

# HIGH SPEED STEELS

## Available Product Shapes

Ground Flat

## Product Description

### BÖHLER S600 – "The high-speed steel"

Ideal for mills, spiral bits, and taps, broaches, cold-work tools. BÖHLER S600 is the most commonly used high-speed steel and is the starting material for our customers who deal with high-speed steel.

## Properties

- High Toughness & Ductility
- High Wear Resistance
- High Compressive strength
- High high Edge Stability
- High Grindability
- High Hot Hardness

Material designation		Standards	
1.3343	SEL	4957	EN ISO
HS6-5-2C	EN		

## Chemical composition

C	Cr	Mo	V	W
0.90	4.10	5.00	1.80	6.20

## Material characteristics

	Compressive strength	Grindability	Red hardness	Toughness	Wear resistance	Edge Stability
<b>BÖHLER S600</b>	★★★	★★★	★★★	★★	★★	★★★
<b>BÖHLER S200</b>	★★★	★★	★★★	★★	★★★	★★
<b>BÖHLER S400</b>	★★★	★★★	★★★	★★★	★★	★★
<b>BÖHLER S401</b>	★★	★★★	★★	★★★	★★	★★★
<b>BÖHLER S500</b>	★★★★	★★★	★★★★	★★	★★★	★★★
<b>BÖHLER S607</b>	★★★	★★★	★★★	★★	★★★	★★★
<b>BÖHLER S630</b>	★★★	★★★	★★★	★★	★★	★★★
<b>BÖHLER S705</b>	★★★	★★★	★★★★	★★	★★	★★★★

**Physical Properties**

<b>Temperature (°C / °F)</b>	<b>20 / 68</b>
Density (kg/dm <sup>3</sup> / lb/in <sup>3</sup> )	8.07 / 0.29
Thermal conductivity (W/(m.K) / BTU (IT) ft/hr/ft <sup>2</sup> /F)	21.8 / 12.6
Specific heat (J/(kg.K) / BTU (IT) lb/F)	433 / 103.42
Spec. electrical resistance (Ohm.mm <sup>2</sup> /m / Ohm.inch <sup>2</sup> /ft)	0.47 / <0.001
Modulus of elasticity (10 <sup>3</sup> N/mm <sup>2</sup> / 10 <sup>3</sup> ksi)	219 / 31.7

**Thermal Expansions**

<b>Temperature (°C / °F)</b>	<b>100 / 212</b>	<b>200 / 392</b>	<b>300 / 572</b>	<b>400 / 752</b>	<b>500 / 932</b>	<b>600 / 1112</b>	<b>700 / 1292</b>
Thermal expansion (10 <sup>-6</sup> m/(m.K) / 10 <sup>-6</sup> inch/(inch.F))	10.75 / 5.972	11.17 / 6.206	11.57 / 6.428	11.92 / 6.622	12.31 / 6.839	12.66 / 7.033	13.1 / 7.278

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