

Sapphal® U Ivory Alumina

To Our Customers:

For your benefit, the following is a copy of the Material Properties Sheet provided to us by one of our International Suppliers.

Thank you for your business, we appreciate you very much. Thermal Support.

Sapphal® U			
High purity (99.9%) Ivory Alumina			
Properties		Units	Performance
Density		g/cm ³	3.9
Water absorption		%	0
Crystal Size	Average	micron	6
Color			Ivory
Gas permeability			0
Flexural strength	800°	Mpa	350
Elastic modulus	20°C	Gpa	>350
Compressive strength	20°C	Mpa	>2500
Fracture toughness	K	MPa.m ^{1/2}	5-Apr
Hardness Rockwell	45N		83
Poisson ratio	20°C		0.22
Thermal conductivity	20°C	W/m.K	>25
Coefficient of thermal expansion	25-1000°C	1x10 ⁻⁶ /°C	8.2
Specific heat	100°C	J/kg.K	880
Thermal shock resistance	ΔT	°C	200
Maximum Use Temperature		°C	1500
Dielectric strength	6.35mm	Ac-kV/mm	8.7
Dielectric loss	1 MHz 25°C		0.0004
Dielectric constant	1 MHz 25°C		9.7
<p>This chart is intended to illustrate typical properties. Property values vary with method of manufacture, size and shape of part. Data contained herein is not to be construed as absolute and does not constitute a representation or warranty for which Thermal Support or Our Supplier assumes legal responsibility. Close control of values of most properties can be maintained if specified.</p>			