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

Application Segments

Aerospace

Available Product Variants

Long Products* | Plates

* Presented data refer exclusively to long products. Please observe the detailed explanations at the end of the data sheet (pdf).

Product Description

BÖHLER N695 is a Chromium alloyed stainless steel with high hardness, wear resistance and good corrosion resistance in the hardened and tempered condition.
this grade is typically used for parts requiring hardness up to 58 HRC and resistance to wear, corrosion, and oxidation, e.g. balls, rollers, needles and rings for corrosion resistant bearings, but usage is not limited to such applications.

Process Melting

Airmelted

Properties

- Toughness & Ductility : good
- Wear Resistance : very high
- Machinability : good
- Dimensional stability : good
- Polishability : good
- Corrosion resistance : high

Applications

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

Technical data

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

Standards	
5630	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. 0.040	max. 0.030	16.00 to 18.00	0.40 to 0.65	max. 0.75	max. 0.50

Related to AMS 5630

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 and Bars under 12.7 mm diameter, cold finished

Round Bars and Wire Rod (if any)

Diameter mm			MOQ ex mill kg	Length m			Tolerance
ROLLED							
5.01	-	12.49	1,000	3.00	-	4.00	IT h/k 11
12.50	-	55.00	1,000	3.00	-	4.00	IT h/k 11
55.01	-	69.00	1,300	3.00	-	4.00	IT h/k 11
69.01	-	120.00	1,300	3.00	-	4.00	IT h/k 11
120.01	-	130.00	1,200	3.00	-	4.00	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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