

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

K353 es un acero universal de herramientas para aplicaciones de trabajo en frío.

Excepcional por su alta dureza, alta resistencia al desgaste y extraordinaria tenacidad.

K353 es un acero con 8 % de cromo producido convencionalmente, con buena maquinabilidad, tenacidad y estabilidad dimensional.

Método de obtención

[Convencional](#)

Propiedades

> Estabilidad dimensional : buena

Aplicaciones

- > Cuchillas de máquinas (fabricantes)
- > Conformado en frío
- > Corte fino / Troquelado / Estampado
- > Forja fría/ conformación en caliente
- > Canales calientes

Composición Química

C	Si	Mn	Cr	Mo	V	Al
0,82	0,70	0,40	8,00	1,60	0,60	+

Características

	Resistencia a la compresión	Estabilidad dimensional durante el tratamiento térmico	Tenacidad	Resistencia al desgaste abrasivo	Resistencia al desgaste adhesivo
BÖHLER K353	★★	★★★	★★	★★	★★
BÖHLER K100	★★	★★	★	★★★	★★
BÖHLER K105	★★	★★	★	★★	★★
BÖHLER K107	★★	★★	★	★★★	★★
BÖHLER K110	★★	★★★	★	★★★	★★
BÖHLER K190 MICROCLEAN®	★★★★	★★★★★	★★★★	★★★★	★★★★
BÖHLER K294 MICROCLEAN®	★★★★★	★★★★★	★★★	★★★★★	★★★★★
BÖHLER K340 ECOSTAR®	★★★	★★★	★★	★★	★★
BÖHLER K340 ISODUR®	★★★	★★★★	★★★	★★★	★★★★
BÖHLER K346	★★★	★★★	★★★	★★★★	★★
BÖHLER K360 ISODUR®	★★★	★★★★	★★★	★★★★	★★★★
BÖHLER K390 MICROCLEAN®	★★★★★	★★★★★	★★★★	★★★★★	★★★★★
BÖHLER K490 MICROCLEAN®	★★★★	★★★★★	★★★★	★★★★	★★★★
BÖHLER K497 MICROCLEAN®	★★★★★	★★★★★	★★★	★★★★★	★★★★★
BÖHLER K888 MATRIX	★★★★	★★★★★	★★★★★	★★	★★
BÖHLER K890 MICROCLEAN®	★★★★	★★★★★	★★★★★	★★★	★★★

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 10 to 20 °C/hr (50 - 68 °F) down to approx. 600 °C (1100 °F), further cooling in air.
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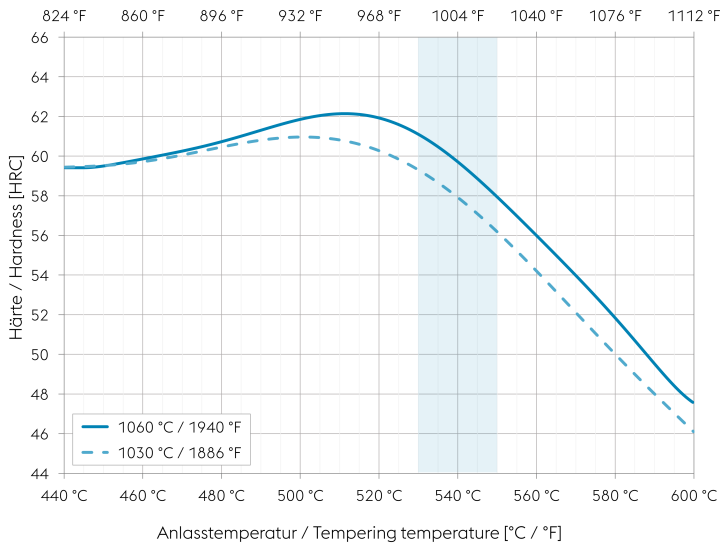
Alivio de tensiones

Temperatura	650 °C	After through-heating, hold in neutral atmosphere for 1 - 2 hours. Slow cooling in furnace; intended to relieve stresses set up by extensive machining, or in complex shapes.
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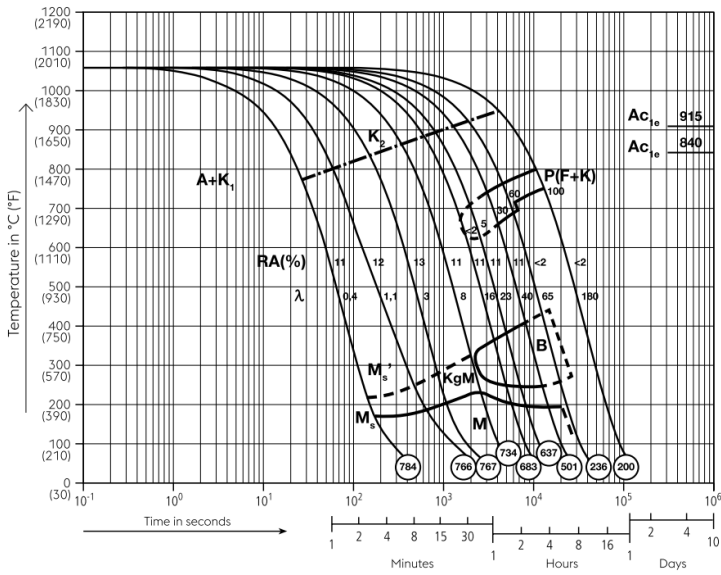
Temple y revenido

Temperatura	1.030 a 1.060 °C	Oil, salt bath, vacuum After through-heating, hold for 15 to 30 minutes. After hardening, tempering to the desired working hardness, see tempering chart.
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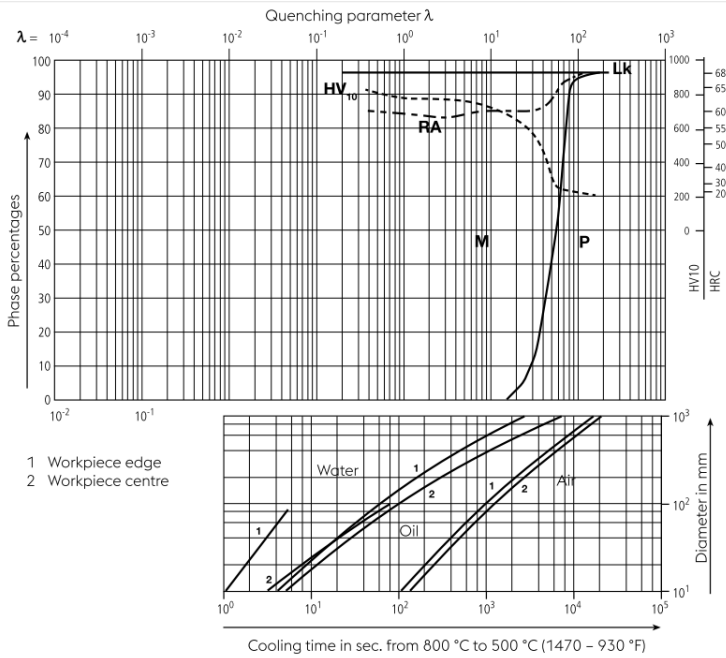
Tempering chart



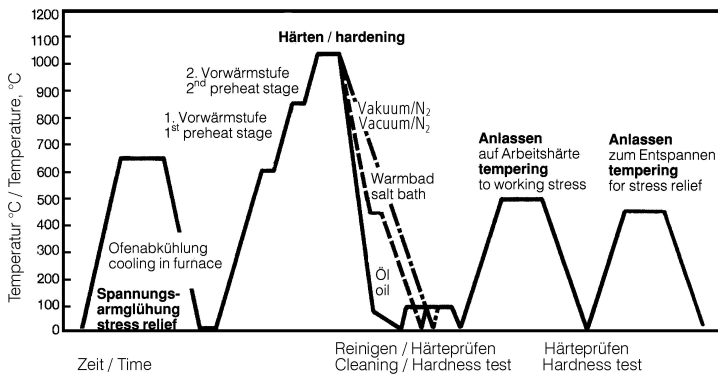
Continuous cooling CCT curves



Quantitative phase diagram



Heat treatment sequence



Propiedades físicas

Temperatura (°C)	20
Densidad (kg/dm ³)	7,7
Conductividad térmica (W/(m.K))	21,9
Calor específico (kJ/kg K)	0,47
Resistencia eléctrica específica (Ohm.mm ² /m)	-
Módulo de elasticidad (10 ³ N/mm ²)	212

Expansión térmica

Temperatura (°C)	100	200	300	400	500
Expansión térmica (10 ⁻⁶ m/(m.K))	11	11,3	11,6	12	12,4

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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