

## PSM Industries Ferro-TiC® CS-40 Martensitic Stainless Steel

Category: Ceramic, Carbide, Metal, Ferrous Metal, Martensitic

## **Material Notes:**

Ferro-TiC® Steel alloy bonded titanium carbide (TiC) materials are made by advanced powder metallurgy technologies. Unlike tungsten carbide, Ferro-TiC® is bonded by hardenable alloy matrices. High hardness with corrosion resistance of 400 series stainless steels.

Magnetic.Ferro-TiC® Unique CharacteristicsProvides the lightweight, size, stability, and hardnessVirtually porosity free - significantly better than the A1 ASTM B-276-79 StandardLow specific mass. Ferro-Tic® is 10-20% lighter than its steel counterpart and about 50% lighter than tungsten carbide10 times the wear resistance of tool steelsEconomical fabrication (conventionally machinable in the annealed stage by milling and turning, conventionally heat treatable to achieve high hardness)50-90% less linear size change in heat treat than tool steelsInformation Provided by Ferro-TiC®, a division of PSM Industries

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_PSM-Industries-Ferro-TiC-CS-40-Martensitic-Stainless-Steel.php

Physical Properties	Metric	English	Comments
Density	6.45 g/cc	0.233 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments	
Hardness, Rockwell C	50	50	Annealed	
	68	68	Hardened	
Flexural Strength	1030 MPa	149000 psi	Transverse Rupture	
Compressive Strength	3120 MPa	453000 psi		
Charpy Impact Unnotched	2.589 J/cm <sup>2</sup>	12.33 ft-lb/in <sup>2</sup>		

Thermal Properties	Metric	English	Comments
CTE, linear	4.41 μm/m-°C	2.45 µin/in-°F	
	@Temperature 21.1 - 371 °C	@Temperature 70.0 - 700 °F	
Maximum Service Temperature, Air	371 °C	700 °F	

Descriptive Properties	Value	Comments
Carbide (Vol. %)	45	
Linear Size Change Thru Heat Treat %	0.016	
Thermal Shock (No. Cycles)	1	



## **Contact Songhan Plastic Technology Co.,Ltd.**

Website: www.lookpolymers.com Email: sales@lookpolymers.com

Tel: +86 021-51131842 Mobile: +86 13061808058

Skype: lookpolymers

Address: United North Road 215, Fengxian District, Shanghai City, China