

**A. DIMENSIONS AND MASS**

NOMINAL DIAMETER mm	CROSS SECTIONAL AREA $cm^2$	Mass per metre $Kg/m$
6 <sup>a</sup>	0.283	0.222
7 <sup>a</sup>	0.385	0.302
8	0.503	0.395
9 <sup>a</sup>	0.636	0.499
10	0.785	0.616
12	1.131	0.888
16	2.011	1.579
20	3.142	2.466
25	4.909	3.854
32	8.042	6.313
40	12.566	9.864
50	19.63	15.4

a Preferred diameters for the manufacture of welded fabric to BS 4483 only.

## B. MECHANICAL PROPERTIES

### Absolute Minimum And Maximum Values Of Tensile Properties

Performance Characteristic	Minimum Value			Maximum Value		
	B500A	B500B	B500C	B500A	B500B	B500C
YS, MPa	485	485	485	650	650	650
TS / YS	1.03 <sup>a</sup>	1.06	1.13	N / A	N / A	1.38
Agt, %	2.0 <sup>b</sup>	4.0	6.0	N / A	N / A	N / A

a 1.01 for sizes below 8 mm

b 0.8 for sizes below 8 mm

### Characteristic Tensile Properties

	Yield Strength , Re MPa	Tensile / Yield Strength ratio Rm / Re	Total elongation at maximum force, Agt %
B 500 A	500	1.05 <sup>a</sup>	2.5 <sup>b</sup>
B 500 B	500	1.08	5.0
B 500 C	500	≥1.15 , <1.35	7.5

Rm/Re characteristic is 1.02 for size below 8 mm.

Agt characteristic is 1.0 % for size below 8 mm.

Values of Re specified are characteristic with p = 0.95

Values of Rm/Re and Agt specified are characteristic with p = 0.90

Calculated the values of Rm and Re using the nominal cross sectional area.

**C. CHEMICAL COMPOSITION**

	Carbon <sup>a</sup>	Sulphur	Phosphorus	Nitrogen <sup>b</sup>	Copper	CEV
Cast Analysis	0.22	0.05	0.05	0.012	0.80	0.50
Product Analysis	0.24	0.055	0.055	0.014	0.85	0.52

a : it is permitted to exceed the maximum values of carbon by 0.03% by mass, provided that the carbon equivalent value is decreased by 0.02% by mass.

CEV :  $C + Mn/6 + (Cr+Mo+V)/5 + (Ni + Cu)/15$

b : Higher Nitrogen contents are permissible if sufficient quantities of nitrogen binding elements are present.