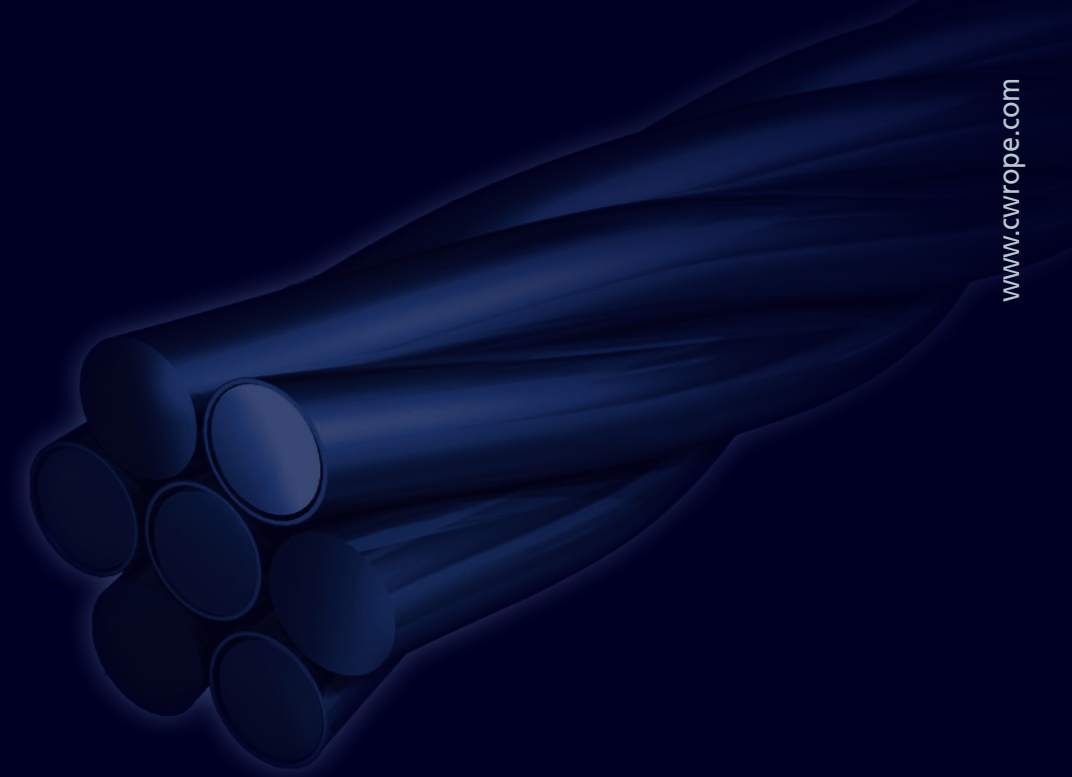




CHUNG woo

STEEL WIRE ROPE
HIGH CARBON WIRE
COLD DRAWN STEEL BAR

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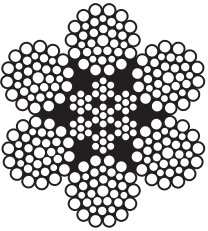
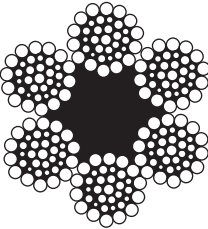
COLD DRAWN STEEL BAR

- 46 PRODUCT RANGE
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6×WS36+FC / IWRC

EN 12385-4

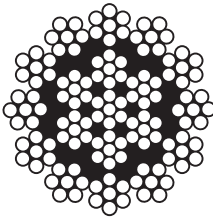
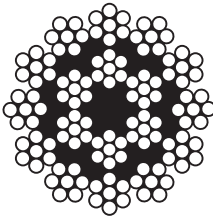


DIA (MM)	WEIGHT (KG/100M)		MBL (KN)			
			GRADE 1770		GRADE 1960	
	Fiber core	Steel core	Fiber core	Steel core	Fiber core	Steel core
8	23.5	26.2	37.4	40.3	41.4	44.7
9	29.7	33.1	47.3	51.0	52.4	56.5
10	36.7	40.9	58.4	63.0	64.7	69.8
12	52.8	58.9	84.1	90.7	93.1	100.0
14	71.9	80.2	114.0	124.0	127.0	137.0
16	94.0	105.0	150.0	161.0	166.0	179.0
18	119.0	133.0	189.0	204.0	210.0	226.0
20	147.0	164.0	234.0	252.0	259.0	279.0
22	178.0	198.0	283.0	305.0	313.0	338.0
24	211.0	236.0	336.0	363.0	373.0	402.0
26	248.0	276.0	395.0	426.0	437.0	472.0
28	288.0	321.0	458.0	494.0	507.0	547.0
30	330.3	368.1	526.0	567.0	582.0	628.0
32	376.0	419.0	598.0	645.0	662.0	715.0
34	424.3	472.8	675.0	728.0	748.0	807.0
36	476.0	530.0	757.0	817.0	838.0	904.0
38	529.9	590.6	843.0	910.0	934.0	1008.0
40	587.0	654.0	935.0	1010.0	1040.0	1120.0
42	647.4	721.5	1030.0	1112.0	1141.0	1231.0
44	711.0	792.0	1130.0	1220.0	1250.0	1350.0
46	776.6	865.4	1236.0	1333.0	1369.0	1477.0
48	846.0	942.0	1350.0	1450.0	1490.0	1610.0
50	917.5	1022.5	1460.0	1575.0	1617.0	1744.0
52	992.0	1110.0	1580.0	1700.0	1750.0	1890.0
54	1070.2	1192.6	1703.0	1837.0	1886.0	2035.0
56	1150.0	1280.0	1830.0	1980.0	2030.0	2190.0
58	1234.6	1375.9	1965.0	2120.0	2176.0	2347.0
60	1320.0	1470.0	2100.0	2270.0	2330.0	2510.0
62	1410.7	1572.2	2245.0	2422.0	2486.0	2682.0
64	1503.2	1675.3	2392.0	2581.0	2649.0	2858.0
68	1697.0	1891.2	2700.0	2914.0	2991.0	3226.0
70	1798.3	2004.1	2862.0	3088.0	3169.0	3419.0
72	1902.5	2120.3	3028.0	3267.0	3353.0	3617.0
74	2009.7	2239.7	3200.0	3451.0	3542.0	3820.9
77	2175.9	2425.0	3463.0	3736.0	3835.0	4137.0

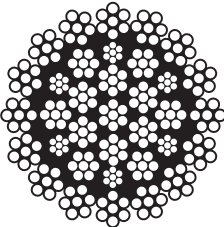
※ 6x41WS consturction start from 36mm size

18×7 / 19×7

EN 12385-4



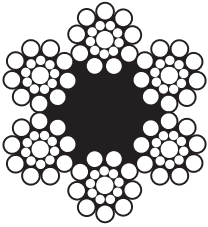
DIA (MM)	WEIGHT (KG/100M)		MBL (KN)	
	Fiber core	Steel core	GRADE 1960	GRADE 2160
4	6.0	7.0	10.29	11.34
5	9.0	10.0	16.07	17.71
6	14.0	14.0	23.14	25.51
7	19.0	20.0	31.50	34.72
8	24.0	26.0	41.14	45.34
9	31.0	33.0	52.07	57.39
10	38.0	40.0	64.29	70.85
11	46.0	49.0	77.79	85.73
12	55.0	58.0	92.57	102.02
13	65.0	68.0	108.65	119.73
14	75.0	79.0	126.00	138.86
16	98.0	103.0	164.58	181.37
18	124.0	130.0	208.29	229.55
20	153.0	160.0	257.15	283.39
22	185.0	194.0	311.15	342.90
24	220.0	231.0	370.30	408.08
26	258.0	271.0	434.59	478.93
28	299.0	314.0	504.02	555.45



35(W)x7

EN 12385-4

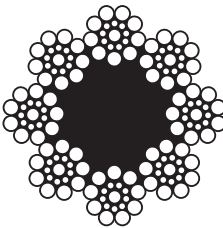
DIA (MM)	WEIGHT (KG/100M)	MBL (KN)	
		GRADE 1960	GRADE 2160
8	29.1	45.16	48.38
9	36.8	57.15	61.24
10	45.4	70.56	75.60
11	54.9	85.38	91.48
12	65.4	101.61	108.86
13	76.7	119.25	127.76
14	89.0	138.30	148.18
16	116.0	180.63	193.54
18	147.0	228.61	244.94
20	182.0	282.24	302.40
22	220.0	341.51	365.90
24	262.0	406.43	435.46
26	307.0	476.99	511.06
28	356.0	553.19	592.70
30	408.6	635.04	680.40
32	465.0	722.53	774.14
34	524.8	815.67	873.94
36	588.0	914.46	979.78
38	655.6	1018.89	1091.66



6xS19+FC FOR ELEVATOR

EN 12385-5

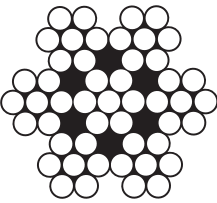
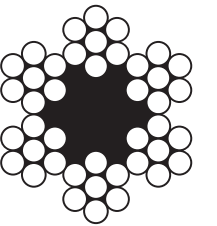
DIA (MM)	WEIGHT (KG/100M)	MBL (KN)		
		GRADE 1370/1770 (DUAL)	GRADE 1570	GRADE 1770
8	23.0	31.70	33.2	37.4
9	29.1	40.10	42.0	47.3
10	35.9	49.50	51.8	58.4
11	43.4	59.90	62.7	70.7
12	51.7	71.30	74.6	84.1
13	60.7	83.70	87.6	98.70
14	70.4	97.00	102.0	114.0
15	80.8	111.00	117.0	131.0
16	91.9	127.00	133.0	150.0



8xS19+FC FOR ELEVATOR

EN 12385-5

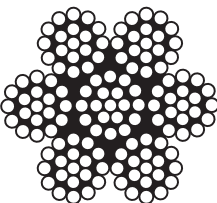
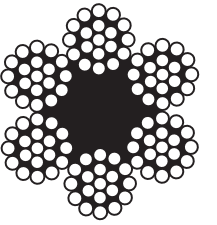
DIA (MM)	WEIGHT (KG/100M)	MBL (KN)		
		GRADE 1370/1770 (DUAL)	GRADE 1570	GRADE 1770
8	21.8	28.10	29.4	33.2
9	27.5	35.60	37.3	42.0
10	34.0	44.00	46.0	51.9
11	41.1	53.20	55.7	62.8
12	49.0	63.30	66.2	74.7
13	57.5	74.30	77.7	87.6
14	66.6	86.10	90.2	101.6
15	76.5	98.90	104.0	116.7
16	87.0	113.00	118.0	132.8



6x7+FC / 7x7

EN 12385-4

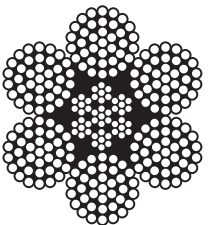
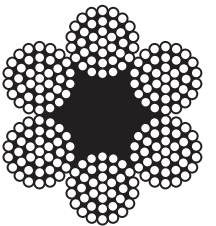
DIA (MM)	WEIGHT (KG/100M)		MBL (KN)			
			GRADE 1770		GRADE 1960	
	Fiber core	Steel core	Fiber core	Steel core	Fiber core	Steel core
2	1.38	1.54	2.35	2.54	2.60	2.81
3	3.11	3.46	5.29	5.72	5.86	6.33
4	5.52	6.14	9.40	10.20	10.40	11.30
5	8.63	9.60	14.70	15.90	16.30	17.60
6	12.40	13.80	21.20	22.90	23.40	25.30
7	16.90	18.80	28.80	31.10	31.90	34.50
8	22.10	24.60	37.60	40.70	41.60	45.00
9	27.90	31.10	47.60	51.50	52.70	57.00
10	34.50	38.40	58.80	63.50	65.10	70.40
11	41.70	46.50	71.10	76.90	78.70	85.10
12	49.70	55.30	84.60	91.50	93.70	101.00
13	58.30	64.90	99.30	107.00	110.00	119.00
14	67.60	74.60	115.00	125.00	128.00	138.00
16	88.30	98.30	150.00	163.00	167.00	180.00



6x19+FC / 7x19

EN 12385-4

DIA (MM)	WEIGHT (KG/100M)		MBL (KN)			
			GRADE 1770		GRADE 1960	
	Fiber core	Steel core	Fiber core	Steel core	Fiber core	Steel core
3	3.11	3.43	4.89	5.77	5.42	6.39
4	5.54	6.10	8.69	10.30	9.63	11.40
5	8.65	9.53	13.60	16.00	15.00	17.70
6	12.46	13.72	19.60	23.10	21.70	25.50
7	16.95	18.67	26.60	32.40	29.50	34.80
8	22.14	24.38	34.80	41.00	38.50	45.40
9	28.03	30.86	44.00	51.90	48.70	57.50
10	34.60	38.10	54.30	64.10	60.20	71.00
11	41.87	46.10	65.80	77.50	72.80	85.90
12	49.82	54.86	78.20	92.30	86.60	102.20
13	58.47	64.39	91.80	108.30	101.70	119.90
14	67.82	74.68	106.50	125.60	117.90	139.10
16	88.58	97.54	139.10	164.00	154.00	181.60



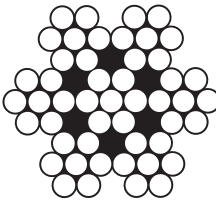
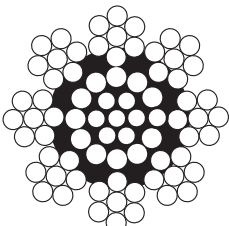
6x37+FC / IWRC

EN 12385-4

DIA (MM)	WEIGHT (KG/100M)		MBL (KN)	
	Fiber core	Steel core	Fiber core	Steel core
6	12.50	13.70	18.80	22.00
7	17.00	18.70	25.60	30.00
8	22.10	24.40	33.40	39.20
9	28.00	30.90	42.30	49.60
10	34.60	38.10	52.20	61.20
11	41.90	46.10	63.20	74.10
12	49.80	54.90	75.20	88.20
14	67.82	74.68	102.34	120.03
16	88.58	97.54	133.67	156.78
18	112.10	123.44	169.18	198.42
20	138.40	152.40	208.86	244.97
22	167.46	184.40	252.72	296.41
24	199.30	219.46	300.76	352.75
26	233.90	257.56	352.97	414.00
28	271.26	298.70	409.37	480.14
30	311.40	342.90	469.94	551.18
32	354.30	390.14	534.68	578.18

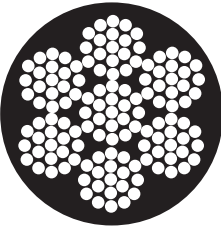
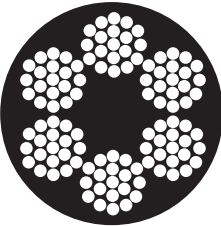
INNER CABLE FOR WINDOW REGULATOR

DIA (MM)	CONSTRUCTION	WEIGHT (KG/100M)	MBL (KN)
1.5	8X7+(1X19)	1.04	2.45
1.8	8X7+(1X19)	1.51	3.53
2.0	8X7+(1X19)	1.87	4.11
1.5	7X7	0.99	1.76
2.0	7X7	1.67	3.04



6×19+FC / 7×19 WITH COATING

EN 12385-4

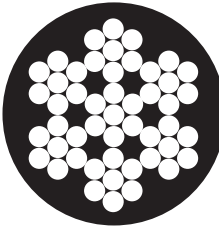
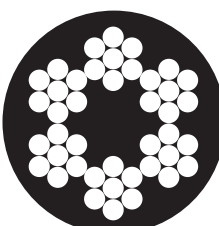


DIA (MM)	WEIGHT (KG/100M)		MBL (KN)			
			GRADE 1770		GRADE 1960	
	Fiber core	Steel core	Fiber core	Steel core	Fiber core	Steel core
3 - 4	3.94	4.26	4.89	5.77	5.42	6.39
3 - 5	4.79	5.11	4.89	5.77	5.42	6.39
4 - 5	6.69	7.25	8.69	10.30	9.63	11.40
4 - 6	7.73	8.29	8.69	10.30	9.63	11.40
5 - 6	10.16	11.04	13.60	16.00	15.00	17.70
5 - 7	11.38	12.26	13.60	16.00	15.00	17.70
6 - 8	15.78	17.04	19.60	23.10	21.70	25.50
6 - 9	17.38	18.64	19.60	23.10	21.70	25.50
8 - 10	26.74	28.98	34.80	41.00	38.50	45.40
10 - 12	40.63	44.13	54.30	64.10	60.20	71.00
12 - 14	57.44	62.48	78.20	92.30	86.60	102.20
14 - 16	77.17	84.03	106.50	125.60	117.90	139.10
16 - 18	99.81	108.77	139.10	164.00	154.00	181.60

※ Production of the coating material is PVC, PP, PE and UV stabilized is optional.

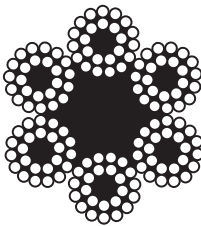
6×7+FC / 7×7 WITH COATING

EN 12385-4



DIA (MM)	WEIGHT (KG/100M)		MBL (KN)			
			GRADE 1770		GRADE 1960	
	Fiber core	Steel core	Fiber core	Steel core	Fiber core	Steel core
2 - 3	1.93	2.09	2.35	2.54	2.60	2.81
2 - 4	2.59	2.75	2.35	2.54	2.60	2.81
2 - 5	3.43	3.59	2.35	2.54	2.60	2.81
3 - 4	3.94	4.29	5.29	5.72	5.86	6.33
3 - 5	4.79	5.14	5.29	5.72	5.86	6.33
4 - 5	6.67	7.29	9.40	10.20	10.40	11.30
4 - 6	7.71	8.33	9.40	10.20	10.40	11.30
5 - 6	10.14	11.11	14.70	15.90	16.30	17.60
5 - 7	11.36	12.33	14.70	15.90	16.30	17.60
6 - 8	15.72	17.12	21.20	22.90	23.40	25.30
6 - 9	17.32	18.72	21.20	22.90	23.40	25.30
8 - 10	26.70	29.20	37.60	40.70	41.60	45.00
10 - 12	40.53	44.43	58.80	63.50	65.10	70.40

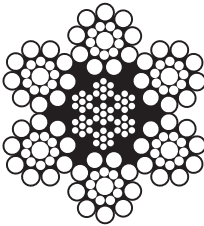
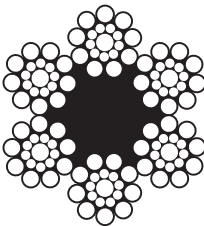
※ Production of the coating material is PVC, PP, PE and UV stabilized is optional.



6x24+7FC

DIN 3068

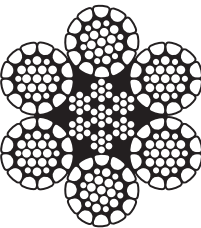
DIA (MM)	WEIGHT (KG/100M)	MBL (KN)
		GRADE 1770
8.0	20.36	31.72
9.0	25.77	40.14
10.0	31.82	49.56
11.0	38.50	59.97
12.0	45.82	71.37
13.0	53.78	83.76
14.0	62.37	97.14
15.0	71.60	111.51
16.0	81.46	126.87
17.0	91.96	143.23
18.0	103.1	160.57
19.0	114.9	178.91
20.0	127.3	198.24
21.0	140.3	218.56
22.0	154.0	239.87
24.0	183.3	285.47
25.0	198.9	309.75
26.0	215.1	335.03
28.0	249.5	388.55
30.0	286.4	446.04
32.0	325.8	507.49
34.0	367.8	572.91



6xS19+FC / IWRC

EN 12385-4

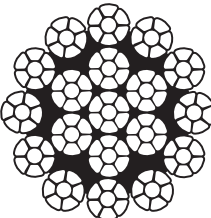
DIA (MM)	WEIGHT (KG/100M)		MBL (KN)			
			GRADE 1770		GRADE 1960	
	Fiber core	Steel core	Fiber core	Steel core	Fiber core	Steel core
6	12.90	14.40	21.00	22.70	23.30	25.10
7	17.60	19.60	28.60	30.90	31.70	34.20
8	23.00	25.60	37.40	40.30	41.40	44.70
9	29.10	32.40	47.30	51.00	52.40	56.50
10	35.90	40.00	58.40	63.00	64.70	69.80
12	43.30	57.60	84.10	90.70	93.10	100.00
14	70.40	78.40	114.00	124.00	127.00	137.00
16	91.90	102.00	150.00	161.00	166.00	179.00
18	116.00	130.00	189.00	204.00	210.00	226.00
20	144.00	160.00	234.00	252.00	259.00	279.00
22	174.00	194.00	283.00	305.00	313.00	338.00
24	207.00	230.00	336.00	363.00	373.00	402.00
26	243.00	270.00	395.00	426.00	437.00	472.00
28	281.00	314.00	458.00	494.00	507.00	547.00
30	323.10	360.00	526.00	567.00	582.00	628.00
32	368.00	410.00	598.00	645.00	662.00	715.00
34	415.00	462.40	675.00	728.00	748.00	807.00
36	465.00	518.00	757.00	817.00	838.00	904.00
38	518.40	577.60	843.00	910.00	934.00	1,008.0
40	574.00	640.00	935.00	1,010.0	1,040.0	1,120.0
42	633.28	705.60	1,030.0	1,112.0	1,141.0	1,231.0
44	695.00	774.00	1,130.0	1,220.0	1,250.0	1,350.0
46	759.64	846.40	1,236.0	1,333.0	1,369.0	1,477.0
48	827.00	922.00	1,350.0	1,450.0	1,490.0	1,610.0
50	897.50	1,000.0	1,460.0	1,575.0	1,617.0	1,744.0
52	971.00	1,080.0	1,580.0	1,700.0	1,750.0	1,890.0
54	1,046.8	1,166.4	1,703.0	1,837.0	1,886.0	2,035.0



6xWS36+IWRC COMPACTED

ASTM A 1023

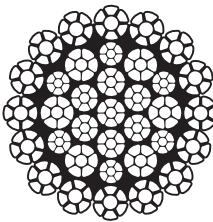
DIA (MM)	WEIGHT (KG/100M)	MBL (KN)	
		GRADE 1960	GRADE 2160
10	46.2	85.3	91.5
11	55.9	98.1	113
12	66.5	114	127
13	78.1	147	157
14	90.6	169	183
16	118.3	217	228
18	149.7	275	298
19	166.8	302	323
20	184.8	333	355
22	223.4	398	423
24	266.1	487	518
26	312.3	576	610
28	332.2	655	700
32	473.1	844	914
36	598.8	1060	1120



19x7 COMPACTED

ASTM A 1023

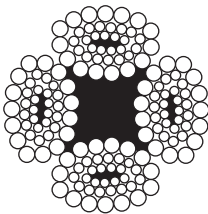
DIA (MM)	WEIGHT (KG/100M)	MBL (KN)	
		GRADE 1960	GRADE 2160
6	18.1	30.7	34.0
7	24.7	39.8	44.0
8	32.3	54.0	60.0
9	40.8	68.0	75.0
10	50.4	84.0	93.0
11	61.0	105	116
12	72.6	121	133
13	85.2	147	162
14	98.8	167	185
16	129.0	219	243
18	163.3	278	308
19	181.9	304	337
20	201.6	336	372
22	243.9	412	457
24	290.3	476	541



35(W)x7 COMPACTED

ASTM A 1023

DIA (MM)	WEIGHT (KG/100M)	MBL (KN)	
		GRADE 1960	GRADE 2160
10	49.7	87.6	98.3
11	60.1	105	118
12	71.6	124	140
13	84.0	144	162
14	97.4	168	188
16	127.2	224	251
18	161.0	274	308
19	179.4	307	344
20	198.8	341	382
22	240.5	415	466
24	286.3	491	555
26	336.0	588	660
28	389.6	676	758
32	508.9	873	980
36	644.1	1110	1232

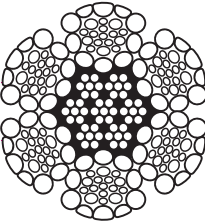


4xSES39+FC SWAGED

ASTM A 1023

DIA (MM)	WEIGHT (KG/100M)	MBL (KN)	
		GRADE 1770	GRADE 1960
8	26.30	51.8	56.0
10	41.10	63.9	69.2
12	59.18	89.0	96.5
14	80.56	125.7	136.3
16	105.2	163.8	177.5
18	133.2	208.7	225.6
20	164.4	256.0	277.5
22	198.9	299.0	324.0
24	236.7	356.0	385.4

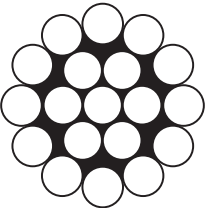
6×WS26 / 6×S19+IWRC SWAGED



DIA (MM)	Weight (KG/100M)	MBL (KN)
8	36.4	65.0
9	46.1	83.0
10	56.9	103.0
11	68.8	121.0
12	81.9	142.0
13	96.2	174.0
14	111.5	202.0
15	128.0	231.0
16	145.7	263.0
17	164.4	297.0
18	184.4	333.0

1×19 STAINLESS STEEL

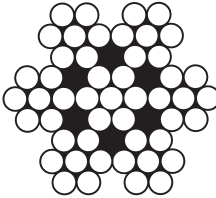
DIN 3053



DIA (MM)	WEIGHT (KG/100M)	MBL (KN)	
		AISI 304 GRADE 1770	AISI 316 GRADE 1570
1	0.50	0.93	0.82
1.5	1.11	2.09	1.85
2	1.98	3.72	3.30
2.5	3.10	5.81	5.15
3	4.46	8.36	7.42
4	7.93	14.90	13.20
5	12.40	23.20	20.60
6	17.80	33.50	30.00
7	24.30	45.50	40.40
8	21.70	59.50	52.80
10	49.50	93.00	82.50

7×7 STAINLESS STEEL

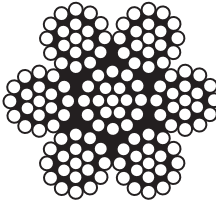
EN 12385-4



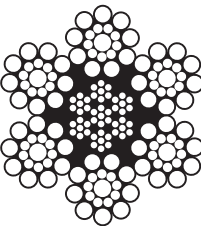
DIA (MM)	WEIGHT (KG/100M)	MBL (KN)	
		AISI 304 GRADE 1770	AISI 316 GRADE 1570
1	0.38	0.69	0.61
1.5	0.86	1.55	1.37
2	1.54	2.75	2.44
2.5	2.40	4.29	3.81
3	3.46	6.18	5.48
4	6.14	10.99	9.75
5	9.60	17.20	15.20
6	13.80	24.70	21.90
7	18.80	33.70	29.80
8	24.60	40.70	36.10
10	38.40	63.50	56.40
12	55.30	91.50	81.20

7×19 STAINLESS STEEL

EN 12385-4



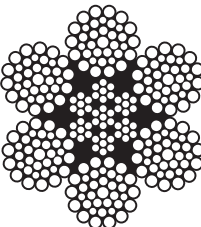
DIA (MM)	WEIGHT (KG/100M)	MBL (KN)	
		AISI 304 GRADE 1770	AISI 316 GRADE 1570
2	1.60	2.56	2.27
2.5	2.40	4.00	3.55
3	3.40	5.77	5.12
4	6.10	10.30	9.09
5	9.50	16.00	14.20
6	13.80	23.10	20.50
7	18.70	31.40	27.80
8	24.30	41.00	36.40
10	38.10	64.10	56.80
12	54.80	92.30	81.80
14	74.60	125.60	111.40
16	97.40	164.00	145.50



6xS19+IWRC STAINLESS STEEL

EN 12385-4

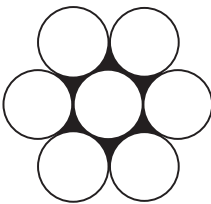
DIA (MM)	WEIGHT (KG/100M)	MBL (KN)	
		AISI 304 GRADE 1770	AISI 316 GRADE 1570
10	42.60	63.00	55.90
11	51.55	76.20	67.60
12	61.34	90.70	80.50
13	71.99	106.00	94.50
14	83.50	124.00	110.00
16	109.1	161.00	143.00
18	138.0	204.00	181.00



6xWS36+IWRC STAINLESS STEEL

EN 12385-4

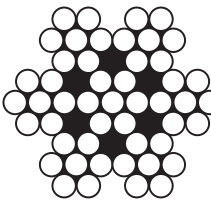
DIA (MM)	WEIGHT (KG/100M)	MBL (KN)	
		AISI 304 GRADE 1770	AISI 316 GRADE 1570
10	40.90	63.00	55.90
12	58.90	90.70	80.50
14	80.16	124.00	110.00
16	104.7	161.00	143.00
18	132.5	204.00	181.00
20	163.6	252.00	224.00
22	198.0	305.00	271.00
24	236.0	363.00	322.00
26	276.0	426.00	378.00
28	321.0	494.00	438.00



1x7 GUY STRAND CLASS A

ASTM A 475

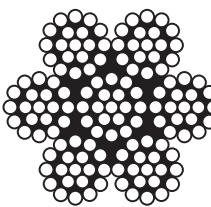
DIA (INCH)	DIA OF WIRE (INCH)	WEIGHT (LB/1000FT)	MBL (LB)
			EHS
7/32 "	0.072 "	98	5,400
1/4 "	0.080 "	121	6,650
9/32 "	0.093 "	164	8,950
5/16 "	0.104 "	205	11,200
3/8 "	0.120 "	273	15,400
7/16 "	0.145 "	399	20,800
1/2 "	0.165 "	517	26,900



7x7 GALVANIZED CABLE

MIL DTS-83420

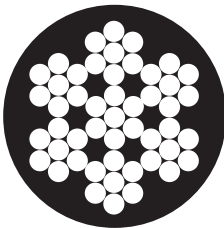
DIA (INCH)	WEIGHT (LB/1000FT)	MBL (SHORT TONS)
1/16 "	7.5	0.24
5/64 "	11.0	0.33
3/32 "	16.0	0.46
1/8 "	28.0	0.85
5/32 "	43.0	1.30
3/16 "	62.0	1.85
7/32 "	83.0	2.40
1/4 "	106.0	3.05
9/32 "	134.0	3.70
5/16 "	167.0	4.60
3/8 "	236.0	6.55



7x19 GALVANIZED CABLE

MIL DTS-83420

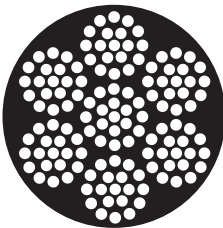
DIA (INCH)	WEIGHT (LB/1000FT)	MBL (SHORT TONS)
3/32 "	17.0	0.50
1/8 "	29.0	1.00
5/32 "	45.0	1.40
3/16 "	65.0	2.10
7/32 "	86.0	2.80
1/4 "	110.0	3.50
9/32 "	139.0	4.00
5/16 "	173.0	4.90
3/8 "	243.0	7.20



7×7 GALVANIZED CABLE WITH COATING MIL DTS-83420

DIA (INCH)	WEIGHT (LB/1000FT)	MBL (SHORT TONS)
1/16" -3/32"	1.09	0.24
1/16" -1/8"	1.51	0.24
3/32" -1/8"	2.13	0.46
3/32" -3/16"	3.31	0.46
1/8" -3/16"	4.17	0.85
3/16" -1/4"	8.29	1.85
1/4" -5/16"	13.53	3.05
5/16" -3/8"	20.48	4.60

※ Production of the coating material is PVC, PP, PE and UV stabilized is optional.



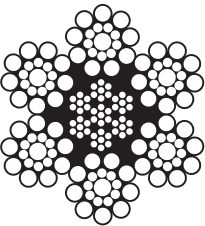
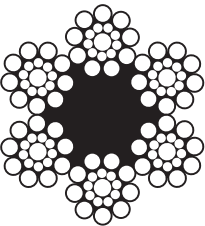
7×19 GALVANIZED CABLE WITH COATING MIL DTS-83420

DIA (INCH)	WEIGHT (LB/1000FT)	MBL (SHORT TONS)
3/32" -1/8"	2.23	0.50
3/32" -3/16"	3.41	0.50
1/8" -3/16"	4.27	1.00
3/16" -1/4"	8.59	2.10
1/4" -5/16"	13.93	3.50
5/16" -3/8"	21.08	4.90

※ Production of the coating material is PVC, PP, PE and UV stabilized is optional.

6×S19 / 6×FI25 / 6×WS26+FC / IWRC

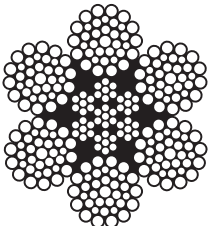
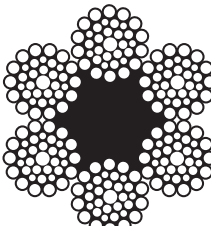
FS-RR-W-410 / API-9A



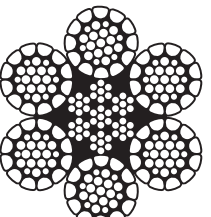
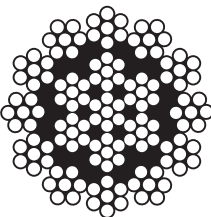
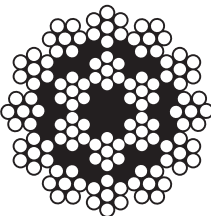
DIA (INCH)	WEIGHT (LB/FT)		MBL (SHORT TONS)			
			IPS		EIPS	
	Fiber core	Steel core	Fiber core	Steel core	Fiber core	Steel core
1/4"	0.11	0.12	2.74	2.9	3.01	3.4
5/16"	0.16	0.18	4.26	4.6	4.69	5.3
3/8"	0.24	0.26	6.10	6.6	6.71	7.6
7/16"	0.32	0.35	8.27	8.9	9.10	10.2
1/2"	0.42	0.46	10.70	11.5	11.80	13.3
9/16"	0.53	0.58	13.50	14.5	14.90	16.8
5/8"	0.66	0.72	16.70	17.7	18.40	20.6
3/4"	0.95	1.04	23.80	25.6	26.20	29.4
7/8"	1.29	1.41	32.20	34.6	35.40	39.8
1"	1.68	1.85	41.80	44.9	46.00	51.7
1 1/8"	2.13	2.34	52.60	56.5	57.90	65.0
1 1/4"	2.63	2.89	64.60	69.4	71.10	79.9
1 3/8"	3.18	3.49	77.70	83.5	85.50	96.0
1 1/2"	3.78	4.16	92.00	98.9	101.0	114.0
1 5/8"	4.44	4.88	107.0	115.0	118.0	132.0
1 3/4"	5.15	5.66	124.0	133.0	136.0	153.0
1 7/8"	5.91	6.49	141.0	152.0	155.0	174.0
2"	6.73	7.39	160.0	172.0	176.0	198.0
2 1/8"	7.60	8.34	179.0	192.0	197.0	221.0
2 1/4"	8.52	9.35	200.0	215.0	220.0	247.0
2 1/2"	10.50	11.60	244.0	262.0	269.0	302.0
3"	15.10	16.60	344.0	370.0	378.0	425.0

6×WS36+FC / IWRC

FS-RR-W-410 / API-9A



DIA (INCH)	WEIGHT (LB/FT)		MBL (SHORT TONS)			
			IPS		EIPS	
	Fiber core	Steel core	Fiber core	Steel core	Fiber core	Steel core
5/16"	0.16	0.18	4.26	4.6	4.69	5.3
3/8"	0.24	0.26	6.10	6.6	6.71	7.6
7/16"	0.32	0.35	8.27	8.9	9.10	10.2
1/2"	0.42	0.46	10.70	11.5	11.80	13.3
9/16"	0.53	0.58	13.50	14.5	14.90	16.8
5/8"	0.66	0.72	16.70	17.7	18.40	20.6
3/4"	0.95	1.04	23.80	25.6	26.20	29.4
7/8"	1.29	1.41	32.20	34.6	35.40	39.8
1"	1.68	1.85	41.80	44.9	46.00	51.7
1 1/8"	2.13	2.34	52.60	56.5	57.90	65.0
1 1/4"	2.63	2.89	64.60	69.4	71.10	79.9
1 3/8"	3.18	3.49	77.70	83.5	85.50	96.0
1 1/2"	3.78	4.16	92.00	98.9	101.0	114.0
1 5/8"	4.44	4.88	107.0	115.0	118.0	132.0
1 3/4"	5.15	5.66	124.0	133.0	136.0	153.0
1 7/8"	5.91	6.49	141.0	152.0	155.0	174.0
2"	6.73	7.39	160.0	172.0	176.0	198.0
2 1/8"	7.60	8.34	179.0	192.0	197.0	221.0
2 1/4"	8.52	9.35	200.0	215.0	220.0	247.0
2 1/2"	10.50	11.60	244.0	262.0	269.0	302.0
3"	15.10	16.60	344.0	370.0	378.0	425.0



18x7 / 19x7

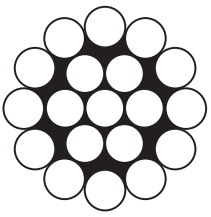
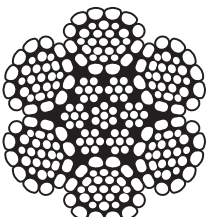
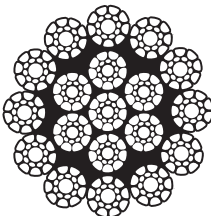
FS-RR-W-410 / API-9A

DIA (INCH)	WEIGHT (LBS/FT)		MBL (SHORT TONS)	
			IPS	EIPS
	Fiber core	Steel core	Fiber or Steel core	
1/4"	0.11	0.11	2.51	2.77
5/16"	0.17	0.18	3.90	4.30
3/8"	0.24	0.26	5.59	6.15
7/16"	0.33	0.35	7.58	8.33
1/2"	0.43	0.45	9.85	10.80
9/16"	0.55	0.57	12.40	13.60
5/8"	0.68	0.71	15.30	16.80
3/4"	0.97	1.02	21.80	24.00
7/8"	1.32	1.39	29.50	32.50
1"	1.73	1.82	38.30	42.20
1 1/8"	2.19	2.30	48.20	53.10
1 1/4"	2.70	2.84	59.20	65.10

6xWS36 COMPACTED

ASTM A1023

DIA (INCH)	WEIGHT (LB/FT)	MBL (SHORT TONS)	
		EIPS	EEIPS
3/8"	0.282	8.30	9.13
7/16"	0.383	11.20	12.30
1/2"	0.501	14.60	16.10
9/16"	0.634	18.50	20.40
5/8"	0.782	22.70	25.00
3/4"	1.127	32.40	35.60
7/8"	1.534	43.80	48.20
1"	2.003	56.90	62.60
1 1/8"	2.535	71.50	78.70
1 1/4"	3.130	87.90	96.70
1 3/8"	3.787	106.00	117.00



19xS19 COMPACTED

ASTM A1023

DIA (INCH)	WEIGHT (LB/FT)	MBL (SHORT TONS)	
		EIPS	EEIPS
5/8"	0.860	20.60	22.70
3/4"	1.240	29.40	32.40
7/8"	1.690	39.80	43.80
1"	2.210	51.70	56.90

6xWS26 / 6xS19+IWRC SWAGED

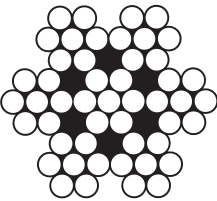
ASTM A1023

DIA (INCH)	WEIGHT (LB/FT)	MBL (SHORT TONS)
1/2"	0.550	15.50
9/16"	0.700	19.60
5/8"	0.870	24.20
3/4"	1.250	34.90

1x19 STAINLESS STEEL

MIL DTL-87161

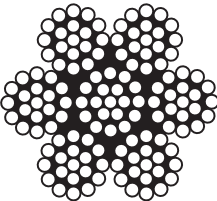
DIA (INCH)	WEIGHT (LB/1000FT)	MBL (SHORT TONS)
		AISI 304
1/16"	8.5	0.25
5/64"	14.0	0.40
3/32"	20.0	0.60
7/64"	27.0	0.80
1/8"	35.0	1.05
5/32"	55.0	1.65
3/16"	77.0	2.35
7/32"	102.0	3.15
1/4"	135.0	4.10
5/16"	210.0	6.25
3/8"	300.0	8.75



7×7 STAINLESS STEEL

MIL DTL-83420

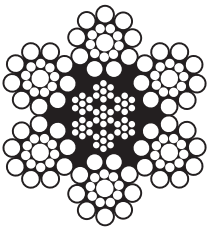
DIA (INCH)	WEIGHT (LB/1000FT)	MBL (SHORT TONS)	
		AISI 304	AISI 316
3/64 "	4.2	0.14	0.12
1/16 "	7.5	0.24	0.21
5/64 "	11	0.33	0.29
3/32 "	16	0.46	0.41
1/8 "	28	0.88	0.78
5/32 "	43	1.20	1.07
3/16 "	62	1.85	1.65
7/32 "	83	2.50	2.23
1/4 "	106	3.20	2.85
9/32 "	134	3.90	3.47
5/16 "	167	4.50	4.01
3/8 "	236	6.00	5.34



7×19 STAINLESS STEEL

MIL DTL-83420

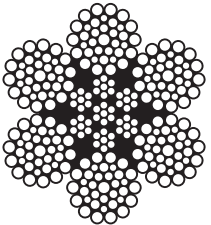
DIA (INCH)	WEIGHT (LB/1000FT)	MBL (SHORT TONS)	
		AISI 304	AISI 316
3/32 "	17	0.46	0.41
1/8 "	29	0.88	0.78
5/32 "	45	1.20	1.07
3/16 "	65	1.85	1.65
7/32 "	86	2.50	2.23
1/4 "	110	3.20	2.85
9/32 "	139	3.90	3.47
5/16 "	173	4.50	4.01
3/8 "	243	6.00	5.34



6×S19+IWRC STAINLESS STEEL

FS-RR-W-410

DIA (INCH)	WEIGHT (LB/FT)	MBL (SHORT TONS)	
		AISI 304	AISI 316
3/8 "	0.26	5.99	5.33
7/16 "	0.35	8.15	7.26
1/2 "	0.46	11.40	10.15
9/16 "	0.58	14.25	12.69
5/8 "	0.72	17.50	15.58
3/4 "	1.04	24.80	22.07
7/8 "	1.41	33.25	29.60
1 "	1.85	42.70	38.00
1 1/8 "	2.34	53.20	47.35



6×WS36 STAINLESS STEEL

FS-RR-W-410

DIA (INCH)	WEIGHT (LB/FT)	MBL (SHORT TONS)	
		AISI 304	AISI 316
3/8 "	0.26	5.99	5.25
7/16 "	0.35	8.15	7.26
1/2 "	0.46	11.40	10.15
9/16 "	0.58	14.25	12.69
5/8 "	0.72	17.50	15.58
3/4 "	1.04	24.80	22.07
7/8 "	1.41	33.25	29.60
1 "	1.85	42.70	38.00
1 1/8 "	2.34	53.20	47.35

CHEMICAL COMPOSITION (unit: wt %)

Classification	KS D 3510 SW-A/B/C	JIS G 3521 SW-A/B/C	DIN 17223 Pt 1		BS 5216 TYPE NS/HS	EN 10270-1 TYPE SL/SM/SH	ASTM A 227 CLASS I, II
			0.70 ~0.60mm	6.00 ~13.0mm			
Carbon (C)	0.24 ~ 0.86	0.24 ~ 0.86	0.40 ~ 0.85	0.55 ~ 0.85	0.40 ~ 0.85	0.35 ~ 1.00	0.45 ~ 0.85
Manganese(Mn)	0.30 ~ 0.90	0.30 ~ 0.90	0.30 ~ 0.60	0.30 ~ 1.00	0.30 ~ 1.00	0.50 ~ 1.20	0.30 ~ 1.30
Phosphorus(P)	0.035Max	0.035Max	0.040Max	0.040Max	0.040Max	0.035Max	0.040Max
Sulfur(S)	0.035Max	0.035Max	0.040Max	0.040Max	0.040Max	0.035Max	0.050Max
Silicon(Si)	0.15 ~ 0.35	0.15 ~ 0.35	0.35Max	0.35Max	0.35Max	0.10 ~ 0.30	0.15 ~ 0.35
Copper(Cu)	-	-	-	-	-	0.20Max	-

TORSION

Classification	Diameter	Specification
No. of Turns	0.70mm ~ 2.00mm	≥ 20 times
	2.01mm ~ 3.50mm	≥ 15 times
	3.51mm ~ 6.00mm	≥ 10 times
Fracture Shape	Perpendicular to the longitudinal axis of the test specimen	
Check Criteria	No Serious cracks, surface defects and partial torsion	

PACKING

Inner Dia. Of Coil		Dia. MM	Packing Unit (kg)			
INCH	MM		Coil	Carrier	Steel Reel	Z-2 Coil
12	300	0.50 ~ 0.63	50KG	-	400KG	250KG
		0.63 ~ 0.69	50KG	-	400KG	250KG
14	350	0.70 ~ 0.89	70KG	-	400KG	250KG
16	400	0.90 ~ 1.59	100KG	400KG	400KG	400KG
22	550	1.50 ~ 1.99	100KG	700KG	400KG	400KG
24	600	2.00 ~ 2.99	100KG	800KG	400KG	400KG
30	760	3.00 ~ 6.00	100KG	1000KG	-	-
32	820	5.50 ~ 12.50	100KG	1000KG	-	-

MECHANICAL PROPERTIES DIN 17223

Dia. MM	Tensile Strength (N/mm²)			
	CLASS A		CLASS B	
	MIN	MAX	MIN	MAX
0.50	-	-	2200	2470
0.53	-	-	2180	2450
0.56	-	-	2170	2430
0.60	-	-	2140	2400
0.63	-	-	2130	2380
0.65	-	-	2120	2370
0.70	-	-	2090	2350
0.75	-	-	2070	2320
0.80	-	-	2050	2300
0.85	-	-	2030	2280
0.90	-	-	2010	2260
0.95	-	-	2000	2240
1.00	1720	1970	1980	2220
1.05	1710	1950	1960	2200
1.10	1690	1940	1950	2190
1.20	1670	1910	1920	2160
1.25	1660	1900	1910	2140
1.30	1640	1890	1900	2130
1.40	1620	1860	1870	2100
1.50	1600	1840	1850	2080
1.60	1590	1820	1830	2050
1.70	1570	1800	1810	2030
1.80	1550	1780	1790	2010
1.90	1540	1760	1770	1990
2.00	1520	1750	1760	1970
2.10	1510	1730	1740	1960
2.25	1490	1710	1720	1930
2.40	1470	1690	1700	1910
2.50	1460	1680	1690	1890
2.60	1450	1660	1670	1880
2.80	1420	1640	1650	1850
3.00	1410	1620	1630	1830
3.20	1390	1600	1610	1810
3.40	1370	1580	1590	1780
3.60	1350	1560	1570	1760
3.80	1340	1540	1550	1740
4.00	1320	1520	1530	1730
4.25	1310	1500	1510	1700
4.50	1290	1490	1500	1680
4.75	1270	1470	1480	1670
5.00	1260	1450	1460	1650
5.30	1240	1430	1440	1630
5.60	1230	1420	1430	1610
6.00	1210	1390	1400	1580

MECHANICAL PROPERTIES

BS 5216

Dia.	Tensile Strength (N/mm²)					
	Grade 1		Grade 2		Grade 3	
MM	MIN	MAX	MIN	MAX	MIN	MAX
0.50	1800	2060	2060	2320	2320	2580
0.53	1780	2040	2040	2300	2300	2560
0.56	1760	2020	2020	2280	2280	2540
0.60	1750	1990	1990	2230	2230	2470
0.63	1730	1970	1970	2210	2210	2450
0.67	1720	1960	1960	2200	2200	2440
0.71	1680	1920	1920	2160	2160	2400
0.75	1660	1900	1900	2140	2140	2380
0.80	1650	1880	1880	2110	2110	2340
0.85	1620	1850	1850	2080	2080	2310
0.90	1600	1830	1830	2060	2060	2290
0.95	1580	1810	1810	2040	2040	2270
1.00	1570	1790	1790	2010	2010	2230
1.06	1550	1770	1770	1990	1990	2210
1.12	1530	1750	1750	1970	1970	2190
1.18	1530	1740	1740	1950	1950	2160
1.25	1510	1720	1720	1930	1930	2140
1.32	1500	1700	1700	1910	1910	2120
1.40	1490	1690	1690	1890	1890	2090
1.50	1460	1660	1660	1860	1860	2060
1.60	1440	1640	1640	1840	1840	2040
1.70	1420	1620	1620	1820	1820	2020
1.80	1400	1600	1600	1800	1800	2000
1.90	1390	1590	1590	1790	1790	1990
2.00	1370	1570	1570	1770	1770	1970
2.12	1350	1550	1550	1750	1750	1950
2.24	1330	1530	1530	1730	1730	1930
2.36	1320	1520	1520	1720	1720	1920
2.50	1300	1500	1500	1700	1700	1900
2.65	1290	1490	1490	1690	1690	1890
2.80	1270	1470	1470	1670	1670	1870
3.00	1250	1450	1450	1650	1650	1850
3.15	1240	1440	1440	1640	1640	1840
3.35	1220	1420	1420	1620	1620	1820
3.55	1200	1400	1400	1600	1600	1800
3.75	1190	1390	1390	1590	1590	1790
4.00	1170	1370	1370	1570	1570	1770
4.25	1150	1350	1350	1550	1550	1750
4.50	1130	1330	1330	1530	1530	1730
4.75	1120	1320	1320	1520	1520	1720
5.00	1110	1310	1310	1510	1510	1710
5.30	1090	1290	1290	1490	1490	1690
5.60	1070	1270	1270	1470	1470	1670
6.00	1050	1250	1250	1450	1450	1650

MECHANICAL PROPERTIES

AS 1472

Dia.	Tensile Strength (N/mm²)				
	Range1		Range2		
MM	MIN	MAX	MIN	MAX	
0.56	1960	2250	2220	2490	
0.63	1930	2220	2190	2460	
0.69	1900	2190	2160	2430	
0.71	1900	2190	2160	2430	
0.80	1870	2160	2130	2400	
0.90	1840	2130	2100	2370	
1.00	1800	2070	2040	2310	
1.12	1770	2040	2010	2270	
1.25	1730	2000	1970	2230	
1.40	1700	1960	1930	2180	
1.60	1670	1920	1890	2130	
1.80	1630	1880	1850	2080	
2.00	1600	1840	1810	2040	
2.24	1560	1800	1770	2000	
2.50	1530	1760	1730	1950	
2.80	1500	1720	1690	1910	
3.15	1460	1680	1650	1870	
3.55	1450	1670	1640	1850	
4.00	1410	1630	1600	1810	
4.50	1370	1590	1560	1760	
5.00	1350	1560	1530	1730	
5.60	1320	1520	1490	1680	

MECHANICAL PROPERTIES

EN 10270-1

Dia.	Tensile Strength (MPa)					
	SL		SM		SH	
	MIN	MAX	MIN	MAX	MIN	MAX
MM						
0.50	-	-	2200	2470	2460	2720
0.53	-	-	2180	2450	2440	2700
0.56	-	-	2170	2430	2410	2670
0.60	-	-	2140	2400	2380	2650
0.63	-	-	2130	2380	2380	2640
0.65	-	-	2120	2370	2360	2610
0.70	-	-	2090	2350	2330	2580
0.75	-	-	2070	2320	2310	2560
0.80	-	-	2050	2300	2290	2530
0.85	-	-	2030	2280	2270	2510
0.90	-	-	2010	2260	2250	2490
0.95	-	-	2000	2240	2230	2470
1.00	1720	1970	1980	2220	2210	2450
1.05	1710	1950	1960	2200	2200	2430
1.10	1690	1940	1950	2190	2170	2400
1.20	1670	1910	1920	2160	2150	2380
1.25	1660	1900	1910	2140	2140	2370
1.30	1640	1890	1900	2130	2110	2340
1.40	1620	1860	1870	2100	2090	2310
1.50	1600	1840	1850	2080	2060	2290
1.60	1590	1820	1830	2050	2040	2260
1.70	1570	1800	1810	2030	2020	2240
1.80	1550	1780	1790	2010	2000	2220
1.90	1540	1760	1770	1990	1980	2200
2.00	1520	1750	1760	1970	1970	2180
2.10	1510	1730	1740	1960	1940	2150
2.25	1490	1710	1720	1930	1920	2130
2.40	1470	1690	1700	1910	1900	2110
2.50	1460	1680	1690	1890	1890	2100
2.60	1450	1660	1670	1880	1860	2070
2.80	1420	1640	1650	1850	1840	2040
3.00	1410	1620	1630	1830	1820	2020
3.20	1390	1600	1610	1810	1790	1900
3.40	1370	1580	1590	1780	1770	1970
3.60	1350	1560	1570	1760	1750	1950
3.80	1340	1740	1550	1740	1740	1930
4.00	1320	1520	1530	1730	1710	1900
4.25	1310	1500	1510	1700	1690	1880
4.50	1290	1490	1500	1680	1680	1860
4.75	1270	1470	1480	1670	1660	1840
5.00	1260	1450	1460	1650	1640	1820
5.30	1240	1430	1440	1630	1620	1800
5.60	1230	1420	1430	1610	1590	1770
6.00	1210	1390	1400	1580	1570	1750

MECHANICAL PROPERTIES

JIS G 3521 / KS D 3510

Dia.	Tensile Strength											
	SWA				SWB				SWB			
	(N/MM²)		(KGF/MM²)		(N/MM²)		(KGF/MM²)		(N/MM²)		(KGF/MM²)	
MM	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
0.50	1620	1910	165	195	1910	2210	195	226	2210	2500	226	255
0.55	1570	1860	160	190	1860	2160	190	220	2160	2450	220	250
0.60	1570	1810	160	185	1810	2110	185	215	2110	2400	215	245
0.65	1570	1810	160	185	1810	2110	185	215	2110	2400	215	245
0.70	1520	1770	155	181	1770	2060	181	210	2060	2350	210	240
0.80	1520	1770	155	181	1770	2010	181	205	2010	2300	205	235
0.90	1520	1770	155	181	1770	2010	181	205	2010	2260	205	231
1.00	1470	1720	150	176	1720	1960	176	200	1960	2210	200	226
1.20	1420	1670	145	170	1670	1910	170	195	1910	2160	195	220
1.40	1370	1620	140	165	1620	1860	165	190	1860	2110	190	215
1.60	1320	1570	135	160	1570	1810	160	185	1810	2060	185	210
1.80	1270	1520	130	155	1520	1770	155	181	1770	2010	181	205
2.00	1270	1470	130	150	1470	1720	150	176	1720	1960	176	200
2.30	1230	1420	126	145	1420	1670	145	170	1670	1910	170	195
2.60	1230	1420	126	145	1420	1670	145	170	1670	1910	170	195
2.90	1180	1370	120	140	1370	1620	140	165	1620	1860	165	190
3.20	1180	1370	120	140	1370	1570	140	160	1570	1810	160	185
3.50	1180	1370	120	140	1370	1570	140	160	1570	1770	160	181
4.00	1180	1370	120	140	1370	1570	140	160	1570	1770	160	181
4.50	1130	1320	115	135	1320	1520	135	155	1520	1720	155	176
5.00	1130	1320	115	135	1320	1520	135	155	1520	1720	155	176
5.50	1080	1270	110	130	1270	1470	130	150	1470	1670	150	170
6.00	1030	1230	105	126	1230	1420	126	145	1420	1620	145	165

MECHANICAL PROPERTIES

ASTM A 227

Dia.		Tensile Strength (N/mm²)				Tensile Strength (ksi)			
		Class 1		Class 2		Class 1		Class 2	
INCH	MM	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
0.020	0.51	1940	2220	2220	2220	283	323	324	364
0.023	0.58	1920	2200	2200	2200	279	319	320	360
0.026	0.66	1870	2140	2140	2140	275	315	316	356
0.028	0.71	1830	2100	2100	2100	271	311	312	352
0.029	0.74	1830	2100	2100	2100	271	311	312	352
0.032	0.81	1800	2070	2070	2070	266	306	307	347
0.035	0.89	1800	2070	2070	2070	261	301	302	342
0.041	1.04	1740	2000	2000	2000	255	293	294	332
0.048	1.22	1670	1930	1930	1930	248	286	287	325
0.054	1.37	1670	1930	1930	1930	243	279	280	316
0.062	1.57	1640	1880	1880	1880	237	272	273	308
0.072	1.83	1580	1810	1810	1810	232	266	267	301
0.075	1.91	1580	1810	1810	1810	227	261	262	296
0.080	2.03	1550	1780	1780	1780	223	261	262	296
0.092	2.34	1510	1730	1730	1730	220	253	254	287
0.106	2.69	1480	1700	1700	1700	216	248	249	281
0.120	3.05	1460	1680	1680	1680	210	241	242	273
0.135	3.43	1420	1630	1630	1630	206	237	238	269
0.148	3.76	1380	1590	1590	1590	203	234	235	266
0.162	4.11	1380	1590	1590	1590	200	230	231	261
0.177	4.50	1350	1550	1550	1550	195	225	226	256
0.192	4.88	1320	1510	1510	1510	192	221	222	251
0.207	5.26	1300	1490	1490	1490	190	218	219	247
0.225	5.72	1280	1470	1470	1470	185	214	215	243

MECHANICAL PROPERTIES

JIS G 3522

Dia	SWP-A				SWP-B			
	Tensile Strength		Tensile Strength		Tensile Strength		Tensile Strength	
	(N/MM²)		(KGF/MM²)		(N/MM²)		(KGF/MM²)	
MM	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
0.50	2300	2550	235	260	2550	2790	260	285
0.55	2260	2500	231	255	2500	2750	255	281
0.60	2210	2450	226	250	2450	2700	250	276
0.65	2210	2450	226	250	2450	2700	250	276
0.70	2160	2400	220	245	2400	2650	245	270
0.80	2110	2350	215	240	2350	2600	240	265
0.90	2110	2300	215	235	2300	2500	235	255
1.00	2060	2260	210	231	2260	2450	231	250
1.20	2010	2210	205	226	2210	2400	226	245
1.40	1960	2160	200	220	2160	2350	220	240
1.60	1910	2110	195	215	2110	2300	215	235
1.80	1860	2060	190	210	2060	2260	210	231
2.00	1810	2010	185	205	2010	2210	205	226
2.30	1770	1960	181	200	1960	2160	200	220
2.60	1770	1960	181	200	1960	2160	200	220
2.90	1720	1910	176	195	1910	2110	195	215
3.00	1670	1860	170	190	1860	2060	190	210
3.20	1670	1860	170	190	1860	2060	190	210
3.50	1670	1810	170	185	1810	1960	185	200
4.00	1670	1810	170	185	1810	1960	185	200
4.50	1620	1770	165	181	1770	1910	181	195
5.00	1620	1770	165	181	1770	1910	181	195
5.50	1570	1710	160	174	1710	1860	174	190
6.00	1520	1670	155	170	1670	1810	170	185

MECHANICAL PROPERTIES

BS 5216

Dia	Grade 4		Grade 5		
	Tensile Strength (N/MM²)				
	MM	MIN	MAX	MIN	MAX
0.50	-	-	2090	2350	
0.53	2430	2650	2650	2870	
0.56	2420	2630	2630	2840	
0.60	2410	2610	2610	2810	
0.63	2400	2590	2590	2780	
0.67	2380	2570	2570	2760	
0.71	2370	2550	2550	2730	
0.75	2350	2530	2530	2710	
0.80	2320	2490	2490	2660	
0.85	2290	2460	2460	2630	
0.90	2280	2440	2440	2600	
0.95	2260	2420	2420	2580	
1.00	2240	2390	2390	2540	
1.06	2210	2360	2360	2510	
1.12	2190	2340	2340	2490	
1.18	2160	2310	2310	2460	
1.25	2140	2290	2290	2440	
1.32	2120	2270	2270	2420	
1.40	2090	2240	2240	2390	
1.50	2060	2210	2210	2360	
1.60	2040	2190	2190	2340	
1.70	2020	2170	2170	2320	
1.80	2000	2150	2150	2300	
1.90	1990	2140	2140	2290	
2.00	1970	2120	2120	2270	
2.12	1950	2100	2100	2250	
2.24	1930	2080	2080	2230	
2.36	1920	2070	2120	2220	
2.50	1900	2050	2050	2200	
2.65	1890	2040	2040	2190	
2.80	1870	2020	2020	2170	
3.00	1850	2000	2000	2150	
3.15	1840	1990	-	-	
3.35	1820	1970	-	-	
3.55	1800	1950	-	-	
3.75	1790	1940	-	-	
4.00	1770	1920	-	-	
4.25	-	-	-	-	
4.50	-	-	-	-	
4.75	-	-	-	-	
5.00	-	-	-	-	
5.30	-	-	-	-	
5.60	-	-	-	-	
6.00	-	-	-	-	

MECHANICAL PROPERTIES

AS 1472

Dia	Range3		
	Tensile Strength		
	(Mpa=N/MM²)		
MM	MIN	MAX	
0.56	2460	2780	
0.63	2430	2750	
0.69	2400	2710	
0.71	2400	2710	
0.80	2370	2680	
0.90	2340	2640	
1.00	2280	2570	
1.12	2240	2530	
1.25	2200	2480	
1.40	2150	2430	
1.60	2100	2370	
1.80	2050	2320	
2.00	2010	2270	
2.24	1970	2230	
2.50	1920	2170	
2.80	1880	2120	
3.15	1840	2080	
3.55	1820	2060	
4.00	1780	2010	
4.50	1730	1960	
5.00	1700	1920	
5.60	1650	1860	

MECHANICAL PROPERTIES

DIN 17223

Dia	CLASS C		CLASS D	
	Tensile Strength (N/MM²)			
	MM	MIN	MAX	MIN
0.50	-	-	2480	2740
0.53	-	-	2460	2720
0.56	-	-	2440	2700
0.60	-	-	2410	2670
0.63	-	-	2390	2650
0.65	-	-	2380	2640
0.70	-	-	2360	2610
0.75	-	-	2330	2580
0.80	-	-	2310	2560
0.85	-	-	2290	2530
0.90	-	-	2270	2510
0.95	-	-	2250	2490
1.00	-	-	2230	2470
1.05	-	-	2210	2450
1.10	-	-	2200	2430
1.20	-	-	2170	2400
1.25	-	-	2150	2380
1.30	-	-	2140	2370
1.40	-	-	2110	2340
1.50	-	-	2090	2310
1.60	-	-	2060	2290
1.70	-	-	2040	2260
1.80	-	-	2020	2240
1.90	-	-	2000	2220
2.00	1980	2200	1980	2200
2.10	1970	2180	1970	2180
2.25	1940	2150	1940	2150
2.40	1920	2130	1920	2130
2.50	1900	2110	1900	2110
2.60	1890	2100	1890	2100
2.80	1860	2070	1860	2070
3.00	1840	2040	1840	2040
3.20	1820	2020	1820	2020
3.40	1790	1990	1790	1990
3.60	1770	1970	1770	1970
3.80	1750	1950	1750	1950
4.00	1740	1930	1740	1930
4.25	1710	1900	1710	1900
4.50	1690	1880	1690	1880
4.75	1680	1860	1680	1860
5.00	1660	1840	1660	1840
5.30	1640	1820	1640	1820
5.60	1620	1800	1620	1800
6.00	1590	1770	1590	1770

MECHANICAL PROPERTIES

EN 10270-1

Dia	DM		DH	
	Tensile Strength (Mpa=N/MM²)			
MM	MIN	MAX	MIN	MAX
0.50	2200	2470	2480	2740
0.53	2180	2450	2460	2720
0.56	2170	2430	2440	2700
0.60	2140	2400	2410	2670
0.63	2130	2380	2390	2650
0.65	2120	2370	2380	2640
0.70	2090	2350	2360	2610
0.75	2070	2320	2330	2580
0.80	2050	2300	2310	2560
0.85	2030	2280	2290	2530
0.90	2010	2260	2270	2510
0.95	2000	2240	2250	2490
1.00	1980	2220	2230	2470
1.05	1960	2200	2210	2450
1.10	1950	2190	2200	2430
1.20	1920	2160	2170	2400
1.25	1910	2140	2150	2380
1.30	1900	2130	2140	2370
1.40	1870	2100	2110	2340
1.50	1850	2080	2090	2310
1.60	1830	2050	2060	2290
1.70	1810	2030	2040	2260
1.80	1790	2010	2020	2240
1.90	1770	1990	2000	2220
2.00	1760	1970	1980	2200
2.10	1740	1960	1970	2180
2.25	1720	1930	1940	2150
2.40	1700	1910	1920	2130
2.50	1690	1890	1900	2110
2.60	1670	1880	1890	2100
2.80	1650	1850	1860	2070
3.00	1630	1830	1840	2040
3.20	1610	1810	1820	2020
3.40	1590	1780	1790	1990
3.60	1570	1760	1770	1970
3.80	1550	1740	1750	1950
4.00	1530	1730	1740	1930
4.25	1510	1700	1710	1900
4.50	1500	1680	1690	1880
4.75	1480	1670	1680	1860
5.00	1460	1650	1660	1840
5.30	1440	1630	1640	1820
5.60	1430	1610	1620	1800
6.00	1400	1580	1590	1770

STAINLESS STEEL WIRE FOR GENERAL PURPOSE

•MECHANICAL PROPERTIES

Dia.	Tolerance	Tensile Strength (N/MM²)				Surface Finish
		SOFT (W1)	1/4H	1/2H	F.H	
MM	MM	302, 304L	302	302	302	
		304, 316L	304, 304L	304	304	
		316, 310S	316			
0.8						
0.9	± 0.015				1850 - 2100	
1.0		570 - 820	780 - 1130	1130 - 1470	1750 - 2000	
1.2						
1.4	± 0.020					
1.6					1650 - 1900	
1.8						Dull or Bright
2.0	± 0.030					
2.6		520 - 770	740 - 1080	1080 - 1420	1550 - 1800	
2.8						
3.0	± 0.040					
4.0					1450 - 1700	

•PACKING

Dia.	SOFT (W1)				
	Coil Dia	Unit Weight (KG)			
MM	INCH	Coil	Spool	Drum	Carrier
0.8	12	25	20	200	-
0.9	12	25	-	200	-
1.0	12(16)	30	-	200	-
1.2	16	40	-	200	-
1.4	16	60	-	200	-
1.6	16	60	-	200	-
1.8	16	60	-	200	-
2.0	24	100	-	-	600
2.6	24	250	-	-	600
3.0	24	250	-	-	600
4.0	24	250	-	-	600

Dia.	1/4H				
	Coil Dia.	Unit Weight (KG)			
MM	INCH	Coil	Spool	Drum	Carrier
0.8	12	25	40	-	-
0.9	12	25	40	-	-
1.0	16	50	-	-	-
1.2	16	50	-	-	-
1.4	16	60	-	-	-
1.6	16	60	-	-	-
1.8	16	60	-	-	-
2.0	24	500	-	-	910
2.6	24	500	-	-	910
3.0	24	500	-	-	910
4.0	24	500	-	-	910

Dia.	1/2H – F.H				
	Coil Dia.	Unit Weight (KG)			
MM	INCH	Coil	Spool	Carrier	
0.8	12	25	20 ~ 40	-	
0.9	12	25	20 ~ 40	-	
1.0	16	40	350	-	
1.2	16	50	350	-	
1.4	16	50	350	-	
1.6	16	60	350	-	
1.8	18	60	350	-	
2.0	24	500	-	-	
2.6	24	500	-	-	
3.0	24	500	-	-	
4.0	24	500	-	-	

STAINLESS STEEL WIRE FOR SPRING

•SURFACE FINISH & APPLICATIONS

Type	Symbol	Grade	Dia.(MM)	Applications
S-Co	WPA	302, 304, 304N1, 316	0.20 ~ 7.00	General Spring
	WPB	302, 304, 304N1	0.20 ~ 7.00	
	WPC	631J1	0.20 ~ 5.00	
Bright	WPA	302, 304, 304N1, 316	0.15 ~ 6.00	Precision Spring good bright surface
	WPB	302, 304, 304N1	0.15 ~ 6.00	forming processing work

•MECHANICAL PROPERTIES

Dia.	Tolerance (mm)	Tensile Strength (N/MM²)		
		CLASS A	CLASS B	CLASS C
MM	MM	302-WPA	302-WPB	631J1-WPC
		304-WPA, 304N1-WPA	304-WPB	
		316-WPA	304N1-WPB	
0.40	± 0.010	1600 - 1850		
0.45				
0.50				
0.55			1950 - 2200	1850 - 2100
0.60				
0.65				
0.70	± 0.015			
0.80		1530 - 1780	1850 - 2100	1800 - 2050
0.90				
1.00				
1.20		1450 - 1700	1750 - 2000	1700 - 1950
1.40				
1.60	± 0.020			
1.80		1400 - 1650	1650 - 1900	1600 - 1850
2.00				
2.30		1320 - 1570	1550 - 1800	1500 - 1750
2.60				
2.90				
3.20	± 0.025	1230 - 1480	1450 - 1700	1400 - 1650
3.50				
4.00				

WIRE-STAINLESS STEEL WIRE

•PACKING - SPOOL&WOODEN REEL

Dia.	Packing	App.W/T
MM	F × B × W : A	KG
0.50 ~ 0.99	DIN 250	25
1.00 ~ 4.00	600 Wooden Reel 600X1345X450	200

•PACKING - COIL

Dia.	Coil I.D	App.W/T
MM	INCH	KG
0.40 ~ 0.50	8 ~ 10	10
0.50 ~ 0.80	12	20 ~ 25
0.80 ~ 0.90	16	25 ~ 35
0.90 ~ 1.00	16	25 ~ 50
1.0 ~ 1.80	16	25 ~ 50
1.80 ~ 2.30	24	100
2.30 ~ 4.00	24	100 ~ 200
4.00	24	200 ~ 500

•PACKING - CARRIER

Dia.	Coil I.D	App.W/T
MM	INCH	KG
2.00 ~ 4.20	24	910

•CAST & HELIX

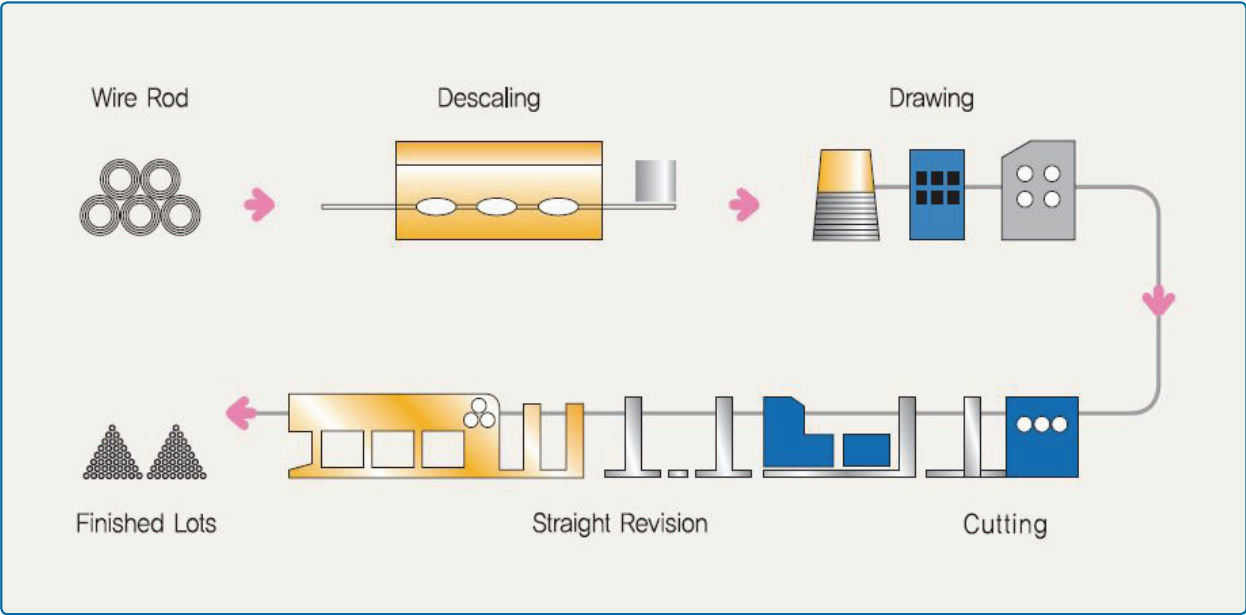
Dia.	Coil I.D	Cast	Helix
MM	INCH	MM	MM
0.40 ~ 0.50	8	200 ~ 300	
	10	250 ~ 370	
0.50 ~ 0.80	12	300 ~ 450	
0.80 ~ 0.90	16	400 ~ 600	50 under
0.90 ~ 1.00			
1.00 ~ 1.80			
1.80 ~ 2.30	24	600 ~ 900	60 under
2.30 ~ 3.20			
3.20 ~ 4.00	30	760 ~ 1150	100 under

PRODUCT DETAILS AND APPLICATION

The Cold drawn steel bar refers to a bar-shaped product that is produced by drawing and straightening steel rods and cutting them into certain lengths. It is used mainly as machine parts and electronics materials. And Cold drawn bar is superior to hot rolled bar in terms of surface roughness, precision, and straightness and is used for the manufacture of automotive parts and electronic goods.

MANUFACTURING PROCESS

•PRODUCTION PROCESS



PRODUCTION RANGE

•PRODUCT DIMENSIONS CLASSIFICATION

Forms Of Supply	Size	Length	Material
Round	4 ~ 100mm	2 ~ 6m	Carbon Steel /Stainless Steel
Hexagonal	30 ~ 60mm	2 ~ 6m	
Square	22 ~ 60mm	2 ~ 6m	

•TOLERANCE BY CATEGORY

tolerance	H8	H9	H10	H11
diameter				
over 3mm ~ below6mm	-0.018	-0.03	-0.04	-0.075
6mm ~ 10mm	-0.022	-0.036	-0.05	-0.09
10mm ~ 18mm	-0.027	-0.043	-0.07	-0.11
18mm ~ 30mm	-0.033	-0.052	-0.084	-0.13
30mm ~ 50mm	-0.039	-0.062	-0.1	-0.16
50mm ~ 80mm	-0.046	-0.074	-0.12	-0.19
80mm ~ 120mm	-0.054	-0.087	-0.14	-0.22
Shape of bar				

QUALITY CHARACTERISTICS ACCORDING TO THE STEEL GRADE

•CLASSIFICATION BY CHEMICAL COMPOSITION

Specification		Chemical Composition (%)								
KS	JIS	SAE	C	Si	Mn	P	S	Ni	Cr	
SM10C	S10C	1010	0.08~0.13	0.15~0.35	0.03~0.60	0.030 max	0.035 max	-	-	
SM15C	S15C	1015	0.13~0.18	0.15~0.35	0.03~0.60	0.030 max	0.035 max	-	-	
SM18C	S18C	1018	0.15~0.20	0.15~0.35	0.03~0.60	0.030 max	0.035 max	-	-	
SM20C	S20C	1020	0.18~0.23	0.15~0.35	0.03~0.60	0.030 max	0.035 max	-	-	
SM22C	S22C	1022	0.20~0.25	0.15~0.35	0.03~0.60	0.030 max	0.035 max	-	-	
SM25C	S25C	1025	0.22~0.28	0.15~0.35	0.03~0.60	0.030 max	0.035 max	-	-	
Carbon steel	SM35C	S35C	1035	0.35~0.38	0.15~0.35	0.06~0.90	0.030 max	0.035 max	-	-
	SM38C	S38C	1038	0.35~0.41	0.15~0.35	0.06~0.90	0.030 max	0.035 max	-	-
	SM40C	S40C	1040	0.37~0.43	0.15~0.35	0.06~0.90	0.030 max	0.035 max	-	-
	SM45C	S45C	1045	0.42~0.48	0.15~0.35	0.06~0.90	0.030 max	0.035 max	-	-
	SM48C	S48C	1049	0.45~0.51	0.15~0.35	0.06~0.90	0.030 max	0.035 max	-	-
	SM50C	S50C	1050	0.48~0.53	0.15~0.35	0.06~0.90	0.030 max	0.035 max	-	-
	SM55C	S55C	1055	0.52~0.58	0.15~0.35	0.06~0.90	0.030 max	0.035 max	-	-
	SM58C	S58C	1060	0.55~0.65	0.15~0.35	0.06~0.90	0.030 max	0.035 max	-	-
Stainless steel	STS304	SUS304	-	0.08 max	1.00 max	2.00 max	0.045 max	0.030 max	8.0~10.5	8.0~20.0
	STS316	SUS316	-	0.08 max	1.00 max	2.00 max	0.045 max	0.030 max	10.0~14.0	18.0~20.0