

# HIGH SPEED STEELS

## Available Product Shapes

Round Bar

## Product Description

### BÖHLER S790 MICROCLEAN – "The 1<sup>st</sup> MICROCLEAN"

High-speed steel manufactured in a power metallurgy process, with good hot hardness, compressive strength, and wear resistance. PM technology gives it good toughness and excellent workability, including the best machinability.

## Properties

High Toughness & Ductility

Good Wear Resistance

Good Compressive strength

Good Edge Stability

High Grindability

Good Hot Hardness

Material designation		Standards	
1.3345	SEL	4957	EN ISO
HS6-5-3C	EN		

## Chemical composition

C	Si	Mn	Cr	Mo	V	W
1.29	0.60	0.30	4.20	5.00	3.00	6.30

## Physical Properties

Temperature (°C / °F)	20 / 68
Density (kg/dm <sup>3</sup> / lb/in <sup>3</sup> )	8 / 0.29
Thermal conductivity (W/(m.K) / BTU (IT) ft/hr/ft <sup>2</sup> /F)	24 / 13.87
Specific heat (J/(kg.K) / BTU (IT) lb/F)	420 / 100.32
Spec. electrical resistance (Ohm.mm <sup>2</sup> /m / Ohm.inch <sup>2</sup> /ft)	0.54 / 0
Modulus of elasticity (10 <sup>3</sup> N/mm <sup>2</sup> / 10 <sup>3</sup> ksi)	230 / 33.36

## Thermal Expansions

Temperature (°C / °F)	100 / 212	200 / 392	300 / 572	400 / 752	500 / 932	600 / 1112	700 / 1292
Thermal expansion (10 <sup>-6</sup> m/(m.K) / 10 <sup>-6</sup> inch/(inch.F))	11.5 / 6.389	11.7 / 6.5	12.2 / 6.778	12.4 / 6.889	12.7 / 7.056	13 / 7.222	12.9 / 7.167

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

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ONE STEP AHEAD.