



Largest
Manufacturer of
Grade 270-k
Pc Wire Strand



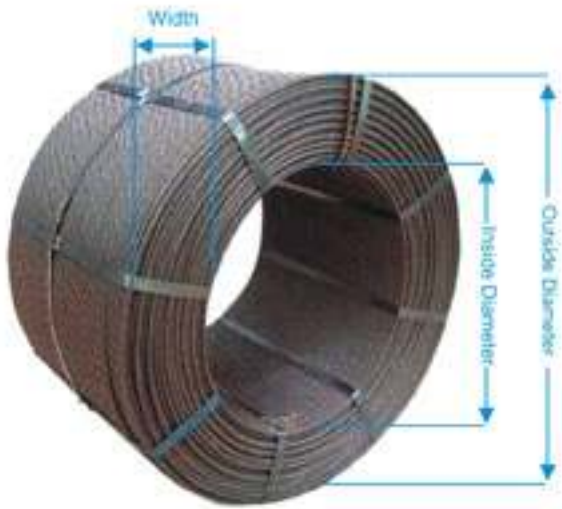

WIRE & CABLE
PRODUCTS
(PVT) LTD.

WCPL Prestressed Concrete (PC) Steel Seven Wire Strands
Standard Specification ASTM A416-80

PC 7 - WIRE STRAND

Standard	Grade	Nominal Diameter		Tolerance of Dia		Unit Weight		Breaking Load (min.)		Minimum Load 1% Extension		Elongation% in 24 inch
		In	mm	In	mm	lbs/1000ft	kg/km	lbs	kgs	lbs	kgs	(min.)
ASTM A416-80	270	3/8	9.525	+0.026 -0.006	+0.66 -0.15	290	432	23000	10,430	19,500	8,845	3.5
		7/16	11.11	+0.026 -0.006	+0.66 -0.15	390	582	31000	14,060	26,350	11,950	3.5
		1/2	12.70	+0.026 -0.006	+0.66 -0.15	520	775	41300	18,730	35,100	15,920	3.5
		0.6	15.24	+0.026 -0.006	+0.66 -0.15	740	1102	58600	26,580	49,800	22,590	3.5
	250	1/4	6.35	±0.016	±0.41	122	182	9000	4,080	7,650	3,470	3.5
		5/16	7.94	±0.016	±0.41	197	294	14500	6,580	12,300	5,580	3.5
		3/8	9.53	±0.016	±0.41	272	405	20000	9,070	17,000	7,710	3.5
		7/16	11.11	±0.016	±0.41	367	548	27000	12,250	23,000	10,430	3.5
		1/2	12.70	±0.016	±0.41	490	730	36000	16,330	30,600	13,880	3.5
		0.6	15.24	±0.016	±0.41	737	1094	54000	24,490	45,900	20,820	3.5

PC Strands Reelless Coils Strand Dimensions

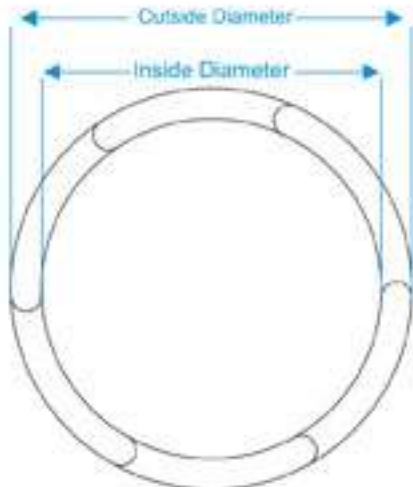

	Diameter of Strand (Inch)	Inside Diameter (mm)	Out side Diameter (mm)	Width (mm)	Weight Approx (kg)
		3/8 - 7/16	610	1220	915
	1/2 - 0.6	610	1220	915	1200/2000

WCPL Prestressed Concrete (PC) Steel Seven Wire Strands
Standard Specification ASTM A416-80

Single Wire

Standard	Nominal Diameter		Tolerance of Dia		Unit Weight		Breaking Load (min.)		Yielding Load (min.)		Elongation% in 10 inch	
	In	mm	In	mm	lbs/1000ft	kg/km	lbs	kgs	lbs	kgs	(min.)	
ASTM A421-80	Type Wa	0.192	4.88	+0.002	+0.050	98.4	146.4	7,250	3,290	6,160	2,790	4.0
		0.196	4.98	+0.002	+0.050	103.4	153.9	7,550	3,420	6,410	2,910	4.0
		0.250	6.35	+0.002	+0.050	166.8	248.2	11,780	5,340	10,010	4,540	4.0
		0.276	7.01	+0.002	+0.050	203.4	302.7	14,050	6,370	11,950	5,420	4.0
	Type Ba	0.196	4.98	+0.002	+0.050	103.4	153.9	7,250	3,280	6,160	2,798	4.0
		0.250	6.35	+0.002	+0.050	166.8	248.2	11,780	5,340	10,010	4,540	4.0
0.276		7.01	+0.002	+0.050	203.4	302.7	14,050	6,370	11,950	5,420	4.0	
SWHR C	0.315	8.00	+0.002	+0.060	255.4	395.0	15,540	7,050	12,125	5,500	3.5	

PC Wire Reelless Coils Strand Dimensions

	Diameter of Strand (mm)	Inside Diameter (mm)	Out side Diameter (mm)	Width (mm)	Weight Approx (kg)
	3.0 - 4.0	600	900	700	200
5.0 - 6.0					
7.0 - 8.0					
					

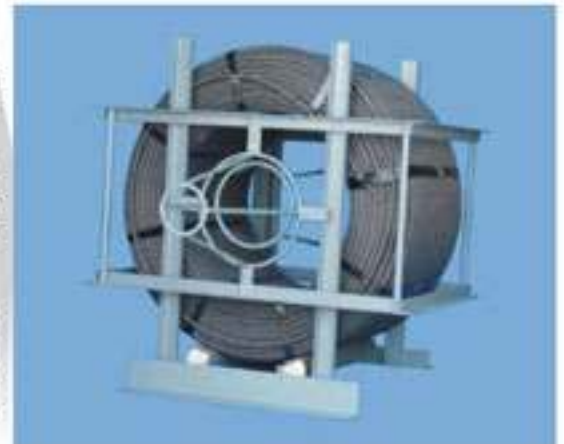
CARE AND HANDLING OF PC STRAND

1. Handling and Storage

- At all times, care should be taken to protect strand from mechanical damage. Abrasions, scrapes, or gouges of strand can reduce its breaking strength.
- To prevent rusting or pitting, strand should be stored in a dry, inside storage area. If stored outside, strand should not be placed on bare soil and should be covered.

2. Care Before Tensioning Work

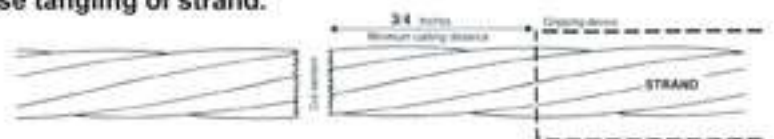
- When pulling strand from inside strand pack, a well made, tight fitting strand payoff cage should be used. Dunnage may be used between the strand pack and the payoff cage to insure a tight fit. Strand should be pulled from the pack in the direction indicated by the arrow mark.
- When strand is partially bent and tensioned, it is necessary to use a roller which has a diameter of minimum five times the nominal diameter of strand.
- When it is necessary to cut the strand after stressing, it is advisable to use a saw or cutting grinder. When using a gas flame for cutting, strand must be cut at a point 3/4-inch to 1-inch away from anchoring wedge.
- Welding, heating and partial bending of prestressing materials must not be done. e. Polishing strand with sandpaper at sections which have contact with anchorage helps to prevent slippage and are good for secure anchoring.
- Care should be taken to use the most suitable anchoring grips for strand, since strand is subjected not only to tensile stress, but also to shearing stress at the gripped section.



3. Procedures for pulling strand from inside strand pack:

- Pull Direction
 - Place strand pack in a strand cage so that the arrow pull direction faces the opening.
- Space Considerations
 - There should be less than 2" of space between strand pack and frame of strand cage prior to cutting banding straps.
 - When there is space, insert spacers (such as wooden boards) prior to cutting banding straps.

Note: Excessive expansion of pack may cause tangling of strand.



4. Cutting Torch Effects

- Years of experience and lab tests have shown that heat from cutting torch greatly affects strand hardness. (Figure 1)

Caution: Never torch-cut strand within 3/4 inches of gripping device.

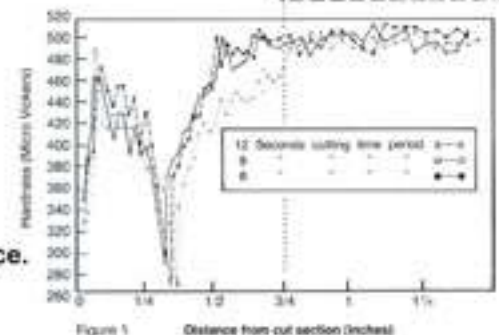
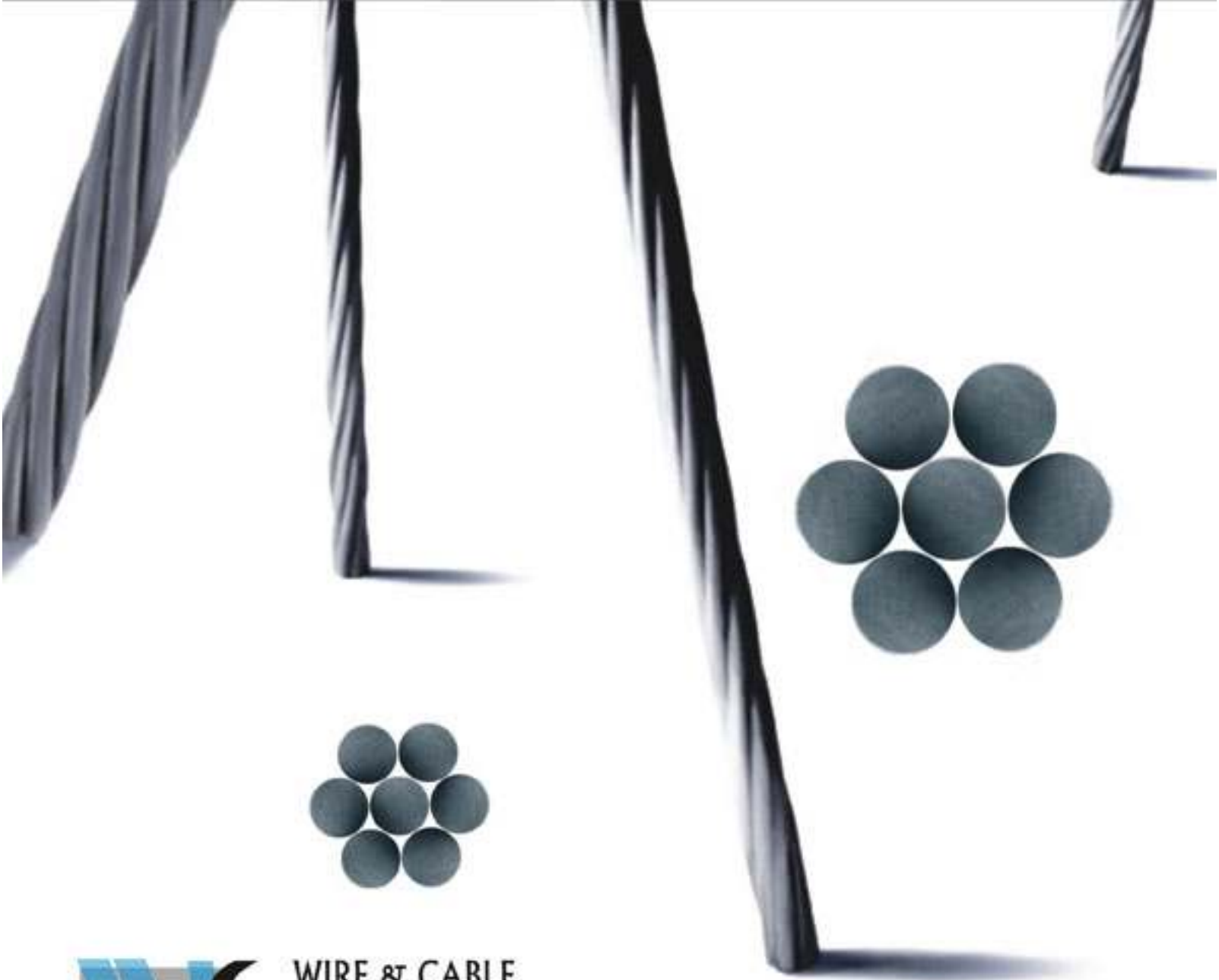


Figure 1 Distance from cut section (Inches)





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