



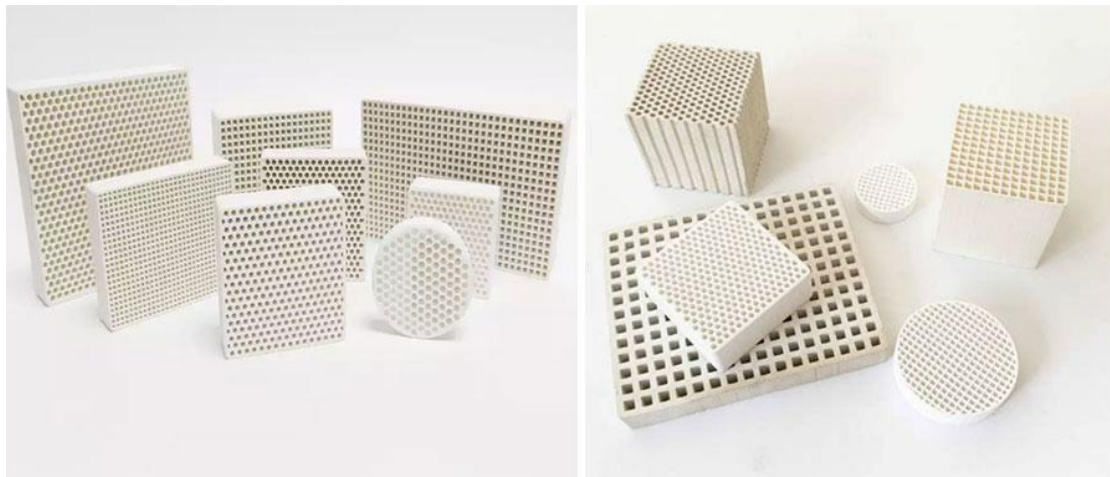
### Mullite Ceramic Plate

As the professional manufacture, we would like to provide you Nextgen Mullite Ceramic Plate. Mullite plate, made of silicate ceramic( $3\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2$ ), shows advantages of low thermal expansion, good mechanical strength, and resilience at elevated temperatures. Nextgen Advanced Materials supplies Mullite Plates 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 Plate, hoping to help you better understand Mullite Ceramic Plate. Welcome new and old customers to continue to cooperate with us to create a better future! Mullite plate is made of silicate ceramic. The main crystal phase of the mullite plate is  $3\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2$ . 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.



### Mullite Plate Specifications

Chemistry Content	Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	TiO <sub>2</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO·MgO	K <sub>2</sub> O·Na <sub>2</sub> 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 <sup>3</sup> )				2.8	-175

Porosity	% (%)	0	0
Color	–	off-white	off-white
Flexural Strength	MPa (lb/in <sup>2</sup> x10 <sup>3</sup> )	180	-26
Elastic Modulus	GPa (lb/in <sup>2</sup> x10 <sup>6</sup> )	151	-22
Shear Modulus	GPa (lb/in <sup>2</sup> x10 <sup>6</sup> )	–	–
Bulk Modulus	GPa (lb/in <sup>2</sup> x10 <sup>6</sup> )	–	–
Compressive Strength	MPa (lb/in <sup>2</sup> x10 <sup>3</sup> )	1310	-190
Hardness	Kg/mm <sup>2</sup>	1070	–
Fracture Toughness KIC	MPa•m <sup>1/2</sup>	2	–
Maximum Use Temperature (no load)	°C (°F)	1650	-3000
Thermal			
Thermal Conductivity	W/m•°K (BTU•in/ft <sup>2</sup> •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 <sup>13</sup>	>10 <sup>13</sup>