

TOOL STEELS

HARDENABLE CORROSION RESISTANT STEEL

Application Segments

Plastic Mould

Cold Work

Beschikbare uitvoeringen

Stafstaal

Product omschrijving

Martensitic chromium steel with high carbon content and molybdenium addition.

Eigenschappen

- > Taaiheid & Vervormbaarheid : goed
- > Slijtageweerstand : zeer hoog
- > Bewerkbaarheid : goed
- > Dimensionale stabiliteit : goed
- > Polijstbaarheid : goed
- > Corrosiebestendigheid : goed

Toepassingen

- > spuitgieten
- > Pharmaceutical industry like pill punches and -dies
- > Extrusion screws for plastic processing
- > Foodindustry like extrusion screws, can closing rolls
- > Hot-runners (nl)
- > Standaardonderdelen (matrijzen, platen, pennen, ponsen)

Technische gegevens

Materiaal aanduiding	
1.4125	SEL
X105CrMo17	EN
440C	AISI

Chemische samenstelling

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

Leveringsconditie

gegloeid

Hardheid (HB)	max. 265
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Warmtebehandeling

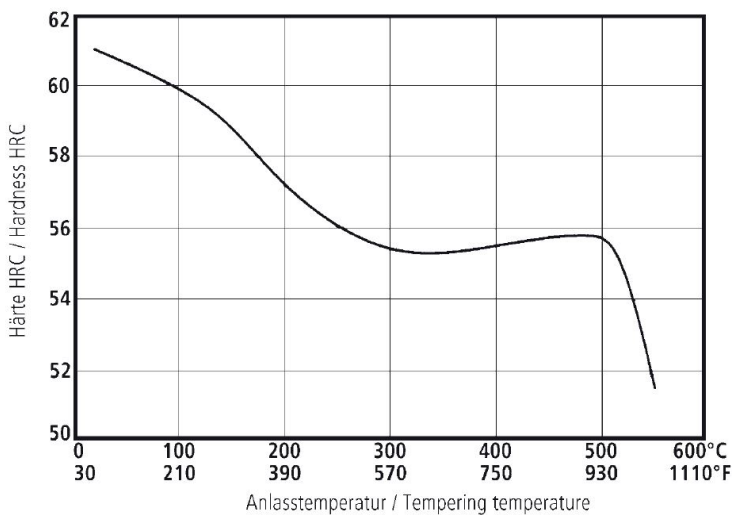
Stress relieving

Temperatuur	650 °C	After through heating, keep at temperature for 1 to 2 hours in a neutral atmosphere. Slow furnace cooling
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Harden en ontlaten

Temperatuur	1.000 naar 1.050 °C	Holding time after complete soaking, max. 30 minutes / 25 mm cross section
Temperatuur	150 naar 350 °C	Tempering treatment required after hardening to the desired working hardness - see tempering chart. Tempering of min. 2h after complete soaking. Tempering shall be made immediately after hardening. After each tempering a cooling RT shall be done.

Tempering chart



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

Hardness up to 58 - 60 HRC

Fysische eigenschappen

Temperatuur (°C)	20
Soortelijk gewicht (kg/dm ³)	7,7
Thermische conductiviteit (W/(m.K))	15
Soortelijke warmte (kJ/kg K)	0,43
Specifieke elektrische weerstand (Ohm.mm ² /m)	0,8
Elasticiteitsmodus (10 ³ N/mm ²)	215

Thermische expansie

Temperatuur (°C)	100	200	300	400	500
Thermische expansie (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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