

CoorsTek SC-DSLIP (SC-50) Liquid Phase Sintered Silicon Carbide

Category : Ceramic , Carbide

Material Notes:

Thermal Shock Delta Tc = 300°C - Thermal shock tests are performed by quenching samples in water from different elevated temperatures. Delta Tc is the change in temperature which results in a sharp decrease in the flexural strength of the sample. Data Provided by the manufacturer, CoorsTek, Inc.

Order this product through the following link:

http://www.lookpolymers.com/polymer_CoorsTek-SC-DSLIP-SC-50-Liquid-Phase-Sintered-Silicon-Carbide.php

Physical Properties	Metric	English	Comments
Density	3.18 g/cc	0.115 lb/in ³	ASTM C20
Water Absorption	0.00 %	0.00 %	ASTM 373
Particle Size	8.0 µm	8.0 µm	Thin Section Crystal Size

Mechanical Properties	Metric	English	Comments
Knoop Microhardness	24	24	1000 g
Modulus of Elasticity	375 GPa	54400 ksi	ASTM C848
Flexural Strength	540 MPa	78300 psi	ASTM F417
Poissons Ratio	0.21	0.21	ASTM C848
Fracture Toughness	6.90 MPa-m ^{1/2}	6.28 ksi-in ^{1/2}	Notched Beam
Shear Modulus	155 GPa	22500 ksi	Calculated

Thermal Properties	Metric	English	Comments
CTE, linear	3.30 µm/m-°C	1.83 µin/in-°F	ASTM C372
	@Temperature 25.0 - 1000 °C	@Temperature 77.0 - 1830 °F	
Specific Heat Capacity	0.800 J/g-°C	0.191 BTU/lb-°F	ASTM E1269
Thermal Conductivity	80.0 W/m-K	555 BTU-in/hr-ft ² -°F	ASTM C408
Maximum Service Temperature, Air	1000 °C	1830 °F	No Load

Descriptive Properties	Value	Comments
Color	Black	

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