



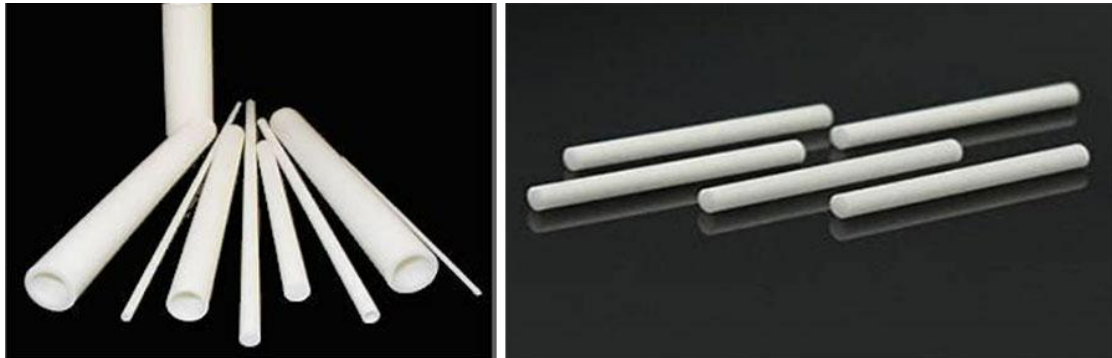
Mullite Ceramic Tube

Nextgen Mullite Ceramic Tube, 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 Ceramic Tubes with high quality and fast delivery, and customized products are also available.

Product Description

The following is the introduction of high quality Nextgen Mullite Ceramic Tube, hoping to help you better understand Mullite Ceramic Tube. Welcome new and old customers to continue to cooperate with us to create a better future! Mullite tube is made of silicate ceramic mullite. The main crystal phase of mullite tube is $3Al_2O_3 \cdot 2SiO_2$. It has 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 Ceramic Tube 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/ft ³)				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