

A Comparison of Specification for PC Strand

STANDARD		NOTATION	NOMINAL DIAMETER	DIAMETER TOLERANCE	CROSS SECTION AREA	NOMINAL WEIGHT		PITCH	Characteristic of Max Force, Fm	Characteristic proof force		MIN. YIELD STRENGTH	MIN ELONG.	Initial Force		TIME	REMARK		
TYPE	GRADE					mm.	mm. ²			kg/1000m.	TOLERANCE			kN.	0.1%			0.2%	70%
MS 1138:2007 (Part 4)	1860 (1770 for 15.7mm)	7 WIRE ORDINARY	9.53	+4/-2%	54.8	432	-	12-18D	102	-	86.6	-	3.5	2.5% (Max.)	4.5% (Max.)	1000	* Initial force (70% or 80%) of Fm		
			12.7		98.7	774			184		156.0								
			12.9		100.0	785			186		158.0								
			15.2		139.0	1101			259		220.0								
			15.7		150.0	1180			265		225.0								
ASTM A416/A416M-18	270	Grade 270 (1860)	9.53	+ 0.65mm/ - 0.15mm	55.0	430	-	12-16D	*102	-	-	92.1	165.3	2.5% (Max.)	3.5% (Max.)	1000	* Initial force (70% or 80%) of min breaking strength		
			12.7		98.7	780			*184		-							234.6	
			15.2		140.0	1100			*261		-							251.4	
			15.7		150.0	1200			*279		-								
BS 5896 : 2012	1770	Y1770S7	9.3	-	52	406	+/- 2%	14-18D	92	-	81	-	3.5	2.5% (Max.)	4.5% (Max.)	1000	* Initial force (70% or 80%) of Fm		
			12.5		93	726			165		145								
			15.7		150	1172			266		234								
	1860	Y1860S7	9.3		52	406			96.7		85.1								
			9.6		55	430			102.0		89.8								
			12.5		93	726			173.0		152.0								
			12.9		100	781			186.0		164.0								
			15.2		139	1086			259.0		228.0								
			15.7		150	1172			279.0		246.0								
AS/NZS 4672.1.2007	1850	7 WIRE "Common Sizes"	9.5	-	55	432	+4% -2%	12-18D	102	-	83.6	-	3.5	2.5% (Max.)	3.5% (Max.)	1000	* Initial force (70% or 80%) of min. breaking load		
			12.7		98.6	774			184		151							156	
	1750		143		1122	250			205		212								
	1830		143		1122	261			214		222								
	1790		7 WIRE "other strand sizes"		15.2	140			1101		250							205	212
					1860	140			1101		261							214	222
prEN 10138-3: 2006	1860	7 WIRE ORDINARY	9.3	-	52	406	+/- 2%	14-18D	96.7	-	85.1	-	3.5	2.5% Max	4.5% Max	1000	* Initial force (70% or 80%) of Fm		
			9.6		55	430			102		89.8								
			12.5		93	726			173		152								
			12.9		100	781			186		164								
			15.2		139	1066			259		228								
			15.7		150	1172			279		246								

*Min breaking strength

**Characteristic min breaking force