NI-BASE ALLOYS

Application Segments

Oil & Gas / CPI

Available Product Variants

Long Products* | Semi-Finished Products / Billet | Plates

* Presented data refer exclusively to long products. Please observe the detailed explanations at the end of the data sheet (pdf).

Product Description

BÖHLER L004 belongs to the group of highly corrosion-resistant nickel-chromium-molybdenum alloys with very low carbon, iron and silicon content and has good corrosion resistance, even at elevated temperatures. The combination of chromium with a high molybdenum content gives BÖHLER L004 exceptional resistance to a wide range of chemical media: e.g. contaminated, reducing mineral acids and good resistance under reducing and oxidizing conditions, e.g. hot, contaminated media such as sulphuric acid, nitric acid, dry chlorine, formic acid, acetic acid, solvents, chlorine and chloride-containing media. BÖHLER L004 exhibits a significantly reduced tendency to form precipitates in the temperature range between 650 and 1,040 °C due to the alloy composition. This improves resistance to intergranular corrosion. Due to the high nickel content, the material is practically insensitive to chloride-induced stress corrosion cracking even in hot chloride solutions. Due to its excellent thermal stability, the alloy can be welded without any problems and is generally used in the welded condition. Suitable for pressure vessels with wall temperatures from-196°C to 400°C.

Process Melting

VIM + ESR or Airmelted + ESR

Applications

- Components for Chemical plants (incl. LNG, FGD, Urea, LDPE, etc.)
- CPI (incl. LNG, Urea)
- Tubular Products, Flanges, Fittings
- Oil & Gas, CPI & Renewables
- Components for the recycling industry
- Oil & Gas / CPI
- Valves and Actuators
- Paper and Pulp Industry / Printing
- Components for food processing and animal feed
- Other Oil and Gas + CPI components
- Heat Exchanger

Technical data

Material designation	
Alloy C4	Market grade
2.4610	SEL
NiMo16Cr16Ti	EN
N06455	UNS

Standards	
17744	DIN
17752	
B574	ASTM
NACE MR0175 / ISO 15156	Others
VdTÜV WB424	

Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	Co	Ti	Fe
max. 0.009	max. 0.050	max. 1.00	max. 0.020	max. 0.010	14.50 to 17.50	14.00 to 17.00	REM	max. 2.00	max. 0.70	max. 3.00

Refers to VdTÜV WB424

Delivery condition

Solution Annealed + Quenched

Tensile Strength (MPa)	700 to 900
Yield Strength (MPa)	min. 280

Round Bars and Wire Rod (if any)

Diameter* mm		
ROLLED		
5.00	-	13.50
5.00	-	101.60
FORGED		
101.70	-	355.60

* Diameter 5.00 - 13.50 mm available as Wire Rod.

Diameter 5.00 - 101.6 mm round bars.

More information regarding MOQ, lengths and tolerances upon request.

voestalpine BÖHLER Edelstahl GmbH & Co KG
Mariazeller Straße 25
8605 Kapfenberg, AT
T. +43/50304/20-0
E. info@bohler-edelstahl.at
https://www.voestalpine.com/bohler-edelstahl/de/

voestalpine
ONE STEP AHEAD.