

## M Cubed Technologies SSC-FG Reaction-Bonded Silicon Carbide, Fine-Grained

Category : Ceramic , Carbide , Ceramic Matrix Composite

**Material Notes:**

Fine-grained reaction-bonded SiC. Used for mechanical seals and other SiC applications that require a high surface finish/tight tolerances.

Si content can be tailored for the application. Information provided by M Cubed Technologies, Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_M-Cubed-Technologies-SSC-FG-Reaction-Bonded-Silicon-Carbide-Fine-Grained.php](http://www.lookpolymers.com/polymer_M-Cubed-Technologies-SSC-FG-Reaction-Bonded-Silicon-Carbide-Fine-Grained.php)

Physical Properties	Metric	English	Comments
Density	3.00 g/cc	0.108 lb/in <sup>3</sup>	ASTM C135

Mechanical Properties	Metric	English	Comments
Knoop Microhardness	1080	1080	kg/mm <sup>2</sup> ; ASTM C1326
	@Load 2.00 kg	@Load 4.41 lb	
Modulus of Elasticity	330 GPa	47900 ksi	ASTM E494
Flexural Strength	350 MPa	50800 psi	ASTM C1161
Poissons Ratio	0.18	0.18	ASTM E494
Fracture Toughness	4.00 MPa-m <sup>1/2</sup>	3.64 ksi-in <sup>1/2</sup>	ASTM C1421
Shear Modulus	140 GPa	20300 ksi	Calculated

Thermal Properties	Metric	English	Comments
CTE, linear	3.00 $\mu\text{m}/\text{m}\cdot\text{°C}$	1.67 $\mu\text{in}/\text{in}\cdot\text{°F}$	ASTM E831
	@Temperature 25.0 - 100 °C	@Temperature 77.0 - 212 °F	
Thermal Conductivity	150 W/m-K	1040 BTU-in/hr-ft <sup>2</sup> -°F	ASTM E1461

Descriptive Properties	Value	Comments
Matrix	SiC	
Particle Reinforcement	SiC	
Vol. % Reinforcement	70	

## Contact Songhan Plastic Technology Co.,Ltd.

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