

# HIGH SPEED STEELS

## Available Product Shapes

Plates

## Product Description

### BÖHLER S200 – "The old man"

This traditional tungsten high-speed steel shows its class as it always has in a tough working environment. High hot hardness and good wear resistance are characteristic of this class.

## Properties

Good Toughness & Ductility

High Wear Resistance

Good Compressive strength

Good Edge Stability

Good Grindability

High Hot Hardness

Material designation		Standards	
1.3355	SEL	4957	EN ISO
T12001	UNS	A600	ASTM
HS18-0-1	EN		
T1	AISI		
SKH2	JIS		

## Chemical composition

C	Si	Mn	Cr	V	W
0.75	0.25	0.30	4.10	1.10	18.00

## Material characteristics

	Compressive strength	Grindability	Red hardness	Toughness	Wear resistance	Edge Stability
<b>BÖHLER S200</b>	★★★	★★	★★★	★★	★★★	★★
<b>BÖHLER S400</b>	★★★	★★★	★★★	★★★	★★	★★
<b>BÖHLER S401</b>	★★	★★★	★★	★★★	★★	★★★
<b>BÖHLER S404</b>	★★	★★★	★★	★★★	★★	★★
<b>BÖHLER S500</b>	★★★★	★★★	★★★★	★★	★★★	★★★
<b>BÖHLER S600</b>	★★★	★★★	★★★	★★	★★	★★★
<b>BÖHLER S607</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> )	8.7 / 0.31
Thermal conductivity (W/(m.K) / BTU (IT) ft/hr/ft <sup>2</sup> /F)	19 / 10.98
Specific heat (J/(kg.K) / BTU (IT) lb/F)	460 / 109.87
Spec. electrical resistance (Ohm.mm <sup>2</sup> /m / Ohm.inch <sup>2</sup> /ft)	0.5 / 0
Modulus of elasticity (10 <sup>3</sup> N/mm <sup>2</sup> / 10 <sup>3</sup> ksi)	217 / 31.47

**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 / 5.556	10.5 / 5.833	10.8 / 6	11.2 / 6.222	11.3 / 6.278	11.4 / 6.333	11.6 / 6.444

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