

## M Cubed Technologies RBBC-751 Reaction Bonded Boron Carbide

Category : Ceramic , Carbide , Ceramic Matrix Composite

**Material Notes:**

Reaction-bonded boron carbide for extreme wear environments. Can be cast into very large components (greater than 4 ft. square) Information provided by M Cubed Technologies, Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_M-Cubed-Technologies-RBBC-751-Reaction-Bonded-Boron-Carbide.php](http://www.lookpolymers.com/polymer_M-Cubed-Technologies-RBBC-751-Reaction-Bonded-Boron-Carbide.php)

Physical Properties	Metric	English	Comments
Density	2.56 g/cc	0.0925 lb/in <sup>3</sup>	ASTM C135

Mechanical Properties	Metric	English	Comments
Knoop Microhardness	1550	1550	kg/mm <sup>2</sup> ; ASTM C1326
	@Load 2.00 kg	@Load 4.41 lb	
Modulus of Elasticity	380 GPa	55100 ksi	ASTM E494
Flexural Strength	280 MPa	40600 psi	ASTM C1161
Poissons Ratio	0.18	0.18	ASTM E494
Fracture Toughness	5.00 MPa-m <sup>1/2</sup>	4.55 ksi-in <sup>1/2</sup>	ASTM C1421
Shear Modulus	161 GPa	23400 ksi	Calculated

Thermal Properties	Metric	English	Comments
CTE, linear	4.80 μm/m-°C	2.67 μin/in-°F	ASTM E831
	@Temperature 25.0 - 100 °C	@Temperature 77.0 - 212 °F	
Thermal Conductivity	50.0 W/m-K	347 BTU-in/hr-ft <sup>2</sup> -°F	ASTM E1461

Descriptive Properties	Value	Comments
Matrix	Si	
Particle Reinforcement	B4C	
Vol. % Reinforcement	75	

## Contact Songhan Plastic Technology Co.,Ltd.

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