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 (Aerosp)
- Aerospace
- Other Aerospace Comps.

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 0.1	max. 0.15	max. 0.1	max. 0.015	max. 0.015	18 to 21	3.5 to 5	REM	max. 0.1	12 to 15	2.75 to 3.25	1.2 to 1.6	0.003 to 0.01	max. 2	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 | ksi)	min. 1,207 | 176
Yield Strength (MPa | ksi)	min. 827 | 120

Round Bars and Wire Rod (if any)

Diameter						MOQ ex mill		Length						Tolerance
mm			inch			kg	lbs	m			ft			
ROLLED														
15.00	-	55.00	0.591	-	2.165	700	1,543	3.00	-	4.00	9.84	-	13.12	IT h/k 12
FORGED														
101.60	-	203.20	4.000	-	8.000	2,200	4,850	2.00	-	6.00	6.56	-	19.69	IT h/k 12

For additional specifications and other sizes please contact BÖHLER Edelstahl - Special Materials Aerospace

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voestalpine
ONE STEP AHEAD.