

CoorsTek Pure SiC™ HR CVD Silicon Carbide, > 99.9995%

Category : Ceramic , Carbide

Material Notes:

Data Provided by the manufacturer, CoorsTek, Inc.

Order this product through the following link:

http://www.lookpolymers.com/polymer_CoorsTek-Pure-SiC-HR-CVD-Silicon-Carbide-999995.php

Physical Properties	Metric	English	Comments
Density	3.21 g/cc	0.116 lb/in ³	ASTM C20
Water Absorption	0.00 %	0.00 %	ASTM 373
Particle Size	3.0 - 10 µm	3.0 - 10 µm	Thin Section Crystal Size

Mechanical Properties	Metric	English	Comments
Knoop Microhardness	27	27	1000 g
Modulus of Elasticity	462 GPa	67000 ksi	ASTM C848
Flexural Strength	468 MPa	67900 psi	ASTM F417
Poissons Ratio	0.21	0.21	ASTM C848
Fracture Toughness	3.50 MPa-m ^{1/2}	3.19 ksi-in ^{1/2}	Notched Beam
Shear Modulus	191 GPa	27700 ksi	Calculated

Thermal Properties	Metric	English	Comments
CTE, linear	4.60 µm/m-°C @Temperature 25.0 - 1000 °C	2.56 µin/in-°F @Temperature 77.0 - 1830 °F	ASTM C372
Specific Heat Capacity	0.665 J/g-°C	0.159 BTU/lb-°F	ASTM E1269
Thermal Conductivity	115 W/m-K	798 BTU-in/hr-ft ² -°F	ASTM C408
Maximum Service Temperature, Air	1600 °C	2910 °F	No Load

Electrical Properties	Metric	English	Comments
Electrical Resistivity	>= 1.00e+6 ohm-cm	>= 1.00e+6 ohm-cm	ASTM D1829

Descriptive Properties	Value	Comments
Color	Black	

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