



# 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 1,100°C – 1,300°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
<b>Physical Properties</b>	
Water Absorption (%)	10
Density (g/cc)	2
Color	Tan
<b>Mechanical Properties</b>	
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



**Du-Co Ceramics Company™ A Leader in the Technical Ceramics Industry Since 1949**

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### 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 <sup>-6</sup>
Safe Operating Temperature (C)	1,100 – 1,300
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