TOOL STEELS

HARDENABLE CORROSION RESISTANT STEEL

Application Segments

Mucegai din plastic

Available Product Variants

Long Products

Product Description

BÖHLER N695 is a corrosion-resistant, martensitic chromium steel with a high carbon content and added molybdenum.

Properties

- Rezistență și ductilitate : good
- Rezistență la uzură : very high
- Machinability : good
- Stabilitatea dimensională : good
- Poluabilitate : good
- Rezistență la coroziune : good

Applications

- Componente pentru prelucrarea alimentelor și hrana animalelor
- Sisteme Hotrunner
- Materiale plastice ranforsate cu fibră de sticlă
- Șuruburi și butoaie
- Piese standard (matrițe, plăci, pini, perforatoare)
- Turnare prin injecție
- Matrițe de perforare a pastilelor
- Cutting
- Instrumente de tăiere și cuțite tipice
- Industria electronică
- Vytláčanie plastov

Technical data

Material designation	
1.4125	SEL
X105CrMo17	EN
440C	AISI

Chemical composition (wt. %)

C	Si	Mn	Cr	Mo
1.05	0.4	0.4	16.7	0.5

Delivery condition

Recoaptă

Hardness (HB)	max. 285

Heat treatment

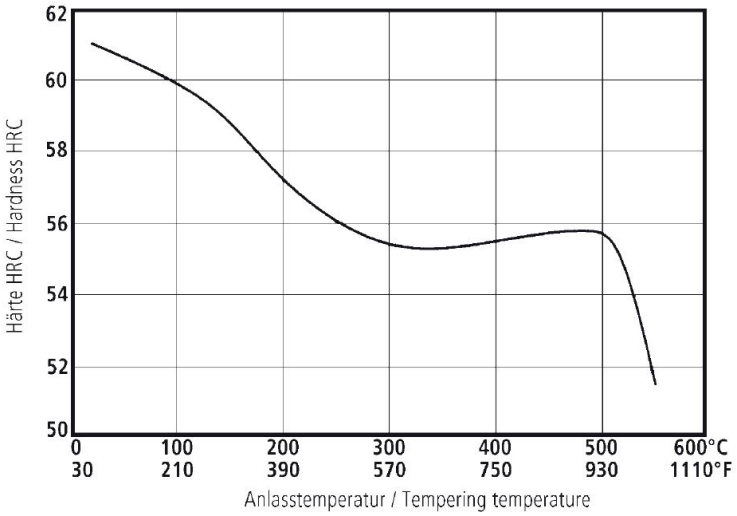
Eliminarea stresului

Temperature	max. 650 °C	Soft annealed material: For stress relief annealing after mechanical processing, hold the material at temperature in a neutral atmosphere for 1-2 hours after complete heating, then slowly cool the furnace at 20°C [68 °F]/hour to 200°C [392 °F], then cool in air.
Temperature		Hardened and tempered material: The temperature for stress relief annealing should be approx. 50°C [122 °F] below the previously selected tempering temperature. Other procedure as for stress relief annealing of soft annealed material.

Călire și revenire

Temperature	1,000 to 1,050 °C	For hardening, hold the material at the specified temperature for 15-30 minutes after complete heating and quench quickly. Cool the material to approx. 30°C [86 °F]. Tempering should take place immediately.
Temperature	100 to 200 °C	Tempering treatment to the desired working hardness after hardening - see tempering diagram. Heat the material slowly and temper once for 1 hour/20 mm material thickness, but at least 2 hours.

Tempering chart



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

Hardness up to 58 - 60 HRc

Physical Properties

Temperature (°C)	**20**
Density (kg/dm³)	7.7
Thermal conductivity (W/(m.K))	15
Specific heat (kJ/kg K)	0.43
Spec. electrical resistance (Ohm.mm²/m)	0.8
Modulus of elasticity (10³N/mm²)	215

Thermal Expansions between 20°C | 68°F and ...

Temperature (°C)	100	200	300	400	500
Thermal expansion (10^{-6} m/(m.K))	10.4	10.8	11.2	11.6	11.9

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