



钢铁之家

www.steels.org.cn

全球钢号百科!

Global Steel Grade Encyclopedia



涵盖的行业或国家与地区类别



美国材料与试验协会

GJB

国家军用标准



动力机械工程师协会

EU

前欧洲标准化

AISI

美国钢铁学会



德国工业标准

AMS

航空航天材料规范



国际标准

JASO

日本汽车标准组织

EN

欧洲标准

JB

中国机械行业标准

UNS

统一编号系统

UNI

意大利标准



美国机械工程师协会

SS

瑞典标准



国家标准



日本工业标准

FERRITIC AND MARTENSITIC STEELS, INCL. PRECIPITATION HARDENING STEELS

Available Product Shapes

Long Products

Plates

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 (incl. 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

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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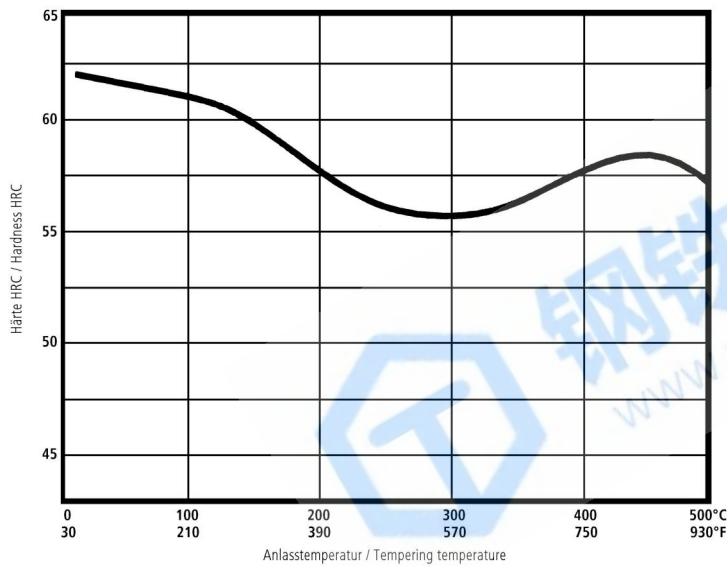
Heat treatment

Annealing

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

Temperature (°C / °F)	1030 / 1886 - 1080 / 1976	Oil
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Physical Properties at 20°C / 68°F

Density	7.7 / 0.28	[kg/dm ³ / lb/in ³]
Thermal conductivity	15 / 8.67	[W/(m.K) / BTU (IT) ft/hr/ft ² /F]
Specific heat	430 / 102.7	[J/(kg.K) / BTU (IT) lb/F]
Spec. electrical resistance	0.8 / 0	[Ohm.mm ² /m / Ohm.inch ² /ft]
Modulus of elasticity	223 / 32.34	[10 ³ N/mm ² / 10 ³ ksi]

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/bohler-edelstahl

