

NI-BASE ALLOYS

Application Segments

Aerospace

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 L718HCB is a corrosion and heat resistant nickel alloy - precipitation hardenable - in the form of bars, forging and forging stock. High resistance to creep and stress-rupture up to 1300°F (704°C) and oxidation resistance up to 1800°F (982°C). High duty parts and components for gas turbines, aerospace engines, high-speed airframe parts such as disks, buckets, spacers and high temperature bolts and fasteners.

Compared to standard alloy 718 AMS limits, Cb in L718HCB is adjusted in the upper range of the standard limits in order to enhance mechanical properties. L718HCB is typically used for high temperature bolting and fasteners.

Process Melting

VIM + VAR

Applications

> Other Aerospace Comps.
> Turbine and Engine Parts (Aerosp)
> Aerospace

Technical data

Material designation		Standards	
Alloy 718	Market grade	5662	AMS
2.4668	SEL	5962	
NiCr19NbMo/ NiCr19Fe19Nb5Mo3	EN	5663	
NC19FCNb			
N07718	UNS		

Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Co	Ti	Al	Nb	B	Fe	Pb	Bi	Se
max. 0.08	max. 0.35	max. 0.35	max. 0.015	max. 0.015	17 to 21	2.8 to 3.3	50 to 55	max. 0.3	max. 1	0.65 to 1.15	0.2 to 0.8	4.75 to 5.5	max. 0.006	REM	max. 5ppm	max. 0.3ppm	max. 3ppm

Related to AMS5662

Delivery condition

Solution annealed	
Hardness (HB)	max. 277 bars and forging stock, max 254 mm diameter

Round Bars and Wire Rod (if any)

Diameter		MOQ ex mill		Length		Tolerance
mm	inch	kg	lbs	m	ft	
ROLLED						
5.01	- 11.00	0.197	- 0.433	250	551	3.00 - 4.00 9.84 - 13.12 IT h/k 9
12.20	- 40.00	0.480	- 1.575	550	1,213	3.00 - 4.00 9.84 - 13.12 +/-0,1mm

Long Products: For additional specifications, technical requirements, and other dimensions, please contact our regional voestalpine BÖHLER sales companies.

Sheet & Plates: Product Variant may differ in terms of melting process, technical data, delivery, and surface condition as well as available product dimensions. Please contact voestalpine BÖHLER Bleche GmbH & Co KG.

Semi-Finished Products: Product Variant may differ in terms of melting process, technical data, delivery, and surface condition as well as available product dimensions. Please contact the business unit Semi Finished Products of voestalpine BÖHLER Edelstahl GmbH & Co KG.

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.

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