Alumina – 96% Dense Aluminum Oxide

Alumina Ceramics have excellent electrical, wear resistant, and high temperature properties. Our Alumina products also exhibit excellent mechanical strength, and can operate at safe operating temperatures up to 1550 C. Typical applications include, but are not limited to, electrical heating elements, fuses, igniters, resistors, stand offs, thermocouple cores, load banks, ovens, furnaces, connectors, knife sharpeners, substrates, heat sinks, sensors and spacers

Mechanical, Electrical, Thermal and Physical Properties

Material Grade	96% Alumina Oxide
Physical Properties	
Water Absorption (%)	impervious:0.00
Density (g/cc)	3.7
Color	White
Mechanical Properties	
Flexural Strength (1K PSI)	60
Compressive Strength (1K PSI)	400
Tensile Strength (1K PSI)	25
Hardness (Moh's Scale)	9
Impact Resistance (Inch-Lbs.)	7

Electrical Properties

Dielectric Strength (Volts/Mil)	230
Dielectric Constant (@1MHz)	9.3
Volume Resistivity 25 C (ohms-cm)	>1E14
Loss Index (@1MHz)	0.0028

Thermal Properties

C.O.T.E. (20-650 C)	7.9 x 10-6
Safe Operating Temperature (C)	1550
Thermal Conductivity (W/m-C)	18

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