



THE GUND COMPANY

Manufacturers & fabricators of engineered material solutions

Material:	Mica HD		
Description:	Mica HD is an inorganic bonded mica paper laminate with exceptional physical, electrical, mechanical, and thermal characteristics. Mica HD is primarily used in areas of high voltage and high temperature electrical insulation. Mica HD is well suited for use in commutator applications. Due to the inorganic binder Mica HD will have a temperature rating of NEMA Class R or higher.		
Availability:		English Units [in]	SI Units [mm]
	Laminate Sheets:	Thickness:	0.010 to 0.079 0.25 mm to 2.0 mm
		Tolerance:	+/- 0.001" or (0.03 mm) from nominal based on average of 10 measurements Individual piece can be +/- 0.002" or (+/- 0.06 mm)
		Sheet Size:	23.6 x 39.3 600 mm x 1000 mm
	Fabricated Parts:	The Gund Company custom fabricates materials to the exact specifications and drawings of our customers.	

Key Characteristics:		Test Method	Units - English	Typical Values
Apparent Density		ASTM D-792	lb./in ³ (g/cc)	.088 (2.45)
Water Absorption		ASTM D-570 D-24/23	%	.65
Tensile Strength		ASTM D-638 A	ksi (MPa)	28.3 (195)
Flexural Strength		ASTM D-790	ksi (MPa)	29.0 (200)
Compressive Strength	Room Temp.	ASTM D-695A	ksi (MPa)	57.5 (397)
Flammability Test		UL 94	Class	V-0
Thermal Conductivity	at 23°C	ASTM E-1461	W/m°C	.23
	at 250°C			.21
Heat Stability at 220°C		IEC371-3-1	/	No leakage of binder or mica displacement
Elastic Compression		IEC371-3-1	%	≤2
Plastic Compressive Deformation (creep)		IEC371-3-1	%	≤4
Dielectric Strength		IEC371-3-1	kV/mm	≥30
Specific Heat	at 23°C	ASTM E-1269	J/kg°C	822
	at 250°C			1081
Thermal Expansion *along plane	at 110°C	ASTM E-228	10 ⁻⁶ /°C	10
	at 250°C			28
Heat Resistance	Continuous:	500°C	Peak:	700°C

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