



STEATITE

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PROPERTIES		Unit	Steatite			
SiO ₂ MgO Content		%	94			
Color			white			
Specific weight		g/cm ³	2.6			
Porosity		%	0			
Elasticity module		Gpa	110			
Flexural strength		Mpa	140			
Compressive strength		Mpa	1200			
KIC fracture strength		MPam ^{1/2}	1.5			
Abrasion resistance		GPa	5.8			
Volume resistivity	25 °C 300 °C 700 °C	Ohm cm	>10 ¹³ >10 ¹¹ >10 ⁷			
Electrical resistance	25 °C 500 °C 1000 °C	kV/mm	>10 > 2.0			
Electrical permittivity Dielectric constant		100 MHz	5.8			
Specific heat	25- 700 °C	J/kg K	850			
Thermal conductivity	25 °C 300 °C 500 °C 800 °C	W/m K	2 3 6 8			
Coefficient thermal expansion	25- 200°C 25- 700°C 25-1000°C	10 ⁻⁶ / °C	8.5 9 10.7			
Max working temp.		°C	1000			
Res. abrupt temp. variations			modest			

Characteristics:

Good dielectric and discrete mechanical characteristics make the material ideal for electrotechnical applications - low dielectric constant (very low dielectric loss factor) and low thermal conductivity – poor resistance to thermal jumps