

CeramTec Sikor® E Cordierite

Category : Ceramic , Oxide , Aluminum Oxide , Magnesium Oxide , Silicon Oxide

Material Notes:

Cordierites have low coefficients of thermal expansion and excellent resistance to thermal shock. They offer a range of thermal expansion, mechanical strength, and porosity criteria. They excel as cost-effective extruded and dry-pressed forms. Sikor® E offers higher compressive strength with slightly lower thermal shock resistance than other cordierites.

Order this product through the following link:

http://www.lookpolymers.com/polymer_CeramTec-Sikor-E-Cordierite.php

Physical Properties	Metric	English	Comments
Density	2.20 g/cc	0.0795 lb/in ³	DIN EN 623-2 / ASTM-C373 / ASTM-C20
Water Absorption	<= 0.10 %	<= 0.10 %	DIN EN 623-2 / ASTM-C373

Mechanical Properties	Metric	English	Comments
Tensile Modulus	70.0 GPa	10200 ksi	Young's; DINV ENV 843-2 / ASTM-F417
Compressive Strength	500 MPa	72500 psi	ASTM C-773-88 / DIN 51067T1

Thermal Properties	Metric	English	Comments
CTE, linear	0.600 µm/m-°C	0.333 µin/in-°F	
	@Temperature 20.0 - 200 °C	@Temperature 68.0 - 392 °F	
	0.800 µm/m-°C	0.444 µin/in-°F	ASTM-C373
	@Temperature 20.0 - 600 °C	@Temperature 68.0 - 1110 °F	
	0.900 µm/m-°C	0.500 µin/in-°F	
	@Temperature 20.0 - 1000 °C	@Temperature 68.0 - 1830 °F	
Specific Heat Capacity	0.500 J/g-°C	0.120 BTU/lb-°F	DINV ENV 821-3
	@Temperature 100 - 200 °C	@Temperature 212 - 392 °F	
Thermal Conductivity	2.00 W/m-K	13.9 BTU-in/hr-ft ² -°F	DIN EN 821-2 / ASTM-C408

Electrical Properties	Metric	English	Comments
Volume Resistivity	1000 ohm-cm	1000 ohm-cm	
	@Temperature 500 °C	@Temperature 932 °F	

Electrical Properties	Metric 1.00e+12 ohm-cm	English 1.00e+12 ohm-cm	Comments IEC 672-1
	@Temperature 100 °C	@Temperature 212 °F	
Dielectric Constant	5.0 @Frequency 1.00e+6 Hz	5.0 @Frequency 1.00e+6 Hz	IEC 672-1 / ASTM-C150
Dielectric Loss Index	0.0070 @Frequency 1.00e+6 Hz	0.0070 @Frequency 1.00e+6 Hz	IEC 672-1 / ASTM-D149,150

Descriptive Properties	Value	Comments
Color	Brown	
Thermal Shock Resistance R1 (K)	250	Hasselman (Experimental)

Contact Songhan Plastic Technology Co.,Ltd.

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