

## M Cubed Technologies TSC-15 Titanium-alloyed Reaction Bonded Silicon Carbide

Category : Ceramic , Carbide , Ceramic Matrix Composite

### Material Notes:

Specialty reaction-bonded SiC for applications requiring high stiffness, high toughness, and also high thermal conductivity--mechanical seals, for example Flow-through complex channels can be formed inside this material for water cooling. Information provided by M Cubed Technologies, Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_M-Cubed-Technologies-TSC-15-Titanium-alloyed-Reaction-Bonded-Silicon-Carbide.php](http://www.lookpolymers.com/polymer_M-Cubed-Technologies-TSC-15-Titanium-alloyed-Reaction-Bonded-Silicon-Carbide.php)

Physical Properties	Metric	English	Comments
Density	3.13 g/cc	0.113 lb/in <sup>3</sup>	ASTM C135

Mechanical Properties	Metric	English	Comments
Knoop Microhardness	1400 @Load 2.00 kg	1400 @Load 4.41 lb	kg/mm <sup>2</sup> ; ASTM C1326
Modulus of Elasticity	390 GPa	56600 ksi	ASTM E494
Flexural Strength	250 MPa	36300 psi	ASTM C1161
Poissons Ratio	0.19	0.19	ASTM E494
Fracture Toughness	4.80 MPa-m <sup>1/2</sup>	4.37 ksi-in <sup>1/2</sup>	ASTM C1421
Shear Modulus	164 GPa	23800 ksi	Calculated

Thermal Properties	Metric	English	Comments
CTE, linear	3.00 μm/m-°C @Temperature 25.0 - 100 °C	1.67 μin/in-°F @Temperature 77.0 - 212 °F	ASTM E831
Thermal Conductivity	210 W/m-K	1460 BTU-in/hr-ft <sup>2</sup> -°F	ASTM E1461

Descriptive Properties	Value	Comments
Matrix	Ti-Si	
Particle Reinforcement	SiC	
Vol. % Reinforcement	80	

Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

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