



Mullite Ceramic Rod

You can rest assured to buy Nextgen Mullite Ceramic Rod from our factory. Mullite Rod, made of silicate ceramic mullite, is a refractory oxide material showing low thermal expansion, good mechanical strength, and resilience at elevated high temperatures. Nextgen Advanced Materials supplies Mullite Rod with high quality and fast delivery, and customized products are also

available.

Product Description

As the professional manufacture, we would like to provide you Nextgen Mullite Ceramic Rod. And we will offer you the best after-sale service and timely delivery. Mullite rod is made of silicate ceramic mullite ($3Al_2O_3 \cdot 2SiO_2$). Mullite is a refractory oxide material combining low thermal expansion, good mechanical strength, and resilience at elevated temperatures. Raw mullite materials are easily obtained and are reasonably priced. It is certainly one of the most important oxide materials for both conventional and advanced ceramics. Its workability allows an extensive range and flexibility in fabrication. It is well suited for the casting of special shapes and larger tubes.



Mullite Rod Specifications

Chemistry Content	Al ₂ O ₃	SiO ₂	TiO ₂	Fe ₂ O ₃	CaO·MgO	K ₂ O·Na ₂ O, etc.
	62.50%	34.50%	0.10%	0.80%	0.90%	1.30%
Mechanical	Units of Measure				SI/Metric	(Imperial)

Density	gm/cc (lb/ft3)	2.8	-175
Porosity	% (%)	0	0
Color	–	off-white	off-white
Flexural Strength	MPa (lb/in ² x10 ³)	180	-26
Elastic Modulus	GPa (lb/in ² x10 ⁶)	151	-22
Shear Modulus	GPa (lb/in ² x10 ⁶)	–	–
Bulk Modulus	GPa (lb/in ² x10 ⁶)	–	–
Compressive Strength	MPa (lb/in ² x10 ³)	1310	-190
Hardness	Kg/mm ²	1070	–
Fracture Toughness KIC	MPa•m ^{1/2}	2	–
Maximum Use Temperature (no load)	°C (°F)	1650	-3000
Thermal			
Thermal Conductivity	W/m•°K (BTU•in/ft ² •hr•°F)	6	-42
Coefficient of Thermal Expansion	10–6/°C (10–6/°F)	5.4	-3
Electrical			
Dielectric Strength	ac-kv/mm (volts/mil)	9.8	-245
Dielectric Constant	@ 1 MHz	5.8	5.8
Dissipation Factor	@ 1 kHz	0.003	0.003
Volume Resistivity	ohm•cm	>10 ¹³	>10 ¹³