

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 Components

> Turbine and Engine Parts (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	17.00 to 21.00	2.80 to 3.30	50.00 to 55.00	max. 0.30	max. 1.00	0.65 to 1.15	0.20 to 0.80	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 mm			MOQ ex mill kg	Length m			Tolerance
ROLLED							
5.01	-	11.00	250	3.00	-	4.00	IT h/k 9
12.20	-	40.00	550	3.00	-	4.00	+/-0,1mm

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.