Cordierite – Magnesium Aluminosilicate

Cordierite Ceramics have excellent thermal shock properties. Our Cordierite products are low cost materials having good mechanical strength, good electrical insulation properties, good wear resistance and can function at safe operating temperatures up to 1000 C. Typical applications include, but are not limited to, electric heating elements, igniters, resistors, stand offs, band heaters, thermocouple cores, load banks, ovens, furnaces, connectors, spacers, fuses, gas grill radiants, sensors, stiffening rods, welding backers, welding ferrules.

Mechanical, Electrical, Thermal and Physical Properties

Material Grade	Cordierite
Physical Properties	
Water Absorption (%)	10
Density (g/cc)	2
Color	Tan
Mechanical Properties	
Flexural Strength (1K PSI)	14
Compressive Strength (1K PSI)	70
Tensile Strength (1K PSI)	7
Hardness (Moh's Scale)	7
Impact Resistance (Inch-Lbs.)	4.5

Electrical Properties	
Dielectric Strength (Volts/Mil)	180
Dielectric Constant (@1MHz)	6
Volume Resistivity 25 C (ohms-cm)	>1E14
Loss Index (@1MHz)	0.048
Thermal Properties	
C.O.T.E. (20-650 C)	2.9 x 10-6
Safe Operating Temperature (C)	1100
Thermal Conductivity (W/m-C)	3.4

Note: This information is for design guidance only. Du-Co will not guarantee this information as absolute values. Various geometries can affect properties