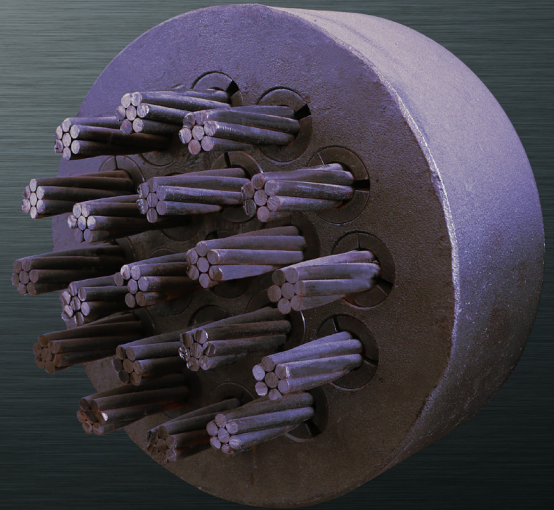


Prestressed wire and PC strand require high tensile strength and consistent qualities to withstand the highest mechanical stresses.



**British Steel supplies high carbon wire rod for prestressed concrete (PC) strand for the reinforcement of concrete structures in bridge, railway, civil and residential construction.**

Our short-cycle rolling programme allows us to offer excellent responsiveness, working with our customers to meet the demands of their downstream construction production schedules.

Our technical team is available to offer advice from point of enquiry and our integrated production process facilitates rigorous inspection at all stages to deliver precisely the steel you need – just when you need it.

#### Rigorous testing for quality assurance

The quality of our products is assured by manufacturing controls and rigorous testing and inspection procedures. Our products meet the required standards for the most challenging and safety-critical applications.

British Steel is accredited to both ISO 9001:2015 for our quality management system and ISO 14001:2015 for our environmental management system.

#### Delivering quality

Dispatch of wire rod coils through our purpose-built wire rod service centre or Automated Coil Warehouse allows us to offer an efficient delivery service. These streamlined dispatch facilities are equipped with bespoke handling equipment which, combined with minimal handling and an anti-abrasive flooring system, minimises storage and handling damage.

#### Technical support from our specialists

Our team of experienced metallurgists provides dedicated technical support to our customers, including selection of the most appropriate steel grade and size, detailed metallurgical analysis to solve specific processing problems, and the development of new and more advanced grades of steel for increasingly demanding applications.

#### Wire rod dimensions

<b>Rod diameter</b>	8.5 - 13.0mm in 0.5mm increments
<b>Coil weight</b>	1,800 - 2,200kg
<b>Coil length</b>	1,400 - 1,650mm

<b>Coil dimensions</b>	Outside diameter: 1,250mm max
	Inside diameter: 850mm min

**Note:** Subject to technical referral alternative diameters may be available.

## PC strand steel grades

The table below indicates the standard chemical limits for British Steel's X85CR grade (with typical values below). Quoted limits are based on ladle/heat analysis. Other grades may be considered, subject to technical referral.

### X85CR grade

Grade	Chemical composition											
	C	Si	Mn	P	S	Cr	Cu	Mo	Ni	N	Al	V
X85CR	0.80-0.85	0.15-0.30	0.65-0.85	0.020 max	0.025 max	0.20-0.30	0.10 max	0.02 max	0.10 max	0.007 max	0.010 max	0.01 max
Typical	0.82-0.84	0.20-0.25	0.78-0.83	< 0.015	< 0.020	0.25-0.29	< 0.05	< 0.010	< 0.05	< 0.006	< 0.005	< 0.005

### Surface, scale, size and shape

The maximum surface imperfection depth is in accordance with EN 16120-4 clause 5.4 table 3. Dimensional tolerances are in accordance with EN 16124 class T2 (ie +/- 0.25mm, 0.40mm max ovality). Material will be suitable for scale removal by mechanical means.

### Mechanical properties

The as-rolled ultimate tensile strength (UTS) and reduction of area (RoA) will be measured and reported (based on batch average testing). Selected UTS ranges are as follows:

Diameter (mm)	UTS (MPa)	RoA (%)
11.0	1150 - 1250	25 min
13.0	1130 - 1230	25 min

**Note:** Decarburisation, cleanliness, core segregation and microstructure are not routinely measured but are expected to be compliant with the minimum requirements of EN 16120-4. Enquiries for enhanced limits should be referred to our technical team.

### Certification

Our PC strand grade is supplied in accordance with EN 10204 3.1, demonstrating our compliance with the standards for chemical composition and tensile properties.

## BRITISHSTEEL.CO.UK/WIRE-ROD

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WRPCD:ENG:102021

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