

## TECHNICAL INFORMATION

### Thin Film Ceramic Al<sub>2</sub>O<sub>3</sub>

Characteristics	Unit	Value
Alumina Content	Weight %	99.6
Color	-	White
Density	g/cm <sup>3</sup>	3.87 min
Hardness-Rockwell	-	87
Surface Finish-CLA (as-fired)	Microinches	2
Average Grain Size	Micrometer	< 1.0
Water Absorbtion	%	NIL
Gas Permeability	-	NIL
Flexural Strength	Kpsi	90
Elastic Modulus	10 <sup>6</sup> psi	54
Poisson's Ratio	-	0.20
Coefficient of Linear Thermal Expansion @ 25-200°C	10 <sup>-6</sup> /K	7.0
Thermal Conductivity @ 20°C (100°C)	W/mK	35 (26.9)
Dielectric Strength	Volts/mil	600
Dielectric Constant @ 25°C	-	9.9 +/-0.1
Dissipations Factor @ 1kHz (1MHz) ,25°C	-	0.0001 (0.0001)
Loss Index @ 1kHz (1MHz), 25°C	-	0.001 (0.001)
Electrical Resistivity @ 25°C (300°C)	Ohmcm	> 10 <sup>14</sup> (> 10 <sup>14</sup> )