

Material characteristics

Material

Type

Short description

Chemical Analysis (in Mass %)

Balance

Alumina ceramics

A-960

Aluminiumoxide ceramics

Al₂O₃ > 96

mainly SiO₂, MgO

Table of Characteristics

Density	g/cm ³	3,7
Porosity	%	0
Average Grain Size	µm	10

Mechanical Properties

Bending Strength (4 pt.)	MPa	290
Modulus of Elasticity	GPa	350
Fracture Toughness	MPa m ^{1/2}	-

Thermal Properties

Maximum Working Temperature	°C	to 1600
Coefficient of Thermal Expansion (20 - 1000° C)	10 ⁻⁶ K ⁻¹	8,5
Thermal Conductivity at 100 °C	W/mK	20

Electrical Properties

Specific Resistance at 20° C	Ωcm	10 ¹⁴
Dielectric Strength	kV/mm	> 18

These values are typical ceramic material properties and may vary according to product configuration and manufacturing process.