

ACEROS PARA TRABAJO EN FRÍO

Formatos disponibles

[Productos largos*](#)[Chapas](#)

*) Presented data refer exclusively to long products. Please observe the detailed explanations at the end of the data sheet (pdf).

Descripción

BÖHLER K329 es un acero para trabajo en frío con excelente tenacidad y buena resistencia al desgaste.

Método de obtención

[Convencional](#)

Propiedades

- > Dureza y Ductilidad : buena
- > Resistencia al desgaste : alto
- > Resistencia a la compresión : buena
- > Estabilidad dimensional : buena

Aplicaciones

- > Cuchillas de máquinas (fabricantes)

Datos técnicos

Designación	
~1.2360	SEL
~A8	AISI

Composición Química

C	Si	Mn	Cr	Mo	V
0,52	0,95	0,40	8,00	1,40	0,35

Características

	Resistencia a la compresión	Estabilidad dimensional durante el tratamiento térmico	Tenacidad	Resistencia al desgaste abrasivo
BÖHLER K329	★★★	★★★	★★★★★	★★★★★
BÖHLER K305	★★★★★	★★★	★★	★★★★★
BÖHLER K306	★★★★★	★★★	★★★★★	★★★
BÖHLER K313	★★★★★	★★★	★★★	★★★
BÖHLER K320	★★★	★★★	★★★	★★★
BÖHLER K600	★	★★★	★★★★★	★
BÖHLER K601	★	★★★	★★★★★	★★
BÖHLER K605	★★	★★★	★★★★★	★

Estado de suministro

recocido

Dureza (HB)	máx. 240
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Tratamiento térmico

Recocido

Temperatura	800 a 850 °C	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.
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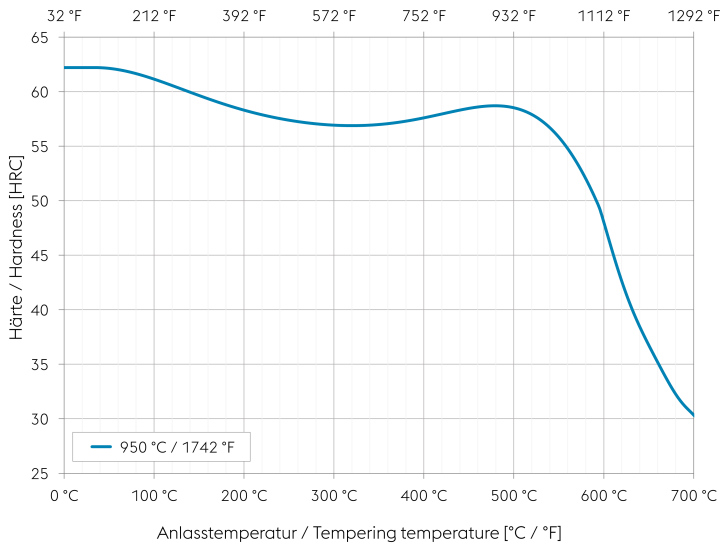
Alivio de tensiones

Temperatura	650 °C	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 to 2 hours.
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Temple y revenido

Temperatura	1.000 a 1.040 °C	Oil, salt bath 932 to 1022°F (500 to 550°C), air. Holding time after temperature equalization: 15 to 30 minutes. After hardening, tempering to the desired working hardness, see tempering chart.
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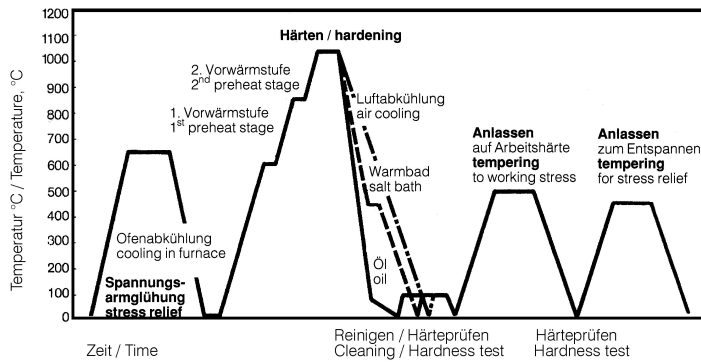
Tempering chart



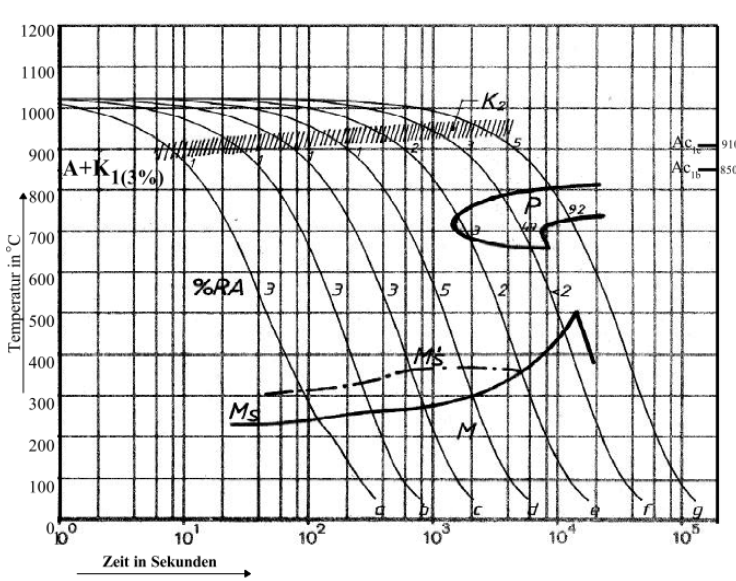
Tempering:

Hardening temperature: 1020°C
 Specimen size: square 20 mm

Heat treatment sequence



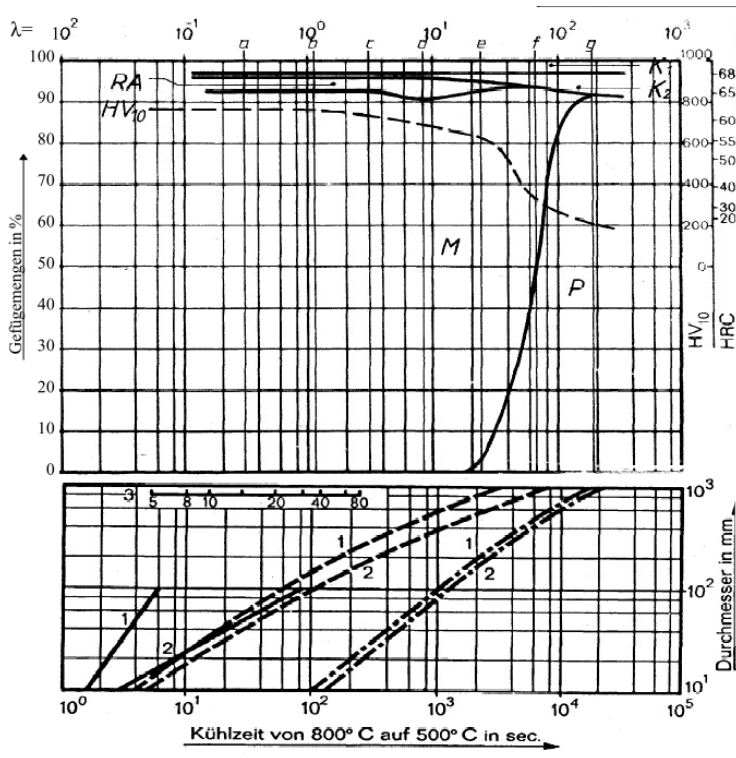
Continuous cooling CCT curves



Austenitising temperature: 1020°C / 1868°F
Holding time: 30 minutes

O Vickers hardness
2...100 phase percentages
0.42...14.6 cooling parameter, i.e. duration of cooling from 800°C to 500°C (1472°F to 932°F) in $s \times 10^{-2}$

Quantitative phase diagram



A... Austenite
B... Bainite
P... Pearlite
M... Martensite

— Watercooling
- - - Oil cooling
- · - Air cooling

1... Edge or face
2... Core
3... Jominy test: distance from end

Propiedades físicas

Temperatura (°C)	20
Densidad (kg/dm ³)	7,7
Conductividad térmica (W/(m.K))	26
Calor específico (kJ/kg K)	0,46
Resistencia eléctrica específica (Ohm.mm ² /m)	0,6
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))	11,5	12	12,2	12,5	12,8

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

Sheet & Plates: Product Variant may differ in terms of melting process, technical data, delivery, and surface condition as well as available product dimensions. Please contact voestalpine BÖHLER Bleche GmbH & Co KG.

The data contained in this brochure is merely for general information and therefore shall not be binding on the company. We may be bound only through a contract explicitly stipulating such data as binding. Measurement data are laboratory values and can deviate from practical analyses. The manufacture of our products does not involve the use of substances detrimental to health or to the ozone layer.