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1. Product description

Pc strand is stranding by pre-stressing process using wires produced by cold drawing. While large gaps on structures are economically dealt with Prestressed Concrete Strand, at the same time, large areas can be gained as well with the reduction of concrete cross-section. Also the deformations occurring in the prefabricate systems exposed to dynamic loads can be improved with the drawability feature of the steel.

Bridge / Viaduct beams, Prefabricated Industrial structures, T beams, Concrete pipes and silos, Anchorage and Ground improvement are also used.

2. Normative references

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

3. Mechanical Properties

Steel name	Diameter, mm	Tensile strength, Mpa	Cross- sectional area, mm ²	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
Y1860S7	9,3	1860	52	406,1	±2	96,7	111	85,1
Y1860S7	9,6	1860	55	429,6	±2	102	117	89,8
Y1860S7	11,3	1860	75	585,8	±2	140	161	123
Y1860S7	12,5	1860	93	726,3	±2	173	199	152
Y1860S7	12,9	1860	100	781	±2	186	214	164
Y1860S7	15,2	1860	139	1086	±2	259	298	228
Y1860S7	15,7	1860	150	1172	±2	279	321	246

The modulus of elasticity may be taken to be 195 GPa (kN/mm²).

The nominal mass per metre is calculated from the nominal cross-sectional area and a density of 7.81 kg/dm³.

The specified characteristic value of the 0.1% proof force is calculated for all grades and diameters as 88% of the specified characteristic value of the maximum force.

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
Inner Diameter (ID) (mm)	800 or 900
Traverse (mm)	750
Weight (kg)	2500-4000
Lay Direction	S or Z