

UCB DATA SHEET

Continuously Cast Iron:

UCB Grade Unibar 200 (Guidance only)



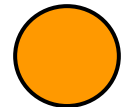
Characteristics: Offers exceptional machinability and excellent surface finishes but limited strength and wear resistance. Noise and vibration damping are good in this grade. Compares with standard **EN-1561-GJL-200 GG20 and Meehanite GE200**

Unibar Profile and Size Range	
Round	20mm - 500mm diameter
Square	Up to 410 mm x 410mm
Rectangle	Narrow side 25mm up to a maximum 650mm x 280mm or 550mm x 380mm
Ingots	400mm - 780mm diameter x 1.2 metre long (proof machined)
Ingot Blocks	up to 550mm x 500mm x 1400mm long (proof machined)
Standard Length	Continuously Cast Bar 3 metres (other lengths available upon request)
Supply condition	As-cast, turned and peeled (Rounds). As-cast milled (proof machined) and saw cut (rectangles and squares)
Non Standard	Sizes/shapes to customer design available on special order and subject to discussion.

Chemistry (Typical Ranges):
(Subordinate to Mechanical Properties)

Element	Typical %
Carbon	2.9 - 3.65
Silicon	1.8 - 2.90
Manganese	0.40 - 0.70
Sulphur	0.10 Max
Phosphorous	0.30 Max
Others/Alloying	Residual
Iron	Balance

Grade colour code



Mechanical Properties: (As taken from mid-radius of cast bar, not separately cast test bar)

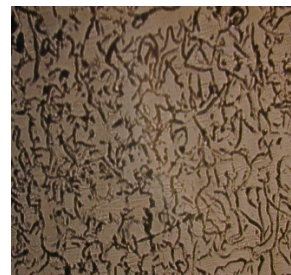
Material specification	Material Section	Anticipated Values N/mm ² (Taken from casting/bar)
Unibar 200 EN-GJL-200:1997	20mm - 40mm	155
	40mm - 80mm	130
	80mm - 150mm	115
	150mm - 300mm	105

Reference EN-1561-GJL-200 Table 1 Page 5

Brinell Hardness: (Range) 120-200 BHN (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 ASTM A 247. 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 suitable for hardening applications.

Density: 7.2 g/cc

United Cast Bar Ltd

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www.unitedcastbar.com