

## Crucible Steel CSM® S60V (440V) Tool Steel, AISI 440C Modified

Category : Metal , Ferrous Metal , Tool Steel

### Material Notes:

CPM S60V is a unique tool steel made by the Crucible Particle Metallurgy process. It is designed from a 440C stainless base analysis with added high carbon and vanadium for exceptionally good wear resistance. The exceptional wear resistance and good corrosion resistance of CPM S60V make it an excellent candidate to replace 440C and other corrosion and wear resistant materials, particularly where increased wear resistance is a primary concern. Information provided by Crucible Industries

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Crucible-Steel-CSM-S60V-440V-Tool-Steel-AISI-440C-Modified.php](http://www.lookpolymers.com/polymer_Crucible-Steel-CSM-S60V-440V-Tool-Steel-AISI-440C-Modified.php)

Physical Properties	Metric	English	Comments
Density	7.47 g/cc	0.270 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell C	58	58	Heat Treated at 1950°F then air cooled
	60	60	Heat Treated at 1950°F then quenched
	54	54	Heat Treated at 1950°F then air cooled and tempered
	@Tempering Temp. 260 - 371 °C	@Tempering Temp. 500 - 700 °F	
	55	55	Heat Treated at 1950°F then quenched and tempered
	@Tempering Temp. 260 - 371 °C	@Tempering Temp. 500 - 700 °F	
	56	56	Heat Treated at 1950°F then air cooled and tempered
	@Tempering Temp. 204 °C	@Tempering Temp. 400 °F	
	56	56	Heat Treated at 2050°F then air cooled and tempered
	@Tempering Temp. 316 - 371 °C	@Tempering Temp. 600 - 700 °F	
58	58	Heat Treated at 2050°F then air cooled and tempered	
@Tempering Temp. 204 °C	@Tempering Temp. 400 °F		
58	58	Heat Treated at 1950°F then quenched and tempered	
@Tempering Temp. 204 °C	@Tempering Temp. 400 °F		
58	58	Heat Treated at 2050°F then quenched and tempered	
@Tempering Temp. 316	@Tempering Temp. 600		

Mechanical Properties	- 371 °C Metric	- 700 °F English	Comments
	60	60	Heat Treated at 2050°F then quenched and tempered
	@Tempering Temp. 204 °C	@Tempering Temp. 400 °F	
Modulus of Elasticity	207 GPa	30000 ksi	
Charpy Impact	16.3 J	12.0 ft-lb	hardened; C-notch
	@Treatment Temp. 1070 °C	@Treatment Temp. 1950 °F	
	21.7 J	16.0 ft-lb	hardened; C-notch
	@Treatment Temp. 1010 °C	@Treatment Temp. 1850 °F	

Thermal Properties	Metric	English	Comments
CTE, linear	11.1 µm/m-°C	6.14 µin/in-°F	
	@Temperature 21.1 - 204 °C	@Temperature 70.0 - 400 °F	
	11.5 µm/m-°C	6.37 µin/in-°F	
	@Temperature 21.1 - 316 °C	@Temperature 70.0 - 600 °F	
	12.2 µm/m-°C	6.79 µin/in-°F	
	@Temperature 21.1 - 593 °C	@Temperature 70.0 - 1100 °F	
Thermal Conductivity	1.40 W/m-K	9.70 BTU-in/hr-ft²-°F	

Component Elements Properties	Metric	English	Comments
Carbon, C	2.15 %	2.15 %	
Chromium, Cr	17 %	17 %	
Iron, Fe	73.5 %	73.5 %	as balance
Manganese, Mn	0.40 %	0.40 %	
Molybdenum, Mo	1.0 %	1.0 %	
Silicon, Si	0.40 %	0.40 %	
Vanadium, V	5.5 %	5.5 %	

Chemical Properties	Metric	English	Comments
Critical Temperature	860 °C	1580 °F	

Chemical Properties

Metric

English

Comments

## Contact Songhan Plastic Technology Co.,Ltd.

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