



99.8 ALUMINA

Composition

Alumina	Al ₂ O ₃	99.82%
Silica	SiO ₂	0.06%
Calcia	CaO	0.04%
Magnesia	MgO	0.035%
Iron Oxide	Fe ₂ O ₃	0.025%
Sodium Oxide	Na ₂ O	0.008%
Titania	TiO ₂	0.004%
Chromic Oxide	Cr ₂ O ₃	0.003%
Potassium Oxide	K ₂ O	0.001%
Boron Oxide	B ₂ O ₃	0.001%

Physical Properties

Bulk Density	Open Porosity	Flextural Strength		Compressive Strength 20°C
		20°C	1000°C	
3.91 g/cm ³	0%	380 Mpa	165 Mpa	3650 Mpa
244 #/ft ³	0%	55 ksi	24 ksi	530 ksi

Thermal Properties

Conductivity		Expansion Coefficient 20-1000°C	Max Use Temperature (no load)
20°C	800°C		
36 W/m K	8.2 W/m K	8.4x10 ⁻⁶ /°C	1800°C
250 BTU.in/ft ² .hr°F	57 BTU.in/ft ² .hr°F	4.7x10 ⁻⁶ /°F	3272°F

These values represent typical properties of standard materials. They should be used only for comparison and should not be used as a warranty.