

# COLD WORK STEELS

## Available Product Shapes

Long Products

## Product Description

Rolling mill rolls, cold and hot roll forming, wire rolling mills, high performance cutting tools (punches and dies for cutting of thick sheets), precision cutting tools for sheets, tools for cold and semi-cold extrusion, stamping tools, sintering press tools, shearing and burring tools, hot shearing tools, extruding machine applications, hot work piercing mandrels and tools used at working temperatures of 1020°F (550°C) or lower. Machine parts in injection and extrusion moulding such as screws, barrels, nozzle tips, retaining rings, etc.

## Properties

Powder metallurgically manufactured high performance tool steel with the highest capacity of wear resistance and simultaneously high toughness.

## Chemical composition

C	Si	Mn	Cr	Mo	V
1.85	0.85	0.50	5.30	1.30	9.00

## Material characteristics

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

**Physical Properties at 20°C / 68°F**

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**Thermal Expansions**

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Temperature (°C / °F)	100 / 212	200 / 392	300 / 572	400 / 752	650 / 1202
Thermal expansion (10 <sup>-6</sup> m/(m.K) / 10 <sup>-6</sup> inch/(inch.F))	11.1 / 6.167	11.2 / 6.222	11.3 / 6.278	11.5 / 6.389	11.8 / 6.556

For more information see [www.voestalpine.com/boehler-edelstahl](http://www.voestalpine.com/boehler-edelstahl)

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ONE STEP AHEAD.