

FERRITIC AND MARTENSITIC STEELS, INCL. PRECIPITATION HARDENING STEELS

Available Product Shapes

Long Products	Plates
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Product Description

Hardened cutting tools with excellent edge-holding property, such as knife blades, cutting surgical instruments, rotary knives for the meat processing industry, plate and knife-edge fulcrums, corrosion resistant roller bearings, valve needles and pistons for refrigerating machines.

Properties

- Good toughness & ductility
- Very high wear resistance
- Good machinability
- Good dimensional stability
- Good polishability
- High corrosion resistance

Applications

- > Comp. for Chemical plants (incl. LNG, FGD, Urea, LDPE, etc.)
- > General Components for Mechanical Engineering
- > Other Oil and Gas + CPI comps.
- > Tubular Products, Flanges, Fittings
- > Medical Instruments & Implants
- > Custom Hand Knives
- > Machine knife (for producers)
- > Packaging
- > CPI (inc. LNG, Urea)
- > Food processing Industry
- > Mechanical Engineering / Machine Building General
- > Shearing / Machine Knives
- > Pill punching dies

Material designation	
1.4528	SEL
X105CrCoMo18-2	EN

Chemical composition (wt. %)

C	Si	Mn	Cr	Mo	V	Co
1.08	0.40	0.40	17.30	1.10	0.10	1.50

Delivery condition

Annealed

Hardness	max. 265 HB
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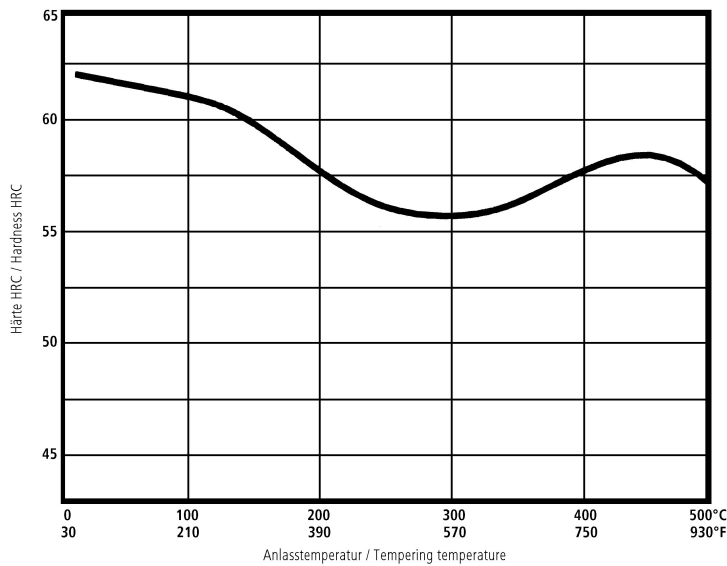
Heat treatment

Annealing

Temperature (°C °F)	800 1472 to 850 1562	Furnace
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Hardening and Tempering

Temperature (°C °F)	1030 1886 to 1080 1976	Oil
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Physical Properties

Temperature (°C °F)	20 68
Density (kg/dm ³ lb/in ³)	7.7 0.28
Thermal conductivity (W/(m.K) BTU (IT) ft/hr/ft ² /F)	15 8.67
Specific heat (J/(kg.K) BTU (IT) lb/F)	430 102.7
Spec. electrical resistance (Ohm.mm ² /m 10 ⁻⁴ Ohm.inch ² /ft)	0.8 3.78
Modulus of elasticity (10 ³ N/mm ² 10 ³ ksi)	223 32.34

Thermal Expansions

Temperature (°C °F)	100 212	200 392	300 572	400 752	500 932
Thermal expansion (10 ⁻⁶ m/(m.K) 10 ⁻⁶ inch/(inch.F))	10.4 5.778	10.8 6	11.2 6.222	11.6 6.444	11.9 6.611

For more information see www.voestalpine.com/boehler-edelstahl

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@boehler-edelstahl.at

www.voestalpine.com/boehler-edelstahl

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ONE STEP AHEAD.