

Standard		Nominal Diameter	Diameter Tolerance	Nominal Area	Unit Weight	Weight Tolerance	Minimum Breaking Load	Minimum Yield Load			Indent Depth	Minimum Elongation	Minimum Reserve Bend	Straightness	1,000-HR. Relaxation	MOE
	Grade Mpa	mm.	mm.	mm. ²	kg./1,000m.		kN.	kN.			mm.	%			(% Max.)	Gpa or kN/mm2
								0.1%	0.2%	at 1.0% extension						
TIS 95 - 1997	1 770	4	-	12.6	98.9	+/-2.0 g/m	22.3	18.5	19.0	-	0.05 - 0.20	3.5	≥ 4 for plain ≥ 3 for indented	≤ 30 mm. of 1 m.	80% Fm	4.5
	1 670	4	-	12.6	98.9	+/-2.0 g/m	21.0	17.5	17.9	-	0.05 - 0.20	3.5				4.5
	1 770	5	-	19.6	154	+/-3.1 g/m	34.7	28.8	29.5	-	0.05 - 0.20	3.5				4.5
	1 670	5	-	19.6	154	+/-3.1 g/m	32.7	27.2	27.8	-	0.05 - 0.20	3.5				4.5
	1 670	7	-	38.5	302	+/-4.3 g/m	64.3	53.4	54.7	-	0.10 - 0.25	3.5				4.5
	1 570	7	-	38.5	302	+/-4.3 g/m	60.4	50.1	51.3	-	0.10 - 0.25	3.5				4.5
	1 470	9	-	63.6	499	+/-7.2 g/m	93.5	74.8	76.7	-	0.10 - 0.25	3.5				4.5
AS/NZS 4672 - 2007	1 770	4.00	-	12.60	98.90	+/-2.0 g/m	22.30	18.50	19.00	-	0.08 - 0.16	3.5	≥ 4 for plain ≥ 3 for indented	≤ 30 mm. of 1 m.	80% Fm	3.0
	1 770	5.00	-	19.60	154.00	+/-3.1 g/m	34.70	28.80	29.50	-	0.08 - 0.16	3.5				3.0
	1 670	5.00	-	19.60	154.00	+/-3.1 g/m	32.70	27.20	27.80	-	0.08 - 0.16	3.5				3.0
	1 700	5.03	-	19.90	156.00	+/-3.1 g/m	33.80	28.10	28.70	-	0.08 - 0.16	3.5				3.0
	1 670	7.00	-	38.50	302.00	+/-4.3 g/m	64.30	53.40	54.70	-	0.11 - 0.19	3.5				3.0
	1 570	7.00	-	38.50	302.00	+/-4.3 g/m	60.40	50.10	51.30	-	0.11 - 0.19	3.5				3.0
	1 470	9.00	-	63.60	499.00	+/-7.2 g/m	93.50	74.80	76.70	-	0.11 - 0.19	3.5				3.0
ASTM A421 - 2015	WA	4.98	+/-0.05	19.47	152.05	-	33.58	-	-	28.52	-	4.0	-	≤ 3 inch of 60 inch	80% Fm	3.5
		6.35	+/-0.05	31.65	247.21	-	52.39	-	-	44.54	-	4.0				3.5
		7.01	+/-0.05	38.57	301.27	-	62.49	-	-	53.12	-	4.0				3.5
	BA	4.98	+/-0.05	19.47	152.05	-	32.22	-	-	27.39	-	4.0				3.5
		6.35	+/-0.05	31.65	247.21	-	52.39	-	-	44.54	-	4.0				3.5
ASTM A881 - 2016	1620	5.03	+/-0.08	19.86	155.90	-	32.20	-	-	28.98	0.08 - 0.15	3.0	wire bend 6X	≤ 3 inch of 1.8 m.	80% Fm	3.5
		5.03	+/-0.08	19.86	155.90	-	34.30	-	-	30.87	0.08 - 0.15	3.0				3.5
		1760	+/-0.08	22.23	174.50	-	39.10	-	-	36.83	0.08 - 0.15	3.0				3.5
BS 5896 - 2012	Y1670C	4.00	-	12.6	98.40	+/-2.0 %	21.0 - 24.2	18.5	-	-	INDENT 0.06 - 0.16(+/-0.04) CH 0.06 - 0.13(+/-0.03)	3.5	10 10 15 15 15 15 15 15 20 20	≤ 25 mm. of 1 m.	80% Fma	4.5
	Y1770C	4.00	-	12.6	98.40	+/-2.0 %	22.3 - 25.6	19.6	-	-		3.5				4.5
	Y1620C	4.50	-	15.9	124.20	+/-2.0 %	25.8 - 29.7	22.7	-	-		3.5				4.5
	Y1670C	5.00	-	19.6	153.10	+/-2.0 %	32.7 - 37.6	28.8	-	-		3.5				4.5
	Y1770C	5.00	-	19.6	153.10	+/-2.0 %	34.7 - 39.9	30.50	-	-	INDENT 0.06 - 0.16(+/-0.04) CH 0.09 - 0.16(+/-0.04)	3.5				4.5
	Y1860C	5.00	-	19.6	153.10	+/-2.0 %	36.5 - 42.0	32.5	-	-		3.5				4.5
	Y1670C	6.00	-	28.3	221.00	+/-2.0 %	47.3 - 54.4	41.6	-	-		3.5				4.5
	Y1770C	6.00	-	28.3	221.00	+/-2.0 %	50.1 - 57.6	44.1	-	-		3.5				4.5
	Y1570C	7.00	-	38.5	300.70	+/-2.0 %	60.4 - 69.5	53.2	-	-		3.5				4.5
	Y1670C	7.00	-	38.5	300.70	+/-2.0 %	64.3 - 73.9	56.6	-	-		3.5				4.5
prEN 10138 - 2012	Y1860C	4.0	-	12.6	98.4	+/-2.0 %	23.4-26.9	20.8	-	-	0.06 - 0.13(+/-0.03)	3.5	≥ 4 for plain ≥ 3 for indented	≤ 25 mm. of 1 m.	70% Fma	2.5
	Y1770C	4.0	-	12.6	98.4	+/-2.0 %	22.3-25.6	19.6	-	-	0.06 - 0.13(+/-0.03)	3.5				2.5
	Y1860C	5.0	-	19.6	153.1	+/-2.0 %	36.5-42.0	32.5	-	-	0.06 - 0.13(+/-0.03)	3.5				2.5
	Y1770C	5.0	-	19.6	153.1	+/-2.0 %	34.7-39.9	30.5	-	-	0.06 - 0.13(+/-0.03)	3.5				2.5
	Y1670C	5.0	-	19.6	153.1	+/-2.0 %	32.7-37.6	28.8	-	-	0.06 - 0.13(+/-0.03)	3.5				2.5
	Y1770C	6.0	-	28.3	221.0	+/-2.0 %	50.1-57.6	44.1	-	-	0.09 - 0.16(+/-0.03)	3.5				2.5
	Y1670C	6.0	-	28.3	221.0	+/-2.0 %	47.3-54.4	41.6	-	-	0.09 - 0.16(+/-0.03)	3.5				2.5
	Y1670C	7.0	-	38.5	300.7	+/-2.0 %	64.3-73.9	56.6	-	-	0.09 - 0.16(+/-0.03)	3.5				2.5
	Y1570C	7.0	-	38.5	300.7	+/-2.0 %	60.4-69.5	53.2	-	-	0.09 - 0.16(+/-0.03)	3.5				2.5
	Y1670C	8.0	-	50.3	392.8	+/-2.0 %	84.0-96.6	73.9	-	-	0.09 - 0.16(+/-0.03)	3.5				2.5
JIS 3536 - 2014	SWPDL (indent)	4.00	+/-0.04	12.57	98.70	-	21.10	-	18.60	-	-	3.5	-	-	70% Fm	2.5
		5.00	+/-0.05	19.64	154.00	-	31.90	-	27.90	-	-	4.0				2.5
		6.00	+/-0.05	28.27	222.00	-	44.10	-	38.70	-	-	4.0				2.5
	SWPR1AL (plain)	7.00	+/-0.05	38.48	302.00	-	58.30	-	51.00	-	-	4.5				2.5
		8.00	+/-0.06	50.27	395.00	-	74.00	-	64.20	-	-	4.5				2.5
		9.00	+/-0.06	63.62	499.00	-	90.20	-	78.00	-	-	4.5				2.5
	SWPR1BL (plain)	5.00	+/-0.05	19.64	154.00	-	33.80	-	29.90	-	-	4.0				2.5
		7.00	+/-0.05	38.48	302.00	-	62.30	-	54.90	-	-	4.5				2.5
LNEC E452 - 2011	1 770	4.00	-	12.60	98.40	+/-2.0 %	22.3 - 25.6	19.60	-	-	0.06 - 0.13 (+/-0.03)	3.5	-	≤ 25 mm. of 1 m.	70% Fma	2.5
		4.00	-	12.60	98.40	+/-2.0 %	23.4 - 26.9	20.80	-	-	0.06 - 0.13 (+/-0.03)	3.5				2.5
		5.00	-	19.60	153.10	+/-2.0 %	34.7 - 39.9	30.50	-	-	0.06 - 0.13 (+/-0.03)	3.5				2.5
		5.00	-	19.60	153.10	+/-2.0 %	36.5 - 42.0	32.50	-	-	0.06 - 0.13 (+/-0.03)	3.5				2.5
		6.00	-	28.30	221.00	+/-2.0 %	50.1 - 57.6	44.10	-	-	0.09 - 0.16 (+/-0.04)	3.5				2.5
		7.00	-	38.50	300.70	+/-2.0 %	64.3 - 73.9	56.60	-	-	0.09 - 0.16 (+/-0.04)	3.5				2.5
		8.00	-	50.30	392.80	+/-2.0 %	84.0 - 96.6	73.90	-	-	0.09 - 0.16 (+/-0.04)	3.5				2.5
		8.00	-	50.30	392.80	+/-2.0 %	84.0 - 96.6	73.90	-	-	0.09 - 0.16 (+/-0.04)	3.5				2.5
XP A35 - 045 - 2	1 860	4.00	-	12.60 +/-2.0%	99.00	+/-2.0 %	23.40	21.00	-	-	0.04 - 0.08	3.5	3 3	≤ 25 mm.	80% Fma	4.5
	1 860	5.00	-	19.60 +/-2.0%	153.00	+/-2.0 %	36.50	32.50	-	-	0.05 - 0.09	3.5				4.5
MS 1138 - 2 2007	1 770	4.00	-	12.60	98.90	+/-2.0 %	22.30	-	19.00	-	0.07 - 0.17	3.5	-	≤ 30 mm. of 1 m.	80% Fm	4.5
	1 670	4.00	-	12.60	98.90	+/-2.0 %	21.00	-	17.90	-	0.07 - 0.17	3.5				4.5
	1 770	5.00	-	19.60	154.00	+/-3.1 %	34.70	-	29.80	-	0.07 - 0.17	3.5				4.5
	1 670	5.00	-	19.60	154.00	+/-3.1 %	32.70	-	27.80	-	0.07 - 0.17	3.5				4.5
	1 770	6.00	-	28.30	222.00	+/-3.7 %	50.10	-	42.60	-	0.10 - 0.20	3.5				4.5
	1 670	6.00	-	28.30	222.00	+/-3.7 %	47.30	-	40.20	-	0.10 - 0.20	3.5				4.5
	1 670	7.00	-	38.50	302.00	+/-4.3 %	64.30	-	54.70	-	0.10 - 0.20	3.5				4.5
	1 570	7.00	-	38.50	302.00	+/-4.3 %	60.40	-	51.30	-	0.10 - 0.20	3.5				4.5
	1 670	8.00	-	50.30	395.00	+/-5.9 %	84.00	-	71.40	-	0.10 - 0.20	3.5				4.5
SNI 1155 - 2011	KBjP-R	5.00	+/-0.05	-	-	-	31.87	-	27.95	-	-	4.0	-	-	70% Fma	2.5
	KBjP-R	7.00	+/-0.05	-	-	-	58.35	-	50.94	-	-	4.5				2.5
	KBjP-R	9.00	+/-0.06	-	-	-	90.22	-	77.96	-	-	4.5				2.5