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	
440C	Market grade
1.4125	SEL
X102CrMo17	EN
X105CrMo17	EN
Z100CD17	EN
S44004	UNS

Standards	
10088	EN ISO
5618	AMS

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

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

Annealed	
Tensile Strength (MPa)	max. 896 | Wire, cold finished

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.

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ONE STEP AHEAD.