

Properties of Ceramic

	Unit	Value
Chemical Composition		Al ₂ O ₃ 99.9%
<u>Mechanical</u>		
Bulk Density	g/cm ³	3.90
Porosity	%	0.5>
Modulus of Rupture, RT	MPa	500
Young's Modulus	GPa	365
Poisson's Ratio		0.25
Hardness, Hv	GPa	15.7
Fracture Toughness	MPa√m	
<u>Thermal</u>		
Thermal Expansion Coefficient	K	8.2×10^{-6}
Thermal Conductivity, RT	W/m.K	
Thermal Shock Resistance, ΔT	°C	
<u>Electrical</u>		
Dielectric Strength	KV/m	1×10^4
Electrical Resistivity	Ω.cm	20°C
		500°C
Dielectric Constant, 1Mhz		10 ¹² 10 ⁸ 10.0