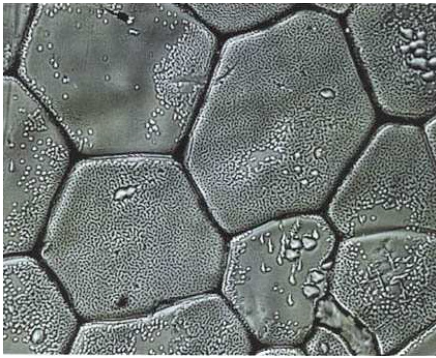


K Z M

Zirconia Mg-PSZ



Key Benefits

- High purity
- High strength up to temperatures >800°C
- High corrosion and impact resistance
- High Toughness
- Good resistance to thermal shock
- Low coefficient of friction against metals
- Thermal expansion typical of metal alloys

Typical Applications

- Foundries
- Non-ferrous metal forming industry
- Pump & compressor industry

Main Properties

Parameters	Unit	KZM
Density	g/cm ³	5.6
Open porosity	%	0
Flexural strength @ 20°C	MPa	620
Fracture Toughness	MPa x m ^{1/2}	8
Hardness @ 20°C	GPa	11
Young's Modulus @ 20°C	GPa	200
Thermal conductivity @ 20°C	W/m°K	1.9
Thermal expansion (20°C- 1000°C)	x10 ^{-6/°C}	9
Maximum working temp (No Load)	°C	1200
Electrical resistivity @ 20°C	Ω.cm	> 10 ¹³

Chemical Composition

Mineral content	Approximate figures %
MgO	3.5
ZrO ₂	96.0
TiO ₂	0.15
SiO ₂	0.12
Al ₂ O ₃	0.08
Fe ₂ O ₃	0.06
Na ₂ O	<0.1
Alkaline Earth M. Oxides	<0.2

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Nanoker Research S.L.
 Polígono de Olloniego
 Parcela 22A, Nave 5
 33660, Oviedo (Asturias)
 Spain

T +34 985 20 76 13
 F +34 985 20 56 85
 E info@nanoker.com
www.nanoker.com