

## CoorsTek SC-DSG (SC-35) Graphite Loaded Sintered Silicon Carbide

Category : Ceramic , Carbide

### Material Notes:

Thermal Shock Delta Tc = 600°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-DSG-SC-35-Graphite-Loaded-Sintered-Silicon-Carbide.php](http://www.lookpolymers.com/polymer_CoorsTek-SC-DSG-SC-35-Graphite-Loaded-Sintered-Silicon-Carbide.php)

Physical Properties	Metric	English	Comments
Density	2.80 g/cc	0.101 lb/in <sup>3</sup>	ASTM C20
Water Absorption	0.00 %	0.00 %	ASTM 373
Particle Size	6.0 µm	6.0 µm	Thin Section Crystal Size

Mechanical Properties	Metric	English	Comments
Knoop Microhardness	26	26	1000 g
Modulus of Elasticity	310 GPa	45000 ksi	ASTM C848
Flexural Strength	220 MPa	31900 psi	ASTM F417
Compressive Strength	675 MPa	97900 psi	ASTM C773
Poissons Ratio	0.18	0.18	ASTM C848
Fracture Toughness	3.20 MPa-m <sup>1/2</sup>	2.91 ksi-in <sup>1/2</sup>	Notched Beam
Shear Modulus	131 GPa	19000 ksi	Calculated

Thermal Properties	Metric	English	Comments
CTE, linear	4.40 µm/m-°C	2.44 µin/in-°F	ASTM C372
	@Temperature 25.0 - 1000 °C	@Temperature 77.0 - 1830 °F	
Specific Heat Capacity	0.820 J/g-°C	0.196 BTU/lb-°F	ASTM E1269
Thermal Conductivity	125 W/m-K	868 BTU-in/hr-ft <sup>2</sup> -°F	ASTM C408
Maximum Service Temperature, Air	1600 °C	2910 °F	No Load

Electrical Properties	Metric	English	Comments
Electrical Resistivity	<= 1e+05	<= 1e+05	ASTM D1829

Electrical Properties	Metric $\Omega\text{-cm}$	English $\Omega\text{-cm}$	Comments
	@Temperature 500 °C	@Temperature 932 °F	ASTM D1829
	$\leq 1000 \Omega\text{-cm}$	$\leq 1000 \Omega\text{-cm}$	ASTM D1829
	@Temperature 1000 °C	@Temperature 1830 °F	

Descriptive Properties	Value	Comments
Color	Black	

## 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