NI-BASE ALLOYS

Application Segments

Aerospace

Available Product Variants

Long Products

Product Description

BÖHLER L303 is a corrosion and heat resistant nickel alloy in the form of bars, forging and forging stock.
The alloy's high-temperature strength is derived from its solid solution strengthening elements of molybdenum, cobalt, and chromium, and its age-hardening elements, aluminum and titanium. Its strength and stability ranges are higher than those typically available for Alloy 718.
It is widely used typically for rotating parts, such as compressor and gas turbine blades, disks, hubs, shafts bolts and spacers requiring high strength up to 1500°F (816°C) and oxidation resistance up to 1750°F (954°C) but usage is not limited to such applications.

Process Melting

VIM + VAR

Applications

- Turbine and Engine Parts (Aerospace)
- Other Aerospace Components

Technical data

Material designation	
Waspaloy	Market grade
2.4654	SEL
NiCr19Co14MoTi	EN
NiCr20Co13Mo4Ti3Al	EN
NC20K14	EN
N07001	UNS

Standards	
B637	ASTM
5704	AMS
5706	AMS
5707	AMS

Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Co	Ti	Al	B	Fe	Pb	Bi	Se	Ag
0.02 to 0.10	max. 0.15	max. 0.10	max. 0.015	max. 0.015	18.00 to 21.00	3.50 to 5.00	REM	max. 0.10	12.00 to 15.00	2.75 to 3.25	1.20 to 1.60	0.003 to 0.010	max. 2.00	max. 5 ppm	max. 0.3 ppm	max. 3 ppm	max. 5 ppm

Related to AMS5704

Delivery condition

Solution annealed, stabilized and precipitation hardened	
Hardness (HB)	341 to 401
Tensile Strength (MPa)	min. 1,207
Yield Strength (MPa)	min. 827

Round Bars and Wire Rod (if any)

Diameter mm			MOQ ex mill kg	Length m			Tolerance
ROLLED							
15.00	-	55.00	700	3.00	-	4.00	IT h/k 12
FORGED							
101.60	-	203.20	2,200	2.00	-	6.00	IT h/k 12

If other available product variants are listed in addition to long products, please note that these may differ in terms of melting process, technical data, delivery and surface condition as well as available product dimensions. For mandatory technical specifications, other requirements and dimensions, please contact our regional voestalpine BÖHLER sales companies. The data contained in this brochure is merely for general information and therefore shall not be binding on the company. We may be bound only through a contract explicitly stipulating such data as binding. Measurement data are laboratory values and can deviate from practical analyses. The manufacture of our products does not involve the use of substances detrimental to health or to the ozone layer.

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.