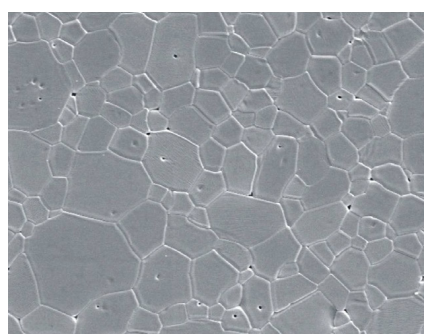




# KA997

## Alumina (Al<sub>2</sub>O<sub>3</sub>) 99,7%



Typical microstructure

### Main properties

- Excellent abrasion resistance
- Excellent dielectric properties
- High corrosion resistance
- Good thermal conductivity

### Applications

- Labware
- Furnace construction
- Abrasives industry
- Machinery parts
- Ballistic protection
- Chemical industry

### High purity alumina

Physical properties		
Parameters	Units	Value
Density	g/cm <sup>3</sup>	3.9
Flexural Strength	MPa	350
Hardness	GPa	16
Fracture toughness	MPa·√m	3.5
Young Modulus	GPa	370
Thermal conductivity	W/m·k	30
Thermal Expansion Coefficient (20-1000°C)	10 <sup>-6</sup> K <sup>-1</sup>	8.6
Maximum working temperature	°C	1550
Electrical resistivity	Ω·cm	>10 <sup>13</sup>
Dielectric strength**	KV/mm	14

\* All properties measured at 20°C unless otherwise stated

\*\* Measured in a wall thickness of 2 mm

Chemical analysis	%
Al <sub>2</sub> O <sub>3</sub>	>99.7
NaO	<0.1
CaO	<0.02
SiO <sub>2</sub>	<0.035
Fe <sub>2</sub> O <sub>3</sub>	<0.015

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