

NÁSTROJOVÉ OCELI PRO PRÁCI ZA STUDENA

Rozměrový sortiment k dispozici

 Tyčová ocel*

 Plech

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

Popis produktu

BÖHLER K329 - Nástrojová ocel pro práci za studena s vynikající houževnatostí a dobrou odolností proti opotřebení otěrem.

Trasa tavení

 Airmelted

Vlastnosti

- > Houževnatost a tažnost : dobré
- > Odolnost proti opotřebení : vysoká
- > Pevnost v tlaku : dobré
- > Rozměrová stálost : dobré

Použití

- > Průmyslové nože

Technické údaje

Označení materiálu	
~1.2360	SEL
~A8	AISI

Chemické složení

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

Materiálové vlastnosti

	Tlaková zatížitelnost	Rozměrová stabilita při tepelném zpracování	Houževnatost	Odolnost proti opotřebení abrazivní
BÖHLER K329	★★★	★★★	★★★★★	★★★★★
BÖHLER K305	★★★★★	★★★	★★	★★★★★
BÖHLER K306	★★★★★	★★★	★★★★★	★★★
BÖHLER K313	★★★★★	★★★	★★★	★★★
BÖHLER K320	★★★	★★★	★★★	★★★
BÖHLER K600	★	★★★	★★★★★	★
BÖHLER K601	★	★★★	★★★★★	★★
BÖHLER K605	★★	★★★	★★★★★	★

Stav dodání

Žháno

Tvrdość (HB)	max. 240
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Tepelné zpracování

Annealing

Teplota	800 na 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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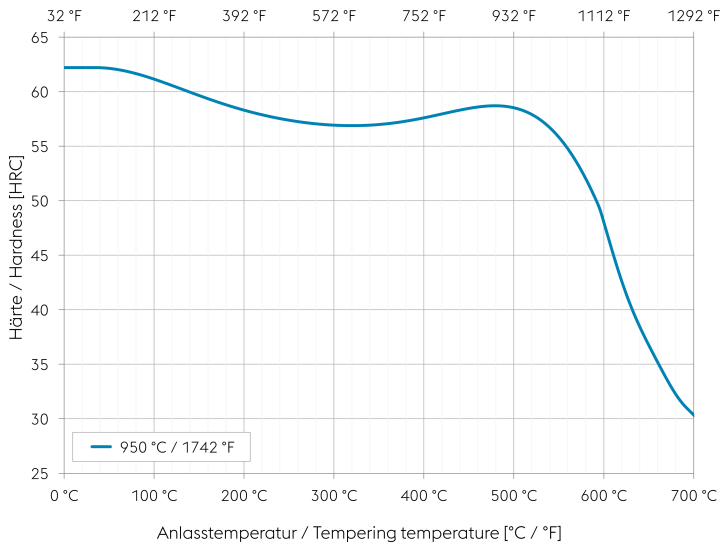
Žhání na odstranění vnitřního pnutí

Teplota	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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Kalení a popouštění

Teplota	1 000 na 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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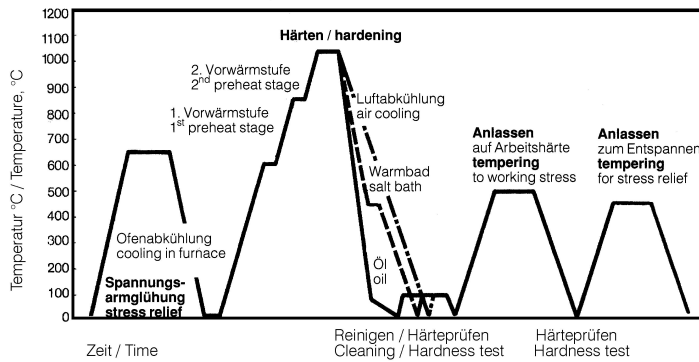
Tempering chart



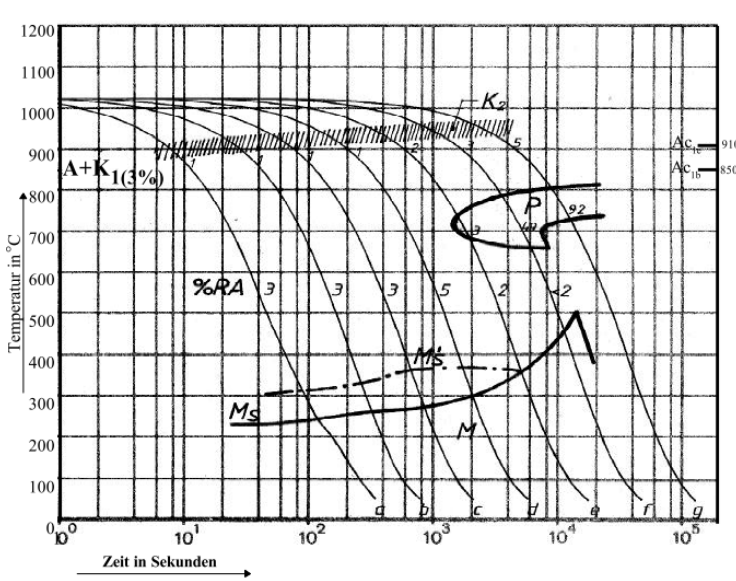
Tempering:

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

Heat treatment sequence



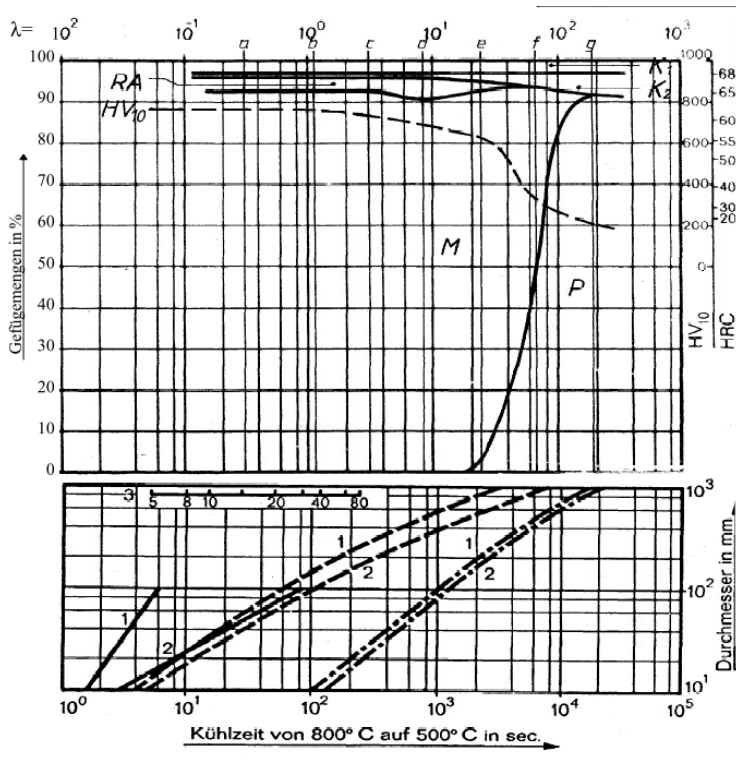
Continuous cooling CCT curves



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

Fyzikální vlastnosti

Teplota (°C)	20
Hustota (kg/dm ³)	7,7
Tepelná vodivost (W/(m.K))	26
Měrná tepelná kapacita (kJ/kg K)	0,46
Měrný elektrický odpor (Ohm.mm ² /m)	0,6
Modul pružnosti (10 ³ N/mm ²)	210

Tepelná roztažnost

Teplota (°C)	100	200	300	400	500
Tepelná roztažnost (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.

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