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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

- EN 10138-2 Prestressing steels — Part 2: Wire

3. Mechanical Properties

We can produce plain or intended 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	5,0	19,6	1570	153,1	±2	30,8	35,4	27,1
	6,0	28,3		221,0		44,4	51,1	39,1
	7,0	38,5		300,7		60,4	69,5	53,2
	8,0	50,3		392,8		79,0	90,9	69,5
	8,5	56,7		442,8		89,0	102,0	77,4
	8,8	60,8		474,8		95,5	110,0	83,1
	9,0	63,6		496,7		99,9	115,0	86,9
	9,4	69,4		542,0		109,0	125,0	94,8
	9,5	70,9		553,7		111,0	128,0	96,6
Y1620C	4,5	15,9	1620	124,2	±2	25,8	29,7	22,7
	7,11	39,7		310,1		64,3	73,9	56,6
Y1670C	4,0	12,6	1670	98,4	±2	21,0	24,2	18,5
	5,0	19,6		153,1		32,7	37,6	28,8
	5,5	23,8		185,9		39,7	45,7	34,9
	6,0	28,3		221,0		47,3	54,4	41,6
	6,5	33,2		259,3		55,4	63,7	48,8
	6,9	37,4		292,1		62,5	71,9	55,0
	7,0	38,5		300,7		64,3	73,9	56,6
	7,5	44,2		345,2		73,8	84,9	64,9
	8,0	50,3		392,8		84,0	96,6	73,9
Y1770C	3,0	7,1	1770	55,5	±2	12,6	14,5	11,1
	3,2	8,0		62,5		14,2	16,3	12,5
	4,0	12,6		98,4		22,3	25,6	19,6
	4,5	15,9		124,2		28,1	32,3	24,7
	5,0	19,6		153,1		34,7	39,9	30,5
	5,5	23,8		185,9		42,1	48,4	37,0
	6,0	28,3		221,0		50,1	57,6	44,1
	7,0	38,5		300,7		68,1	78,3	59,9
Y1860C	3,0	7,1	1860	55,5	±2	13,2	15,2	11,7
	4,0	12,6		98,4		23,4	26,9	20,8
	5,0	19,6		153,1		36,5	42,0	32,5
	6,0	28,3		221,0		52,6	60,5	46,8
	7,0	38,5		300,7		71,6	82,3	63,7

The modulus of elasticity (E) may be taken by convention as equal to 205 GPa (kN/mm²).

Plain wires shall have an ovality of ≤ 1 % of the nominal diameter.

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 grade Y1570C, with diameters over 8 mm as 87 % of the specified characteristic value of the maximum force;

wire you desire...



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- For the grade Y1860C for all diameters as 89 % of the specified characteristic value of the maximum force;
- For all other 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	Bar
Inner Diameter (ID) (mm)	1200-2200	-
Outer Diameter (OD)/L. (mm)	1840-2500	2000-5000
Weight (kg)	1000-1500	1000-1500

wire you desire...