

NI-BASE ALLOYS

Available Product Shapes

Round Ground Bar

Product Description

Of all the precipitation hardened nickel base superalloys, the L718 is the best known. And rightly so - the high-strength BÖHLER L718 API has excellent corrosion resistance in CO₂-H₂S and Cl-containing atmospheres, coupled with high-temperature resistance combined with very good cold toughness values. This combination makes the BÖHLER L718 API the preferred material for oil & gas applications, such as deep hole drilling tools and wellbore components of all types.

Properties

L718 API can be ordered in two different strength levels. The variant L718 API Designation 120K has a minimum yield strength of 827 MPa (120 ksi) with very good cold toughness values and a maximum hardness of 39 HRC. For applications where higher strength or reduced wall thickness is required, the L718 API Designation 150K is the perfect choice. An optimized heat treatment developed by BÖHLER Edelstahl enables a minimum yield strength of 1034 MPa (150 ksi) with the same toughness, and a maximum hardness of 45 HRC.

Material designation		Standards	
N07718	UNS	Others *	API6A
NiCr19NbMo/ NiCr19Fe19Nb5Mo3	EN	API 6ACRA	Others
Alloy 718API	Market grade	NACE MR0175 / ISO 15156-3	

Conditions apply

Chemical composition

C	Cr	Mo	Ni	Ti	Al	Nb	Fe
0.01	18.00	3.00	54.00	1.00	0.50	5.00	18.00

Physical Properties at 20°C / 68°F

Density	8.2 / 0.3	[kg/dm ³ / lb/in ³]
Thermal conductivity	11.4 / 6.59	[W/(m.K) / BTU (IT) ft/hr/ft ² /F]
Specific heat	430 / 102.7	[J/(kg.K) / BTU (IT) lb/F]
Spec. electrical resistance	1.25 / 0.001	[Ohm.mm ² /m / Ohm.inch ² /ft]

For more information see www.voestalpine.com/boehler-edelstahl

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ONE STEP AHEAD.