

OȚELURI REZISTENTE LA COROZIUNE - OȚELURI MARTENSITICE CĂLITE (PH)

Application Segments

Inginerie

Available Product Variants

Long Products

Product Description

BÖHLER N700 is a martensitic, corrosion-resistant, precipitation-hardenable chromium-nickel-copper steel with high strength and toughness. Further increases in strength can be achieved by cold forming and subsequent precipitation hardening. These products are typically used for parts that require higher corrosion resistance than the usual 13% or 17% chromium steels and high strength. Various remelting processes are used to improve steel purity and homogeneity. (ESR, PESR,VAR). Certain processing methods and operating conditions can make these products susceptible to stress corrosion cracking. For applications such as bolting where stress corrosion cracking is possible, the product should be aged for at least 4 hours at the highest temperature compatible with the strength requirements, but in no case lower than 552 °C. Typical engineering applications include surgical and dental instruments as well as aerospace components, reactor construction, highly stressed pump parts, springs and ship shafts.

Process Melting

Topit în aer + refulat

Applications

- > Inginerie civilă și mecanică
 - > Arbori
 - > Elemente de fixare, șuruburi, piulițe
 - > Components
- > Inginerie mecanică
 - > Alte componente
 - > Turnare prin injecție
 - > Filling
- > Matrite de injecție și șuruburi pentru prelucrarea materialelor plastice ranforsate cu fibră de sticlă
 - > Pompe și componente de înaltă presiune
 - > Alte componente aerospațiale

Technical data

Material designation		Standards	
17-4 PH	Market grade	10088-3	EN ISO
1.4542	SEL	A564	ASTM
X5CrNiCuNb16-4	EN	F899	
S17400	UNS		
630	AISI		

Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Nb
max. 0.07	max. 0.70	max. 1.50	max. 0.040	max. 0.015	15.0 to 17.0	max. 0.60	3.0 to 5.0	3.0 to 5.0	5xC to 0.45

Related to SEL 1.4542

Delivery condition**Soluție recoaptă + călire**

Hardness (HB)	max. 360
Tensile Strength (MPa)	max. 1,200

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 Edelstahl 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/>