972
20	1.62	206	21012
22	2.04	249	25398

19x7 Rotation Resistant Compacted

Diameter 12 - 30 mm | GB/T 20118-2006 | 12 sizes

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
12	0.63	91.7	9349	102	10388
13	0.74	108	10972	120	12191
14	0.86	125	12725	139	14139
15	0.99	143	14608	159	16231
16	1.13	163	16621	181	18467
18	1.43	206	21035	229	23373
20	1.76	255	25970	283	28855
22	2.13	308	31423	342	34915
24	2.53	367	37396	407	41551
26	2.97	430	43889	478	48765
28	3.45	499	50901	554	56556
30	3.96	573	58432	637	64924

32x7 Rotation Resistant Compacted

Diameter 8 - 22 mm | GB/T 20118-2006 | 11 sizes

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
8	0.32	50	5100	55	5610
11	0.6	95	9690	105	10710
12	0.71	111	11322	123	12546
13	0.84	132	13464	146	14892
14	0.97	153	15606	169	17238
15	1.1	174	17748	193	19686

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
18	1.61	255	26010	282	28764
19	1.8	284	28968	315	32130
20	1.97	310	31620	344	35088
22	2.36	372	37944	412	42024

35x7 Rotation Resistant

Diameter 12 - 30 mm | GB/T 20118-2006 | 11 sizes

Dia (mm)	Weight (kg/m)	MBL (kN)	MBL (kg)
12	0.65	102	10363
13	0.77	119	12163
14	0.89	138	14106
16	1.16	181	18424
18	1.47	229	23318
20	1.82	282	28788
22	2.2	342	34834
24	2.62	406	41455
26	3.07	477	48652
28	3.56	553	56425
30	4.09	635	64774

35x7 Rotation Resistant Compacted

Diameter 12 - 30 mm | GB/T 20118-2006 | 12 sizes

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
12	0.7	115	11699	127	12961
13	0.82	135	13730	149	15212
14	0.95	156	15924	173	17642
15	1.09	179	18280	199	20252
16	1.24	204	20798	226	23043
18	1.57	258	26323	286	29163
20	1.94	319	32497	353	36004
22	2.35	386	39322	427	43565
24	2.79	459	46796	508	51846
26	3.28	538	54921	597	60847
28	3.8	624	63695	692	70568
30	4.37	717	73119	794	81009

37x7 Rotation Resistant Compacted

Diameter 14 - 32 mm | GB/T 20118-2006 | 16 sizes

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
14	0.95	154	15708	171	17442
15	1.09	177	18054	196	19992
16	1.25	203	20706	225	22950
18	1.58	257	26214	285	29070
19	1.78	290	29580	321	32742

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
21	2.15	349	35598	387	39474
22	2.37	385	39270	426	43452
23	2.56	416	42432	461	47022
24	2.81	457	46601	506	51612
25	3.1	504	51510	558	56916
26	3.3	537	54774	595	60690
28	3.8	618	63036	685	69870
29	4.1	667	68034	738	75276
30	4.45	724	73848	802	81804
32	4.96	806	82212	892	90984

4 . Spiral strand and 7-strand ropes

1x19 Spiral Strand

Diameter 1 - 26 mm | GB/T 20118-2006 | 22 sizes

Dia (mm)	Weight (kg/m)	MBL 1770 (kN)	MBL 1770 (kg)	MBL 1960 (kN)	MBL 1960 (kg)
1	0.005	0.93	95	1.03	105
1.2	0.007	1.34	136	1.48	151
1.5	0.01	2.09	213	2.32	236
1.8	0.016	3.01	307	3.33	340
2	0.02	3.72	379	4.12	420
2.3	0.026	4.92	501	5.44	555
2.5	0.03	5.81	592	6.43	656
3	0.05	8.36	853	9.26	944
4	0.08	14.9	1516	16.5	1678
5	0.12	23.2	2368	25.7	2622
6	0.18	33.5	3410	37	3776
7	0.24	45.5	4642	50.4	5140
8	0.32	59.5	6062	65.9	6713
9	0.4	75.3	7673	83.3	8496
10	0.5	92.9	9472	103	10489
11	0.6	112	11462	125	12692
12	0.71	134	13640	148	15105
14	0.97	182	18566	202	20559
16	1.27	238	24250	263	26853
19	1.79	335	34196	371	37866
22	2.4	450	45847	498	50768
26	3.35	628	64034	696	70908

1x19 Spiral Strand - 1570 MPa

Diameter 2 - 26 mm | GB/T 20118-2006 | 17 sizes

Dia (mm)	Weight (kg/m)	MBL (kN)	MBL (kg)
2	0.02	3.14	320
2.5	0.03	4.9	499

Dia (mm)	Weight (kg/m)	MBL (kN)	MBL (kg)
4	0.08	12.6	1284
5	0.12	19.6	1998
6	0.18	28.2	2875
7	0.24	34.8	3548
8	0.31	45.5	4639
9	0.4	57.6	5873
10	0.49	71.1	7250
11	0.59	86	8769
12	0.7	102	10401
14	0.96	139	14174
16	1.25	182	18558
19	1.76	212	21617
22	2.36	285	29061
26	3.3	398	40584

1x19 Spiral Strand Stainless Steel - 1570 MPa

Diameter 4 - 12 mm | GB/T 20118-2006 | 9 sizes

Dia (mm)	Weight (kg/m)	MBL (kN)	MBL (kg)
4	0.09	14.5	1479
5	0.14	23.9	2438
6	0.2	34.8	3550
7	0.27	48.2	4916
8	0.35	60.3	6151
9	0.44	73.5	7497
10	0.55	95.8	9772
11	0.66	110	11220
12	0.79	141	14382

7x19

Diameter 3 - 20 mm | GB/T 20118-2006 | 15 sizes

Dia (mm)	Weight (kg/m)	MBL (kN)	MBL (kg)
3	0.03	5.77	588
4	0.06	10.3	1045
5	0.1	16	1633
6	0.14	23.1	2352
7	0.19	31.4	3202
8	0.24	41	4182
9	0.31	51.9	5293
10	0.38	64.1	6535
11	0.46	77.5	7908
12	0.55	92.3	9411
13	0.64	108	11045
14	0.75	126	12809

Dia (mm)	Weight (kg/m)	MBL (kN)	MBL (kg)
20	1.52	256	26142

7x19 - 1570 MPa

Diameter 3 - 14 mm | GB/T 20118-2006 | 9 sizes

Dia (mm)	Weight (kg/m)	MBL (kN)	MBL (kg)
3	0.03	5	509
4	0.06	8.89	906
5	0.09	13.9	1417
6	0.13	20	2039
7	0.18	27.3	2783
8	0.24	35.6	3630
10	0.37	55.6	5669
12	0.54	80	8157
14	0.73	109	11114

7x7

Diameter 1 - 30 mm | GB/T 20118-2006 | 22 sizes

Dia (mm)	Weight (kg/m)	MBL (kN)	MBL (kg)
1	0.004	0.76	78
2	0.015	2.75	280
3	0.035	6.18	630
4	0.06	11	1120
5	0.1	17.2	1751
6	0.14	24.7	2521
7	0.19	33.7	3432
8	0.25	44	4483
9	0.31	55.6	5674
10	0.38	68.7	7004
11	0.47	83.1	8475
12	0.55	98.9	10087
13	0.65	116	11838
14	0.75	135	13729
16	0.98	176	17932
18	1.24	223	22696
20	1.54	275	28019
22	1.86	332	33903
24	2.21	396	40348
26	2.6	464	47353
28	3.01	538	54918
30	3.46	618	63044

7x7 Stainless Steel - 1570 MPa

Diameter 1 - 14 mm | GB/T 20118-2006 | 12 sizes

Dia (mm)	Weight (kg/m)	MBL (kN)	MBL (kg)
1	0.004	0.59	60
2	0.016	2.37	241
2.5	0.023	3.71	378
3	0.034	5.34	544
4	0.06	9.49	967
5	0.1	14.8	1509
6	0.14	21.4	2182
7	0.19	29.1	2967
8	0.24	38	3874
10	0.38	59.3	6046
12	0.55	85.4	8708
14	0.74	117	11930

5 . From MBL to safe working load

A working load limit is derived from the MBL by applying a safety factor. The factor depends on the application and the governing standard.

- Lifting and slinging: typically MBL / 5
- Mooring and general pulling: typically MBL / 4 to MBL / 5
- Static guying where no personnel are at risk: typically MBL / 3
- Terminations reduce capacity: a spliced eye or a swaged fitting does not reach 100 per cent of the rope MBL. Use the efficiency stated by the fitting supplier.

6 . Ordering information

- State construction (for example 6x36 IWRC), diameter, grade and surface (bright or galvanized).
- State the length and the packing: coil, wooden reel or cut lengths.
- State whether a breaking load certificate is required, and whether third-party testing is needed.
- Standards we work to: ISO 2408, EN 12385, ASTM A1023, GB/T 20118.