



Al<sub>2</sub>O<sub>3</sub> 99.5% Typical Physical Properties

Physical Property	Units	Typical Value
Color		Ivory-White
Density	g/cc	3.88
Hardness (Vickers)	GPa	14.3
Elastic Modulus	GPa	379
Flexural Strength (3 Pt Bend)	MPa	338
Tensile Strength	MPa	172
Compressive Strength	MPa	2137
Fracture Toughness	MPa-m <sup>-1/2</sup>	4-5
Poisson's Ratio	-	0.23
Max Use Temp	°C	1675
Coefficient of Thermal Expansion 25 - 100°C	1 x 10 <sup>-6</sup> /°C	6.3
Coefficient of Thermal Expansion 25 - 300°C	1 x 10 <sup>-6</sup> /°C	6.9
Coefficient of Thermal Expansion 25 - 600°C	1 x 10 <sup>-6</sup> /°C	7.6
Thermal Conductivity	W/mK	30
Electrical Resistivity	Ω-cm	>10 <sup>14</sup>

All properties are at room temperature (20°C) unless otherwise stated.