



THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

Mica HD

Item:	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:	Laminate Sheets:		English Units (in)	SI Units (mm)
		Sheet Size:	23.6 x 39.3	600 x 1000
		Thickness:	0.010 to 0.079	0.25 to 2.0
	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)		
Fabricated Parts:	The Gund Company custom fabricates insulation materials to the exact specifications and drawings specified by our customers.			

Key Characteristics		Test Method	Units - English	Typical Values
Apparent Density		ASTM D-792	lb/in ³ (g/cc)	0.088 (2.45)
Water Absorption		ASTM D-570 D-24/23	%	0.65
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	0.23
	at 250 °C			0.21
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	28
	at 250 °C			107
Heat Resistance		Continuous: 500 °C		Peak: 700 °C

Data supplied above are typical values and are not to be considered specification values. 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 suitability of any material described herein for the contemplated application, 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.