

BASIC PROPERTIES

- Ceramic that can be worked with conventional metal tools
- Does not require any annealing after machining
- Can be used at high temperature, in continuous work at 800°C and 1000°C at peak.
- Low thermal conductivity: high temperature insulator
- Excellent electrical insulator
- No porosity, no degasification
- Strong and rigid unlike plastics
- Is not prone to creep or deformation at high temperatures
- Resists to radiation
- Can be metallized in thick layers
- Can be polished

APPLICATIONS

Electronic and semi conductor industries
Vacuum and ultra high vacuum industries
Nuclear industries
Medical
Optical
Aerospace
Lasers

MATERIAL		MACOR
Chemical Formula		Machinable ceramic
Aspect / color		White
Porosity		Impervious
Mechanical		Measuring unit
Poisson's ratio	-	0,29
Hardness	Rockwell	48
Hardness	Knoop	250
Shear modulus	GPa	25,5
Young modulus at 25°C	GPa	66,9
Compression resistance	MPa	345
Flexion resistance at 25°C	MPa	94
Tenacity	MPa.m ^{1/2}	1,53
Physical		
Maximum temperature use	°C	1000
Continuous use maximum temperature	°C	800
Density	g/cm ³	2,52
Water absorption	%	0
Electrical		
Dielectric constant at 25°C and 1 KHz	-	6,03
Dielectric constant at 25°C and 8,5 KHz	-	5,67
Volume resistivity at 25°C	Ohm x cm	>10 ¹⁶
Disruptive resistance (at thickness 0,01 mm)	kV/mm	40
Dielectric strength	µm/m-iC	0,35
Thermal		
Specific heat at 25°	KJ/Kg.°K	0,79
Thermal expansion coefficient from 25°C to 300°C	X10 ⁻⁷ /°C	93
Thermal expansion coefficient from 25°C to 600°C	X10 ⁻⁷ /°C	114
Thermal expansion coefficient from 25°C to 800°C	X10 ⁻⁷ /°C	126
Thermal conductivity at 25°	W/m.°C	1,46
Thermal diffusivity at 25°C	10 ⁻⁷ .m ² /s	7,3

**These values are for informational purposes only and do not bind company's responsibility.*