

CORROSION RESISTANT STEELS - MARTENSITIC, SEMI- MARTENSITIC AND FERRITIC STEELS

Application Segments

Aerospace

Product Description

BÖHLER N695SA is a high-grade, vacuum remelted chromium stainless steel of aerospace quality, offering high hardness, wear resistance, and good corrosion resistance in the quenched and tempered condition. Compared to air-melted quality, this steel exhibits improved rolling contact fatigue properties and is typically used for components requiring hardness up to 58 HRC and resistance to wear, corrosion, and oxidation—such as balls, rollers, needles, and rings for corrosion-resistant bearings—although its use is not limited to these applications.

Process Melting

Airmelted + VAR

Applications

- > Other Aerospace Components
- > Bearings
- > Turbine and Engine Parts (Aerospace)
- > Cutting

Technical data

Material designation		Standards	
440C	Market grade	10088	EN ISO
1.4125	SEL	5618	AMS
X102CrMo17	EN		
X105CrMo17			
Z100CD17			
S44004	UNS		

Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	Cu
0.95 to 1.20	max. 1.00	max. 1.00	max. 0.020	max. 0.010	16.00 to 18.00	0.40 to 0.65	max. 0.75	max. 0.50

Related to AMS 5618

Delivery condition

Annealed

Hardness (HB)	max. 255 Bars max 69.85 mm diameter, cold finished
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Annealed

Hardness (HB)	max. 255 Bars above 69.85 mm diameter, hot or cold finished
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Annealed

Tensile Strength (MPa)	max. 896 Wire, cold finished
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Round Bars and Wire Rod (if any)

Diameter mm			MOQ ex mill kg	Length m			Tolerance
ROLLED							
12.50	-	55.00	1,100	3.00	-	4.00	IT h/k 11
55.01	-	120.00	1,200	3.00	-	4.00	IT h/k 11
120.01	-	140.00	1,200	3.00	-	5.00	IT h/k 14
FORGED							
140.01	-	152.40	1,200	2.00	-	5.00	IT h/k 14

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 Edelmetall 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/>

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ONE STEP AHEAD.