

TOOL STEELS

HARDENABLE CORROSION RESISTANT STEEL

Application Segments

Plastic Mould

Cold Work

Granulometria disponibile

Prodotti lunghi

Descrizione del prodotto

Martensitic chromium steel with high carbon content and molybdenum addition.

Proprietà

- > Durezza e duttilità : buono
- > Resistenza all'usura : molto alto
- > Lavorabilità : buono
- > Stabilità dimensionale : buono
- > Lucidabilità : buono
- > Resistenza alla corrosione : buono

Applicazioni

- > Stampaggio a iniezione
- > Pharmaceutical industry like pill punches and -dies
- > Extrusion screws for plastic processing
- > Foodindustry like extrusion screws, can closing rolls
- > Camere calde
- > Parti standard (stampi, piastre, perni, punzoni)

Dati tecnici

Corrispondenze	
1.4125	SEL
X105CrMo17	EN
440C	AISI

Analisi chimica

C	Si	Mn	Cr	Mo
1,05	0,4	0,4	16,7	0,5

Condizioni di consegna

Ricotto

Durezza (HB)	max. 265
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Trattamento termico

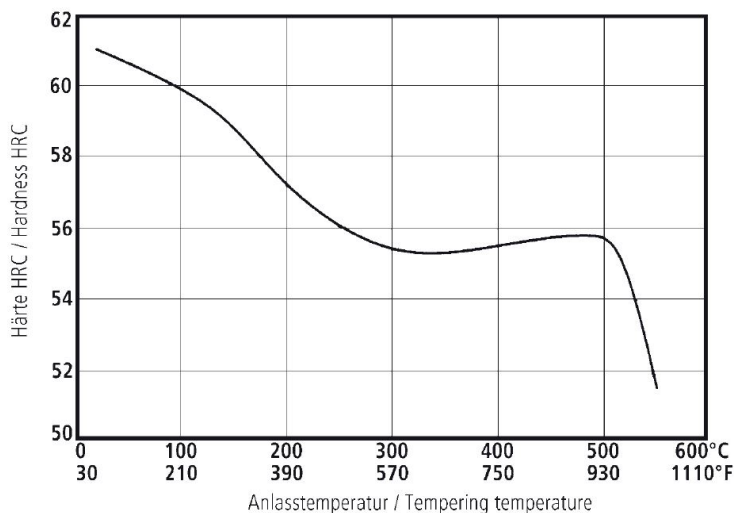
Alleviare lo stress

Temperatura	650 °C	After through heating, keep at temperature for 1 to 2 hours in a neutral atmosphere. Slow furnace cooling
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Tempra e rinvenimento

Temperatura	1.000 a 1.050 °C	Holding time after complete soaking, max. 30 minutes / 25 mm cross section
Temperatura	150 a 350 °C	Tempering treatment required after hardening to the desired working hardness - see tempering chart. Tempering immediately after hardening and quenching to room temperature of min. 2h after complete soaking. Note: Tempering temperatures above 400°C are reducing corrosion resistance and toughness.

Tempering chart



Hardening temperature: 1030°C / 1886°F
Specimen size: square 20 mm

Hardness up to 58 - 60 HRC

Proprietà fisiche

Temperatura (°C)	20
Densità (kg/dm ³)	7,7
Conducibilità termica (W/(m.K))	15
Capacità termica specifica (kJ/kg K)	0,43
Resistenza elettrica specifica (Ohm.mm ² /m)	0,8
Modulo di elasticità (10 ³ N/mm ²)	215

Espansioni termiche

Temperatura (°C)	100	200	300	400	500
Espansione termica (10 ⁻⁶ m/(m.K))	10,4	10,8	11,2	11,6	11,9

For additional specifications and technical requirements, please contact our regional voestalpine BÖHLER sales companies.

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