



MANUFACTURERS OF  
ELECTRICAL INSULATION MATERIALS

INSULATING COMPONENTS FOR  
POWER SYSTEMS EQUIPMENT

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## MATERIAL DATA SHEET

**Item:** Silicone Bonded Mica Laminate, Grades M & P

**Description:** Mica is an alumino-silicate with exceptional physical, electrical, mechanical, and thermal characteristics with primary applications being in the area of high-volume and high-temperature electrical insulation. It has found extremely successful application as a replacement for asbestos based sheets in the construction and maintenance of electrical induction and arc furnaces, as well as many other high-temperature applications.

**Availability:** Laminate Sheets: Thickness: English Units: 0.004" to 3" SI Units: 0.1 mm to 76 mm  
Sheet Sizes: 48" x 120" 122 cm x 305 cm

**Fabricated Parts:** The Gund Company custom fabricates insulation materials to the exact specifications and drawings of our customers

Key Characteristics	Test Method	Units - English (SI)	Typical Values	
			Muscovite	Phlogopite
Density	IEC 371-2	lbs./in. <sup>3</sup> (g/cc)	0.077 (2.15)	0.77 (2.15)
Water Absorption (.125")	ASTM D-570	%	< 1	< 1
Tensile Strength	ISO 527	psi (MPa)	21,755 (150)	15,955 (110)
Compressive Strength, 20°C 200°C	ISO 604	psi (MPa)	58,015 (400) 36,259 (250)	47,862 (330) 34,809 (240)
Flame Retardance	UL 94	--	94 V-O	94 V-O
Temperature Resistance, Continuous Peak	--	°F	932 1,292	1,292 1,832
Arc Resistance	ASTM D-495	Seconds	≥ 420	≥ 420
Dielectric Strength, 68°F After 1 hr. at 752°F After 1 hr. at 1,112°F	IEC 243	V/mil (kV/mm)	625 (24.38) 325 (12.68) 250 (9.75)	625 (24.38) 325 (12.68) 250 (9.75)
Track Resistance	IEC 112	V	500	525

All of the information, suggestions, and recommendations pertaining to the properties and uses of the products herein are based upon tests and data believed to be accurate; however, the final determination regarding the suitability of any material described herein for the use contemplated, the manner of such use, and whether the use infringes any patents is the sole responsibility of the user. There is no warranty, expressed or implied, including, without limitation warranty of merchantability or fitness for a particular purpose. Under no circumstances shall we be liable for incidental or consequential loss or damage.