

96% Alumina Substrates Material Properties

Charateristic	Test Condition	Unit	Fine	Qualify	Test Method
Color			White and dense	White and dense	Q/GTT002
Average Grain Size		μm	3-5	3-5	Q/GTT002
Density		g/cm ³	≥3.74	≥3.70	GB2413-81
Water Absorption		%	0	0	GB/T3299-1996
Hardness	Load 4.9	GPa	≥15	≥15	GB3297-82
Flexural Strength	Crooked distance 80mm	MPa	≥320	≥300	Q/GTT002
Coefficient of Linear Thermal Expansion	20-500°C	1 × 10 ⁻⁶ mm/°C	6.5-7.5	6.5-7.5	GB5594.3
	20-800°C		6.5-8.0	6.5-8.0	
Thermal Conductivity	20°C	W/(m.K)	≥24	≥20	Q/GTT002
Dielectric Strength		KV/mm	≥12	≥12	GB5593
Volume Resistivity	20°C	Ω.cm	≥1014	≥1014	Q/GTT002
	300°C		≥1011	≥1011	
	500°C		≥109	≥109	
Dielectric Constant	1MHz		9.3-10.6	9.3-10.6	Q/GTT002
Dielectric Loss	1MHz		3 × 10 ⁻⁴	3 × 10 ⁻⁴	Q/GTT002
Thermal Shock Resistance	850°C	time	≥7	≥5	Q/GTT002
Surface Roughness	Ra (λ2)	μm	0.20-0.75	0.2-0.75	Q/GTT002

Thickness of substrates available at .015"/0.025"/0.03"/0.040"(0.38/0.635/0.762/1.00mm)