United Cast Bar

UCB DATA SHEET

Continuously Cast Iron

UNIBAR NR-F1

(EN-GJLA-XNiCuCr15-6-2)
GUIDANCE ONLY

UNIBAR NR-F1

Characteristics

Unibar NR-F1 is an austenic flake graphite (Ni-resist) iron offering exceptional resistance to heat, corrosion and wear and is non-magnetic at any temperature. It has good machinability, noise and vibration damping. Compares with standard EN-GJLA-XNiCuCr15-6-2.

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	3.00 Max
Silicon	1.50 to 2.8
Manganese	0.50 to 1.50
Sulphur	0.10 Max
Phosphorous	0.3 Max
Nickel	13.5 to 17.5
Copper	5.50 to 7.50
Chromium	1.00 to 2.50

Typical Ranges (Analysis at the discretion of UCB)

Mechanical Properties

MATERIAL SPECIFICATION	TENSILE STRENGTH N/mm² MINIMUM	HARDNESS (HB)
Unibar NR-F1 EN-GJLA-XNiCuCr15-6-2	138 - 172	131 - 183

Due to the potential for thermal centre line shrinkage tensile strengths may be lower than indicated.

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 zone contains fine types 'D' and 'E' interdendritic graphite. The matrix is fully austenitic with up to 10% alloy carbides.



(Photo 100x magnification)

Heat Treat Response

Unibar NR-F1 cannot be hardened.

Grade colour code



Density

7.3 g/cc