

Designation		Al 999
Components		Al ₂ O ₃
Purity	%	99.9
Density	g/cm ³	3.98
Open porosity	%	0
Grain size (mli)	µm	1.8
Hardness Vickers	HV	2100
Hardness Mohs	-	9
Compressive strength	MPa	3800
Flexural strength	MPa	500
Young's modulus	GPa	380
Fracture toughness K _{1c}	MN/m ^{3/2}	4
Poisson ratio	-	0.24
Max. operating temperature	°C	1900
Thermal expansion (20-1000°C)	10 ⁻⁶ /K	8
Thermal conductivity	W/mK	30
Specific heat	J/kg K	900
Dielectric strength	kV/mm	35
Electrical resistivity (20°C/1000°C)	Ω cm	> 10 ¹⁴ / 10 ⁹
Dielectric constant (100MHz)	-	9.6
Dielectric loss factor	tan δ	10 ⁻⁴
Shaping procedures:		
· Isostatic pressing		X
· Die pressing		X
· Slip casting		
· HIP		X
Suggested applications		Bioceramics Precision parts Spheres

All information and data correspond to the present state of our knowledge concerning properties and applications. It does not guarantee certain properties for products designed for specific applications utilizing material described herein. We guarantee, however, first rate quality as lined out in our terms of delivery.