

ACEROS PARA TRABAJO EN FRÍO

Formatos disponibles

Productos largos

Forja de matriz abierta

Chapas

Descripción

Cutting tools (dies and punches) for the processing of plate; cold punches and shear blades; woodworking, coining and pneumatic tools. Hot work tools for use at moderate heat.

Propiedades

- Acero para herramientas de trabajo en frío
- Resistente al impacto
- Excelente tenacidad
- Excelente resistencia al desgaste

Aplicaciones

- > Conformado en frío
- > Componentes estándar (moldes, placas, clavos, punzones)
- > Compactación de polvo

Designación	
~1.2550	SEL
~60WCrV7	EN
~60WCrV8	
~S1	AISI

Composición Química

C	Si	Mn	Cr	V	W
0,63	0,60	0,30	1,10	0,18	2,00

Características

	Resistencia a la compresión	Estabilidad dimensional durante el tratamiento térmico	Tenacidad	Resistencia al desgaste abrasivo
BÖHLER K455	★★★	★	★★★★★	★
BÖHLER K245	★★	★	★★★★★	★
BÖHLER K460	★★★★	★	★★★★	★★
BÖHLER K720	★★	★	★★★★	★

Estado de suministro

recocido	
Dureza	máx. 225 HB

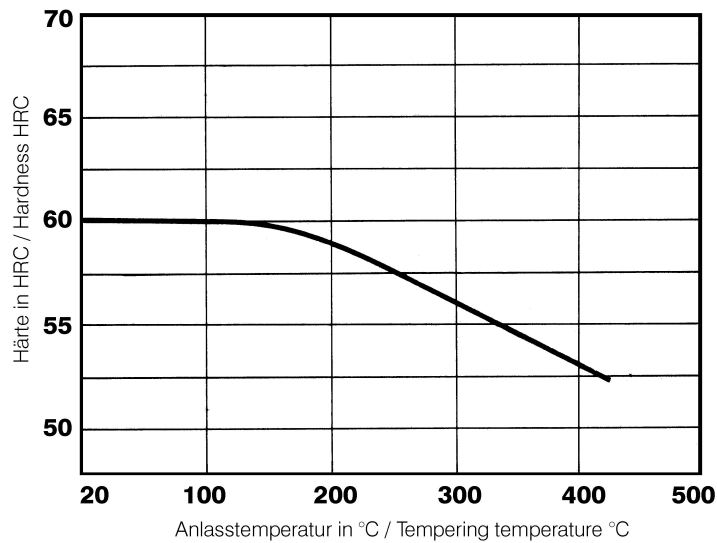
Tratamiento térmico

Recocido		
Temperatura (°C)	710 to 750	Slow controlled cooling in furnace at a rate of 50 to 68°F/hr (10 to 20°C/hr) down to approx. 1112°F (600°C), further cooling in air.

Aliviar el estrés		
Temperatura (°C)	650	Slow cooling in furnace. Intended to relieve stresses set up by extensive machining, or in complex shapes. After through heating, hold in neutral atmosphere for 1-2 hours

Temple y revenido		
Temperatura (°C)	870 to 900	Oil, Holding time after temperature equalization: 15 to 30 minutes. After hardening, tempering to the desired working hardness, see tempering chart.

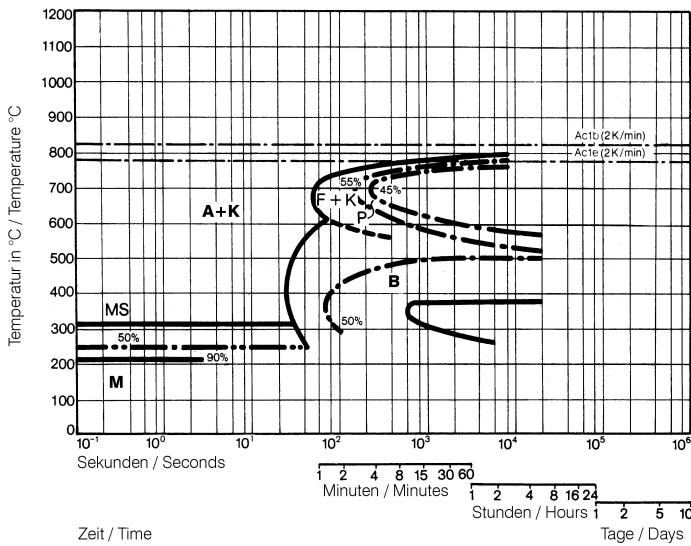
Tempering chart



Tempering:

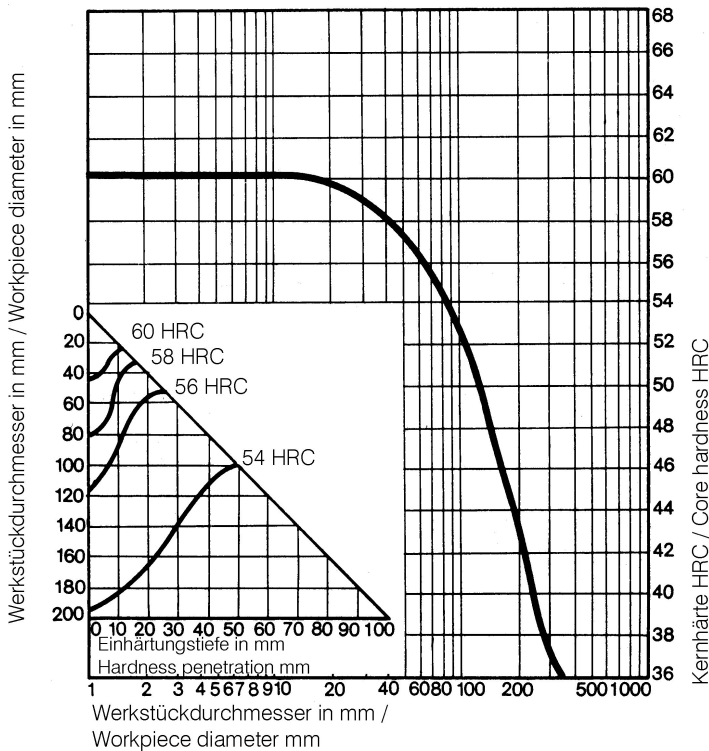
Hardening temperature:
 — 890°C / 1634°F
 Specimen size: square 20mm

Isothermal TTT curves



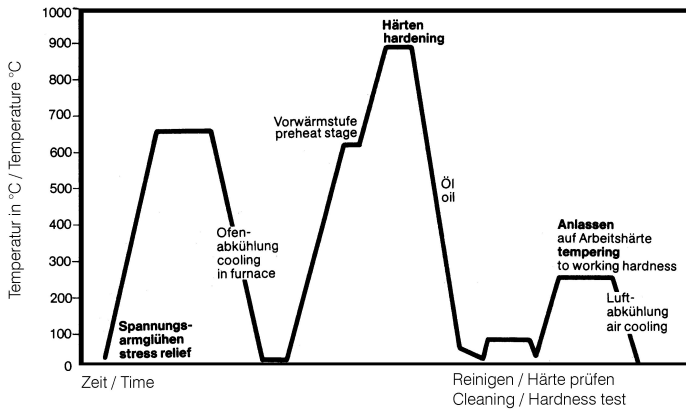
Austenitising temperature: 880°C / 1616°F
Holding time: 15 minutes

Influence of work diameter on core hardness and hardness penetration



Quenched from: 890°C / 1634°F
Agent: Oil

Heat treatment sequence



Physical Properties

Temperatura (°C)	20
Densidad (kg/dm ³)	8
Conductividad térmica (W/(m.K))	25
Calor específico (J/(kg.K))	460
Resistencia eléctrica específica (Ohm.mm ² /m)	0,3
Módulo de elasticidad (10 ³ N/mm ²)	210

Expansión térmica

Temperatura (°C)	100	200	300	400	500
Expansión térmica (10 ⁻⁶ m/(m.K))	11	12,5	13	13,5	14

Para más información vea www.acerosbohler.com

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ONE STEP AHEAD.