Güney Çelik	Prestressed Concrete Wire Technical Data Sheet BS	Doc. no	PR.27.TDS.06
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1. Product description

Pc wire is the production of cold drawn wires as rods or coils by heat treatment with prestressing. It is used in concrete sleepers, Prefabricated Industrial buildings, T beams, Concrete pipes and silos.

2. Normative references

- BS 5896 High tensile steel wire and strand for the prestressing of concrete – Specification

3.Mechanical Properties

We can produce plain or intented types.

Steel name	Diameter, mm	Cross-sectional area, mm^2	Tensile strength, Mpa	Mass per metre, g/m	Permitted deviation on mass per metre, %	Characteristic value of maximum force, kN	Maximum value of maximum force, kN	Characteristic value of 0.1% proof force, kN
Y1570C	7,0	38,5	1570	300,7	±2	20	60,4	69,5
Y1620C	4,5	15,9	1620	124,2	±2	15	25,8	29,7
Y1670C	4,0	12,6	1670	98,4	±2	10	21,0	24,2
	5,0	19,6		153,1	±2	15	32,7	37,6
	6,0	28,3		221,0	±2	15	47,3	54,4
	7,0	38,5		300,7	±2	20	64,3	73,9
Y1770C	4,0	12,6	1770	98,4	±2	10	22,3	25,6
	5,0	19,6		153,1	±2	15	34,7	39,9
	6,0	28,3		221,0	±2	15	50,1	57,6
Y1860C	5,0	19,6	1860	153,1	±2	15	36,5	42,0

The modulus of elasticity may be taken to be 205 GPa (kN/mm2).
The nominal mass per metre is calculated from the cross-sectional area and a density of 7.81 kg/dm^3.
See Table 10 for bend limits.
The specified characteristic value of the 0.1% proof force is calculated as 88% of the specified characteristic value of the maximum force, except Y1860C which is 89%.

4. Chemical Properties

The chemical properties of the supplied raw materials according to ISO 16120-4 are given in the table.

	(C %)	(Si %)	(Mn %)	(P %)	(S %)	(Cr %)
C82D2	0,80-0,84	0,10-0,30	0,50-0,70	max 0,020	max 0,025	max 0,10
C86D2	0,84-0,88	0,10-0,30	0,50-0,70	max 0,020	max 0,025	max 0,10

5. Inspection Document

Inspection document 3.1 – EN 10204 on request.

6. Packaging Forms

Package Specification	Coil Size	Bar
Inner Diameter (ID) (mm)	1200-2200	-
Outer Diameter (OD)/L. (mm)	1840-2500	2000-5000
Weight (kg)	1000-1500	1000-1500