

Properties of Alumina Ceramic Substrates - SU0986

Project		Test Conditions	Unit	Al ₂ O ₃
				A2296
Material		-	%	96
Appearance		-	-	White Dense
Surface Roughness		Ra	μm	0.2~0.6
Density		-	g/cm ³	≥3.75
Physical Properties	Bending Strength	3-Point Bending Resistance	MPa	≥400
	Vickers Hardness	Load 4.9	GPa	≥14
	Water Absorption	-	%	0
Thermal Performance	Thermal Conductivity	25°C	W/(m·k)	≥24
	Linear Thermal Expansion Coefficient	25°C~500°C	1×10 ⁻⁶ mm/°C	6.6~7.5
	Thermal Shock Resistance	800°C	Time	≥10
	Specific Heat	-	J/(kg·K)	880
Electrical Properties	Dielectric Constant	1MHz/25°C	-	9~10
	Dielectric Loss	1MHz/25°C	×10 ⁻⁴	≤3
	Volume Resistivity	25°C	Ω·cm	>10 ¹⁴
	Breakdown Voltage	-	KV/mm	>12
Light Performance	Reflectivity	Reflectivity Meter	-	>88%
	Whiteness	Whiteness Meter	-	>88

Remark: The value is just for review. Different working conditions may cause some difference.