UCB DATA SHEET

Continuously Cast Iron

UNIBAR 200

(EN-GJL-200C, EN 16482)
GUIDANCE ONLY

UNIBAR 200

Characteristics

Unibar 200 is the softest grade in the Unibar portfolio, offering exceptional machinability and excellent surface finish, but limited strength and wear resistance. Noise, vibration damping and thermal conductivity are excellent in this grade. Conforms with EN-GJL-200C (EN 16482).

Size Range

UNIBAR STANDARD SIZES AND SUPPLY	
Round	25mm – 700mm
Square	25mm x 25mm – 625mm x 625mm
Rectangle	Up to 750mm x 550mm
Supply condition	As-cast, turned, peeled, milled and cut
Length	Standard 3080mm, other lengths available

Chemistry

ELEMENT	TYPICAL %
Carbon	2.95 – 3.45
Silicon	2.10 – 2.90
Manganese	0.55 – 0.75
Sulphur	0.04 – 0.07
Phosphorous	0.1 – 0.2
Others/Alloying	Residual
Iron	Balance

Typical Ranges (Analysis at the discretion of UCB)

Mechanical Properties

MATERIAL GRADE	MATERIAL SECTION mm	TENSILE STRENGTH N/mm² MINIMUM	HARDNESS (HB)	MATRIX
Unibar 200	20 < D ≤ 50	155	120 – 200	Predominantly Ferritic
	50 < D ≤ 100	140		
	100 < D ≤ 200	125		
	200 < D ≤ 400	115		

Taken from mid-radius of cast bar, not separately cast test bar.

Brinell Hardness (HB)

Test 10mm dia Ball 3000Kg load depending on section size. Hardness readings are taken across the entire section of the bar. Hardness values for rectangles depend on the ratio of height to width and can be supplied upon request.

Microstructure

Contains type 'A' graphite flakes in accordance with ISO 945. The rim contains fine type 'D' and 'E' interdendritic graphite. The matrix structure is predominantly ferritic with less than 10% pearlite throughout.



(Photo 100x magnification)

Heat Treat Response

Unibar 200 is not recommended for hardening or heat treatment applications.

Grade colour code

Density

7.3 g/cc