

UCB DATA SHEET

Continuously Cast Iron:

UCB Grade Unibar 250 (Guidance only)



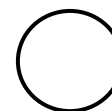
Characteristics: Offers a good combination of strength and wear resistance, while still possessing good machinability and produces excellent surface finishes. Noise and vibration damping are excellent in this grade. Compares with standard EN-1561-GJL-250 GG25 and Meehanite GD250.

Unibar Profile and Size Range	
Round	25mm - 645mm + diameter
Square	Up to 520 mm x 520mm
Rectangle	Unibar is produced in a wide range of combinations, in height and width, up to 650mm x 510mm and 620mm x 370mm for example, other sizes to customer requirements can also be considered after consultation.
Ingots	Up to 1200mm diameter x 2100mm metre long (proof machined).
Ingot Blocks	Up to 800mm x 750mm x 2100mm 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/profiles to customer design available on special order, subject to discussion.

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

Element	Typical %
Carbon	2.95 - 3.45
Silicon	2.1 - 2.90
Manganese	0.55 - 0.75
Sulphur	0.04 - 0.07
Phosphorous	0.1 - 0.2
Others/Alloying	Residual
Iron	Balance

Grade colour code



White or no colour

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 250 EN-GJL-250:1997 (GG25)	20mm - 40mm	225
	40mm - 80mm	195
	80mm - 150mm	170
	150mm - 300mm	155

Reference EN-1561-GJL-250 Table 1 Page 5

Brinell Hardness: (Range) 160-230 (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 A247. The rim contains fine Type 'D' and 'E' interdendritic graphite. The matrix is greater than 50% pearlitic. The rim is predominantly ferritic, and may contain up to 5% dispersed fine carbides.
(Photo 100x magnification)



Heat Treat Response: Unibar 250 is not recommended for hardening applications and heat treatment.

Density: 7.3 g/cc

United Cast Bar Ltd

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www.unitedcastbar.com