

MICA (雲母片)

TECHNICAL DATA

Characteristic	Unit	Muscovite
Colour		Ruby / Green
Chemical Formula		$H_2KAl_3(SiO_4)_3$
Density	gm/cm ³ lb/in ³	2.6-3.2 0.095-0.116
Specific Heat		0.21
Hardness	Moh Scale Shore Test	2.8-3.2 80-105
Optic Axial Angle		55-75
Tensile Strength	kgf/cm ² lbf/in ²	about 1750 about 25000
Shear Strength	kgf/cm ² lbf/in ²	2200-2700 31000-38000
Compression Strength	kgf/cm ² lbf/in ²	1900-2850 27000-32000
Modula of Electricity	kgf/cm ² x 10 ⁻³ lbf/in ² X 10 ⁻⁶	1400-2100 20-30
Coefficient of expansion per °C perpendicular to cleavage plane		9 X 10 ⁻⁶ - 36 X 10 ⁻⁶
Calcining Temperature	C F	700-800 1290-1470
Maximum operating temperature	C F	500-600 930-1110
Thermal conductivity Perpendicular to cleavage planes	Gm.cal/sec/cm ² /C/cm BTU/hr/ft ² /ft	about 0.0013 about 0.31
Parrele to cleavage planes	Gm.cal/sec/cm ² /C/cm BTU/hr/ft ² /ft	- -
Water of constitution %		4.5
Moisture absorption		very low
Apparent electric strength	0.001" to 0.003" thick Volts per 0.001"	3000-2000
R.M.S. at 15°C (60°F)	0.01" to 0.05" thick Volts per 0.001"	1000-2000
Permittivity at 15°C (60 F)		6-7
Power Factor (loss tangent) @ 15°C		0.0001-0.0004
Volume Resistivity at 25°C (77°F) ohm cm		4 x 10 ¹³ - 2 x 10 ¹⁴
Acid reaction		Affected by Hydrofluoric Acid