

# HEAT TREATABLE STEELS AND PRECIPITATION HARDENING STEELS

## Available Product Shapes

Round Bar

## Product Description

Cr–Mo alloyed steel grade for applications requiring high tensile – and toughness values, particular in medium and large cross sections in quenched and tempered heat treatment condition.

## Properties

Molybdenum addition prevents this steel grade from temper brittleness. Surface hardenable. Manufacturing of parts in vehicles for gear boxes and engines.

Material designation		Standards	
1.7225	SEL	10083-3	EN ISO
G41400	UNS	10132-3	
G41420		10250-3	
G41450		10263-4	
H41400		10269	
H41420		10297-1	
H41450		10305-1	
K14248		10343	
42CrMo4		EN	6349D
SCM 440 M	JIS	6382N	
SCM 440 TK		6381H	
SCM 440 HRCH		6395G	
SCM 440 RCH		6452D	
SCM 440 H		6529C	
SCM 440		JIS	G3311
SNB 7 Class 2			G3441
	G3509-1		
	G3509-1		
	G4053		
	G4052		
	G4107		

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

Density	7.85 / 0.28	[kg/dm <sup>3</sup> / lb/in <sup>3</sup> ]
Thermal conductivity	42 / 24.27	[W/(m.K) / BTU (IT) ft/hr/ft <sup>2</sup> /F]
Specific heat	460 / 109.87	[J/(kg.K) / BTU (IT) lb/F]
Spec. electrical resistance	0.19 / <0.001	[Ohm.mm <sup>2</sup> /m / Ohm.inch <sup>2</sup> /ft]

**Thermal Expansions**

Temperature (°C / °F)	100 / 212	200 / 392	300 / 572	400 / 752	500 / 932	600 / 1112
Thermal expansion (10 <sup>-6</sup> m/(m.K) / 10 <sup>-6</sup> inch/ (inch.F))	11.1 / 6.167	12.1 / 6.722	12.9 / 7.167	13.5 / 7.5	13.9 / 7.722	14.1 / 7.833

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

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ONE STEP AHEAD.