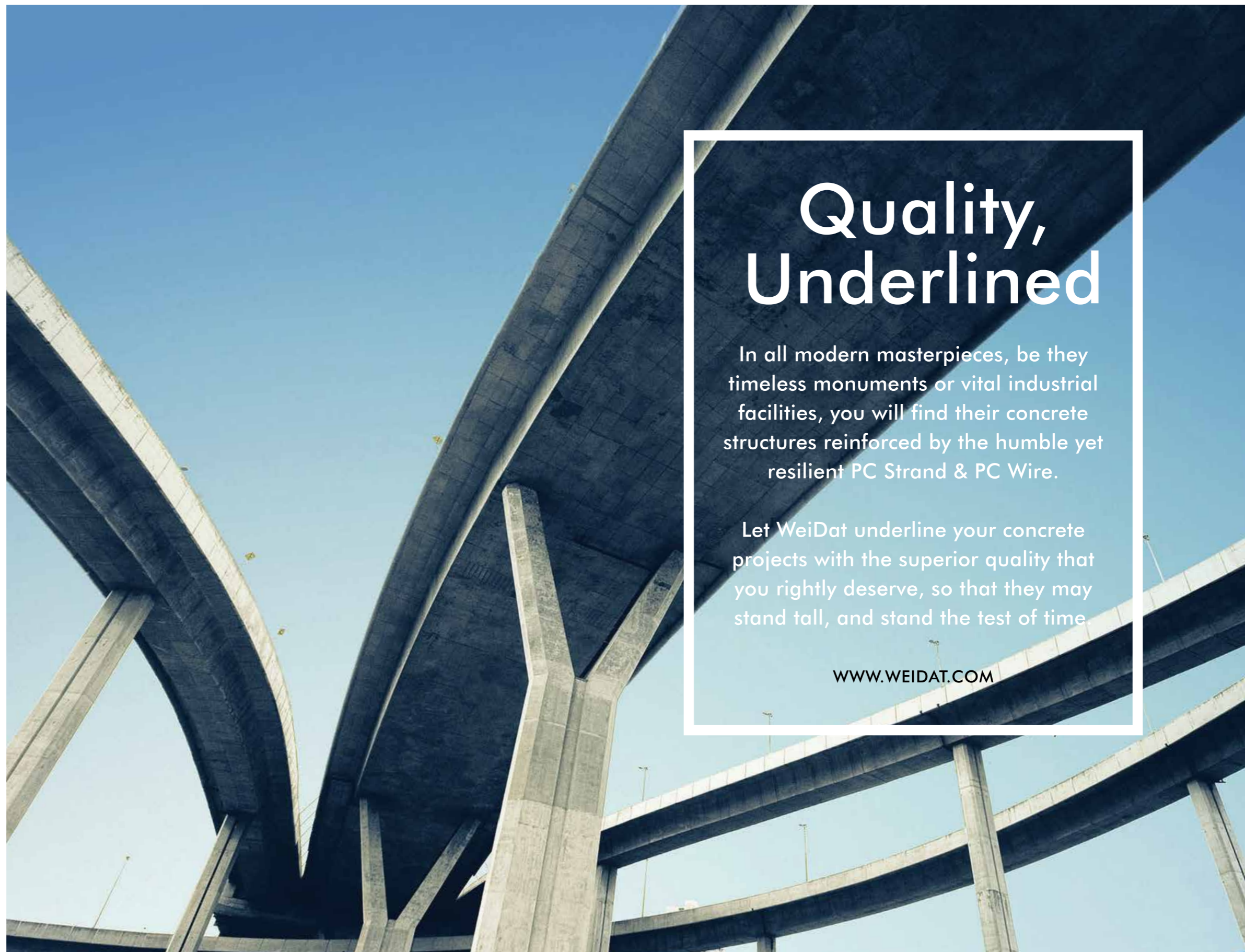


# WEIDATPC

Prestressed Concrete Strand | Prestressed Concrete Wire



# Quality, Underlined

In all modern masterpieces, be they timeless monuments or vital industrial facilities, you will find their concrete structures reinforced by the humble yet resilient PC Strand & PC Wire.

Let WeiDat underline your concrete projects with the superior quality that you rightly deserve, so that they may stand tall, and stand the test of time.

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# PRODUCT USAGES

PC STRAND (1X7 WIRE)



PC WIRE



- Multi-layer industrial buildings and factory frameworks
- High-rise buildings and houses
- Stadiums
- Bridges
- Elevated infrastructures
- Dam and nuclear power plants
- Railway track sleepers and bearers
- Ground stabilizing piles
- Concrete poles and panels
- Rock-soil anchoring system
- Pipe system



# SPECIFICATIONS

## PC STRAND (1X7 WIRE)

BS 5896-2012											
TYPE	Nominal diameter	Nominal tensile strength	Nominal cross-sectional area	Mass per meter	Permitted deviation on mass per meter	Characteristic value of maximum force	Maximum value of maximum force	Characteristic value of 0.1% proof force	Total minimum percentage elongation at maximum force	RELAXATION	
										Actual breaking strength	1000hr.
	mm	MPa	mm <sup>2</sup>	g/m	%	kN	kN	kN			
Y1770S7	11.0	1,770	70	546.7	± 2.0	124	143	109	3.50%	80%	4.5%
	12.5		93	726.3		165	190	145			
	15.7		150	1,172		266	306	234			
Y1860S7	9.6	1,860	55	429.6		102	117	89.8			
	11.3		75	585.8		140	161	123			
	12.5		93	726.3		173	199	152			
	12.9		100	781.0		186	214	164			
	15.2		139	1,086		259	298	228			
	15.7		150	1,172		279	321	246			
Y1860S7G	12.7	1,860	112	874.7		208	239	183			

## PC WIRE

BS 5896-2012											
TYPE	Nominal diameter	Cross-sectional area	Tensile strength	Mass per meter	Permitted deviation on mass per meter	Characteristic value of maximum force	Maximum value of maximum force	Characteristic value of 0.1 % proof force	Total minimum percentage elongation at maximum force	RELAXATION	
										Initially load at actual breaking strength	1000hr.
Grade	mm	mm <sup>2</sup>	MPa	g/m	%	kN	kN	kN			
Y1570C	7.0	38.5	1,570	300.7	± 2.0	60.4	69.5	53.2	3.50%	80%	4.5%
Y1620C	4.5	15.9	1,620	124.2		25.8	29.7	22.7			
Y1670C	4.0	12.6	1,670	98.4		21.0	24.2	18.5			
	5.0	19.6		153.1		32.7	37.6	28.8			
	6.0	28.3		221.0		47.3	54.4	41.6			
	7.0	38.5		300.7		64.3	73.9	56.6			
Y1770C	4.0	12.6	1,770	98.4		22.3	25.6	19.6			
	5.0	19.6		153.1		34.7	39.9	30.5			
	6.0	28.3		221.0		50.1	57.6	44.1			
Y1860C	5.0	19.6	1,860	153.1		36.5	42.0	32.5			

# SPECIFICATIONS

## PC STRAND (1X7 WIRE)

ASTM A 416 / A416M – 17a																			
TYPE	Nominal diameter		Tolerance	Minimum breaking strength		Steel area		Weight [mass]		Initial load		Minimum load at 1.0% Extension		Minimum elongation	RELAXATION				
															Initially Load of min nominal breaking strength	1,000Hr.			
Grade	in	mm	in. [mm]	lbf	kN	in <sup>2</sup>	mm <sup>2</sup>	lb/1,000ft	kg/1,000m	lbf	kN	lbf	kN						
250 [1725]	0.375	9.5	±0.016 [0.40]	20,000	89	0.080	52	272	405	2,000	8.9	18,000	80.1	3.50%	80%	4.5%			
	0.438	11.1		27,000	120	0.108	69.7	367	548	2,700	12.0	24,300	108.1						
	0.500	12.7		36,000	160	0.144	92.9	490	730	3,600	16.0	32,400	144.1						
	0.600	15.2		54,000	240	0.216	139	737	1,090	5,400	24.0	48,600	216.2						
270 [1860]	0.375	9.53	+0.026, -0.006 [+0.65, -0.15]	23,000	102	0.085	55	290	430	2,300	10.2	20,700	92.1						
	0.438	11.1		31,000	138	0.115	74.2	390	580	3,100	13.8	27,900	124.1						
	0.500	12.7		41,300	184	0.153	98.7	520	780	4,130	18.4	37,170	165.3						
	0.520	13.2		45,000	200	0.167	108	570	840	4,500	20.0	40,500	180.1						
	0.563	14.3		51,700	230	0.192	124	650	970	5,170	23.0	46,530	207.0						
	0.600	15.2		58,600	261	0.217	140	740	1,100	5,860	26.1	52,740	234.6						
	0.620	15.7		62,800	279	0.231	150	780	1,200	6,280	27.9	56,520	251.4						

## PC WIRE

ASTM A 421 / A421M – 15										
Grade	Nominal diameter		Tolerance	Tensile Strength		Minimum Stress at 1% Extension		Minimum Elongation 10 in. [250 mm]	RELAXATION	
									Initially load of min nominal breaking strength	1000hr.
	in.	mm	in. [mm]	psi	MPa	psi	MPa			
WA*	0.192	4.88	± 0.002 [0.05]	250,000	1,725	212,500	1,465	4.0%	80%	4.5%
	0.196	4.98		250,000	1,725	212,500	1,465			
	0.250	6.35		240,000	1,655	204,000	1,407			
	0.276	7.01		235,000	1,620	199,750	1,377			
BA**	0.196	4.98		240,000	1,655	204,000	1,407			
	0.250	6.35		240,000	1,655	204,000	1,407			
	0.276	7.01		235,000	1,620	199,750	1,377			

Remark : WA\* = Wedge Anchorage, BA\* = Button Anchorage

# SPECIFICATIONS

## PC STRAND (1X7 WIRE)

AS/NZS 4672.1:2007											
TYPE	Nominal diameter	Nominal tensile strength	Nominal cross-sectional area	Mass per length		Characteristic			Initial force as percentage of the characteristic minimum breaking force	Relaxation at 1,000 hr.	
				Nominal	Permissible deviation	Minimum breaking force	0.1% proof force	0.2% proof force			
Grade	mm	MPa	mm <sup>2</sup>	g/m	%	kN	kN	kN			
7 Wire ordinary common sizes	9.5	1,850	55.0	432	+4.0, -2.0	102	83.6	86.6	80%	3.5%	
	12.7	1,870	98.6	774		184	151	156			
	15.2	1,750	143.0	1,122		250	205	212			
	15.2	1,830	143.0	1,122		261	214	222			
7 Wire ordinary other Size	9.3	1,720	51.6	405		88.8	72.8	75.4			
	10.8	1,720	69.6	546		120	98.4	102			
	11.1	1,870	73.9	580		138	113	117			
	12.4	1,720	92.9	729		160	131	136			
	12.9	1,840	100.0	785		186	158	165			
	15.2	1,790	140.0	1,101		250	205	212			
	15.2	1,860	140.0	1,101		261	214	222			

# SPECIFICATIONS

## PC WIRE

AS/NZS 4672.1:2007										
TYPE	Nominal diameter	Nominal tensile strength	Nominal cross-sectional area	Mass per length		Characteristic			Initial force as per centag of the characteristic minimum breaking force	Relaxation at 1,000hr.
				Nominal	Permissible deviation	Minimum breaking force	0.1% proof force	0.2% proof force		
	mm	MPa	mm <sup>2</sup>	g/m	g/m	kN	kN	kN		
Common stress-relieved wire sizes	5.03	1,700	19.9	156	± 3.1	33.8	28.1	28.7	80%	3.0%
	7.00	1,670	38.5	302	± 4.3	64.3	53.4	54.7		
Other stress-relieved wire sizes	4.00	1,670	12.6	98.9	± 2.0	21.0	17.5	17.9		
	4.00	1,770	12.6	98.9	± 2.0	22.3	18.5	19.0		
	5.00	1,670	19.6	154	± 3.1	32.7	27.2	27.8		
	5.00	1,770	19.6	154	± 3.1	34.7	28.8	29.5		
	5.03	1,550	19.9	156	± 3.1	30.9	25.6	26.2		
	6.00	1,670	28.3	222	± 3.7	47.3	39.3	40.2		
	6.00	1,770	28.3	222	± 3.7	50.1	41.6	42.6		
	7.00	1,570	38.5	302	± 4.3	60.4	50.1	51.3		
	8.00	1,470	50.3	395	± 5.9	72.9	60.5	62.0		
	8.00	1,570	50.3	395	± 5.9	79.0	65.6	67.1		
	8.00	1,670	50.3	395	± 5.9	84.0	69.7	71.4		
	9.00	1,470	63.6	499	±7.2	93.5	74.8	76.7		
	10.00	1,470	78.5	617	±8.6	115	92.3	94.3		
	10.00	1,570	78.5	617	±8.6	123	98.6	101		
12.20	1,470	117.0	918	±10.5	172	138	141			
12.20	1,570	117.0	918	±10.5	184	147	151			

# SPECIFICATIONS

## PC STRAND (1X7 WIRE)

MS 1138: PART 4:2007										
TYPE	Nominal diameter	Nominal tensile strength	Nominal cross-sectional area	Mass per length		Characteristic			Initial force in percentage of the characteristic	Relaxation at 1,000 hr.
				Nominal	Permissible deviation	Maximum force	0.1% proof force	0.2% proof force		
Grade	mm	MPa	mm <sup>2</sup>	g/m	%	kN	kN	kN		
7 Wire ordinary common sizes	9.3	1,720	51.6	405	+4, -2	88.8	72.8	75.4	80%	4.5%
	10.8	1,720	69.7	546		120	98.4	102		
	12.4	1,720	92.9	729		160	131	136		
	15.2	1,720	139	1,101		239	196	203		
7 Wire ordinary other Size	15.7	1,720	150	1,180		265	217	225		
	9.5	1,860	54.8	432		102	83.6	86.6		
	11.1	1,860	74.2	580		138	113	117		
	12.7	1,860	98.7	774		184	151	156		
	12.9	1,860	100	785		186	153	158		
15.2	1,860	139	1,101	259		212	220			

## PC WIRE

MS 1138: PART 2:2007								
Nominal diameter	Nominal tensile strength	Nominal cross-sectional area	Mass per length		Characteristic (b)		Initial force as percentage of the characteristic maximum force	Relaxation at 1,000hr.
			Nominal	Permissible deviation	Maximum force	0.1% proof force		
mm	N/mm <sup>2</sup>	mm <sup>2</sup>	g/m	g/m	kN	kN		
4.00	1,670	12.6	98.9	± 2.0	21.0	16.8	80%	4.5%
4.00	1,770	12.6	98.9	± 2.0	22.3	17.8		
5.00	1,670	19.6	154	± 3.1	32.7	26.2		
5.00	1,770	19.6	154	± 3.1	34.7	27.8		
6.00	1,670	28.3	222	± 3.7	47.3	37.8		
6.00	1,770	28.3	222	± 3.7	50.1	40.1		
7.00	1,570	38.5	302	± 4.3	60.4	48.3		
7.00	1,670	38.5	302	± 4.3	64.3	51.4		
8.00	1,470	50.3	395	± 5.9	73.9	59.1		
8.00	1,570	50.3	395	± 5.9	79.0	63.2		

Dimensions, masses and tensile properties of mill coil wire

## SPECIFICATIONS

### PC WIRE

MS 1138: PART 2:2007

Nominal diameter	Nominal tensile strength	Nominal cross-sectional area	Mass per length		Characteristic (b)			Initial force as percentage of the characteristic maximum force	Relaxation at 1,000hr.
			Nominal	Permissible deviation	Maximum force	0.1% proof force (d) (e) (f)	0.2% proof force (d) (f)		
mm	N/mm <sup>2</sup>	mm <sup>2</sup>	g/m	g/m	kN	kN	kN		
4.00	1,670	12.6	98.9	± 2.0	21.0	17.5	17.9	80%	4.5%
4.00	1,770	12.6	98.9	± 2.0	22.3	18.5	19.0		
5.00	1,670	19.6	154	± 3.1	32.7	27.2	27.8		
5.00	1,770	19.6	154	± 3.1	34.7	28.8	29.0		
6.00	1,670	28.3	222	± 3.7	47.3	39.3	40.2		
6.00	1,770	28.3	222	± 3.7	50.1	41.6	42.6		
7.00	1,570	38.5	302	± 4.3	60.4	50.1	51.3		
7.00	1,670	38.5	302	± 4.3	64.3	53.4	54.7		
8.00	1,570	50.3	395	± 5.9	79.0	65.6	67.1		
8.00	1,670	50.3	395	± 5.9	84.0	69.7	71.4		

Dimensions, masses and tensile properties of stress-relieved wire

### Certifications & Achievements





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