

COLD WORK STEELS

Available Product Shapes

Plates

Product Description

High-duty cutting tools (dies and punches), blanking and punching tools, woodworking tools, shear blades for cutting light-gauge material, thread rolling tools, tools for drawing, deep drawing and cold extrusion, pressing tools for the ceramics and pharmaceutical industries, cold rolls (working rolls) for multiple-roll stands, measuring instruments and gauges, small moulds for the plastics industry where excellent wear resistance is required.

Properties

- Dimensionally stable, high carbon, high-chromium (12%) steel.
- Particularly suitable for air hardening.
- Good toughness.

Material designation	
1.2601	SEL
~T30402	UNS
X165CrMoV12	EN
~D2	AISI
~Ch12MF	GOST

Chemical composition

C	Si	Mn	Cr	Mo	V	W
1.60	0.35	0.30	11.50	0.60	0.30	0.50

Material characteristics

	Compressive strength	Dimensional stability during heat treatment	Toughness	Wear resistance abrasive	Wear resistance adhesive
BÖHLER K105	★★	★★	★	★★	★★
BÖHLER K100	★★	★★	★	★★★	★★
BÖHLER K107	★★	★★	★	★★★	★★
BÖHLER K110	★★	★★★	★	★★★	★★
BÖHLER K190 MICROCLEAN	★★★★	★★★★★	★★★★	★★★★	★★★★
BÖHLER K294 MICROCLEAN	★★★★★	★★★★★	★★★	★★★★★	★★★★★
BÖHLER K340 ISODUR	★★★	★★★★	★★★	★★★	★★★★
BÖHLER K340 ECOSTAR	★★★	★★★	★★	★★	★★
BÖHLER K360 ISODUR	★★★	★★★★	★★★	★★★★	★★★★
BÖHLER K346	★★★	★★★	★★★	★★★★	★★
BÖHLER K353	★★	★★★	★★	★★	★★
BÖHLER K390 MICROCLEAN	★★★★★	★★★★★	★★★★	★★★★★	★★★★★
BÖHLER K890 MICROCLEAN	★★★★	★★★★★	★★★★★	★★★	★★★
BÖHLER K490 MICROCLEAN	★★★★	★★★★★	★★★★	★★★★	★★★★
BÖHLER K497 MICROCLEAN	★★★★★	★★★★★	★★★	★★★★★	★★★★★

Physical Properties at 20°C / 68°F

Thermal Expansions

Temperature (°C / °F)	100 / 212	200 / 392	300 / 572	400 / 752	500 / 932	600 / 1112
Thermal expansion (10 ⁻⁶ m/(m.K) / 10 ⁻⁶ inch/(inch.F))	10.5 / 5.833	11 / 6.111	11 / 6.111	11.5 / 6.389	12 / 6.667	12 / 6.667

For more information see www.voestalpine.com/boehler-edelstahl

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