

Continuously Cast Iron

Unibar 350 (EN 16482 EN GJL-350C) (Guidance only)

Characteristics:

Unibar 350 is a special grade alloyed to achieve the specified properties, gives excellent wear resistance and strength. Suitable for all heat-treatment applications, the pearlitic structure giving a better response compared to Unibar 200, 250 and 300, while still possessing reasonable machinability and producing a good surface finish after machining. Noise and vibration damping are good in this grade. Compares with standard EN-1561-GJL-350 and GG35

Size Range:

UNIBAR STANDARD SIZES AND SUPPLY.	
Round	25mm – 700mm
Square	25mmx 25mm – 550mm x 550mm
Rectangle	Up to 650mm x 520mm
Supply condition	As-cast turned peeled milled cut.
Length	Standard 3080mm other lengths available

Chemistry:

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

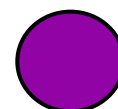
Typical Ranges: (Analysis at the discretion of UCB)

Mechanical Properties:

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

MATERIAL GRADE	MATERIAL SECTION	ANTICIPATED TENSILE VALUES N/mm ²	HARDNESS (BHN)	MATRIX
Unibar 350 NO EURO-NORM	20 < D ≤ 50	315	230 - 300	Pearlitic
	50 < D ≤ 100	280		
	100 < D ≤ 200	250		
	200 < D ≤ 400	225		

Grade
colour code



Density: 7.3 g/cc

Brinell Hardness (BHN): 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 zone contains fine types 'D' and 'E' interdendritic graphite. The core matrix is greater than 95% pearlitic. The rim matrix is a ferrite/pearlite mixture. The rim may contain up to 5% dispersed fine carbides.

(Photo 100x magnification)



Heat Treat Response: Unibar 350 is ideal for all conventional methods of heat treatment, with ability to through harden; hardness levels of up to Rc 50 are achievable.