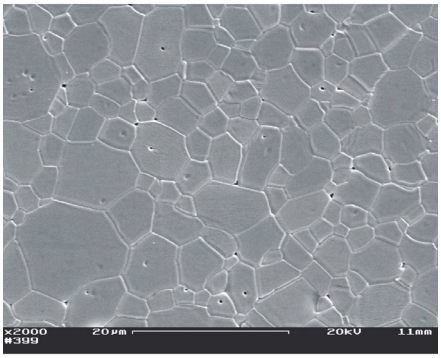
nanoker

CERAMIC TECHNICAL DATA SHEET

KA997

Aluminum Oxide 99,78%



Key Benefits

- Low coefficient of friction
- Excellent wear resistance
- High corrosion resistance
- Good thermal conductivity
- Good dielectric properties

Typical Applications

- High temperature labware
- Furnace construction
- Abrasives industry
- Mechanical engineering
- Pump & compressor industry
- Chemical & pharmaceutical industry

Main Properties		
Parameters	Unit	KA997
Density	g/cm^3	3.9
Open porosity	%	0
Flexural strength @ 20ºC	MPa	400
Hardness @ 20ºC	GPa	19.3
Fracture Toughness @ 20ºC	MPa x $m^{1/2}$	3.5
Young's Modulus @ 20ºC	GPa	370
Thermal conductivity @ 20ºC	W/mK	28
Thermal expansion (20ºC- 1000ºC)	x10^{-6}/K	8.6
Maximum working temp (No Load)	ºC	1550
Electrical resistivity @ 20ºC	Ω.cm	> 10^{13}

Chemical Composition	
Analysis	Approximate figures %
Al_2O_3	99.78
CaO	<0.05
SiO_2	<0.05
Fe_2O_3	<0.03
MgO	0.1

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