

## Goodfellow Potassium Aluminosilicate (Muscovite Mica)

Category : Ceramic , Oxide , Aluminum Oxide , Silicon Oxide

### Material Notes:

Mica is a naturally occurring mineral and as such its exact composition varies between grades, as will its properties. Ruby Mica is the highest grade of Muscovite Mica. The name comes from the Latin micare, to shine or glitter. It can be split into thin uniform layers, down to 0.05 mm. The high skill involved in such splitting results in a high cost. Mica is transparent, and resistant to heat, as well as being one of the best electrical insulators known. It is resistant to high temperatures and chemically inert to most substances. It exhibits very low water absorption. Information provided by Goodfellow.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Goodfellow-Potassium-Aluminosilicate-Muscovite-Mica.php](http://www.lookpolymers.com/polymer_Goodfellow-Potassium-Aluminosilicate-Muscovite-Mica.php)

Physical Properties	Metric	English	Comments
Density	2.60 - 3.20 g/cc	0.0939 - 0.116 lb/in³	

Mechanical Properties	Metric	English	Comments
Hardness, Mohs	2.0 - 3.0	2.0 - 3.0	
Tensile Strength at Break	170 - 300 MPa	24700 - 43500 psi	
Compressive Strength	190 - 280 MPa	27600 - 40600 psi	
Shear Strength	215 - 265 MPa	31200 - 38400 psi	

Thermal Properties	Metric	English	Comments
CTE, linear	9.00 - 36.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	5.00 - 20.0 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	
	@Temperature 20.0 - 1000 $^\circ\text{C}$	@Temperature 68.0 - 1830 $^\circ\text{F}$	
Thermal Conductivity	0.500 - 7.00 W/m-K	3.47 - 48.6 BTU-in/hr-ft²- $^\circ\text{F}$	
Maximum Service Temperature, Air	500 - 600 $^\circ\text{C}$	932 - 1110 $^\circ\text{F}$	Continuous

Optical Properties	Metric	English	Comments
Refractive Index	1.50 - 1.60	1.50 - 1.60	
Transmission, Visible	90 %	90 %	transparent; thickness not quantified

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+12 ohm-cm	1.00e+12 ohm-cm	
Dielectric Constant	6.0 - 6.6	6.0 - 6.6	

Electrical Properties	Metric	English	Comments
Electrical Strength	200 kV/mm	5080 kV/in	

Descriptive Properties	Value	Comments
Chemical Resistance - Alkalies	Good	
Chemical Resistance - Concentrated Acids	Fair	
Chemical Resistance - Dilute Acids	Good	

**Contact Songhan Plastic Technology Co.,Ltd.**

Website : [www.lookpolymers.com](http://www.lookpolymers.com)  
Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)  
Tel : +86 021-51131842  
Mobile : +86 13061808058  
Skype : lookpolymers  
Address : United North Road 215,Fengxian District, Shanghai City,China