

Aluminium Titanate Material Data Sheet

Property	Units	AT
Description		Aluminium Titanate
Nominal Composition		Al ₂ TiO ₅
Microstructure		
Density	[g/cm ³]	3.2
Water Absorption	[%]	3
Porosity	[vol%]	10
Colour		White
Mechanical Properties		
Flexural (Bending) Strength • 20 °C • 1100 °C	[MPa] [MPa]	25 60
Youngs Modulus E	[GPa]	15
Fracture Toughness • 20 °C • 1100 °C	[MPa.m ^{1/2}] [MPa.m ^{1/2}]	1.5 3
Poisson's Ration		0.2
Thermal Properties		
Max Working Temperature	[°C]	1700
Thermal Conductivity • 20 °C • 1100 °C	[W/mK] [W/mK]	1.5 2.3
Thermal Expansion Coefficient	[x 10 ⁻⁶ /K]	1
Thermal Shock Resistance (ΔT _C)	[°C]	1000
Electrical Properties		
Specific Resistance (@20°C)	[Ωcm]	-

Note: The above values represent typical values of the most frequently produced type of Rojan Aluminium Titanate.