



MANUFACTURERS OF
ELECTRICAL INSULATION MATERIALS
 INSULATING COMPONENTS FOR
POWER SYSTEMS EQUIPMENT

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MATERIAL DATA SHEET

Item:	Kapton Polyimide Film		
Description:	<p>Kapton™ polyimide film possesses a unique combination of properties previously unavailable among polymeric film materials. The ability of Kapton to maintain its excellent physical, electrical, and mechanical properties over a wide temperature range has opened new design and application areas to plastic films. Kapton has proved to be especially useful in applications involving high operating temperatures.</p> <p>Kapton is synthesized by polycondensation reaction between an aromatic dihydride and an aromatic diamine. There is no known organic solvent for the film and it is infusible and flame resistant. The outstanding properties of Kapton permit it to be used at both high and low temperature extremes where other organic materials would not be functional.</p>		
		Kapton Type HN	Kapton Type VN
Availability:	Laminate Sheets:	Gauges:	30, 50, 100, 200, 300, and 500 50, 75, 100, 200, 300, and 500
	Fabricated Parts:	The Gund Company custom fabricates insulation materials to the exact specifications and drawings of our customers.	

Key Characteristics:	Units - English (SI)	Type HN Film Film Thickness (mils)					
		.30	.50	1.00	2.00	3.00	5.00
Tensile Strength (23 °C)	psi (MPa)	16,000 (110)	20,000 (138)	24,000 (165)	24,000 (165)	24,000 (165)	24,000 (165)
Elongation	%	25	35	40	45	50	50
Shrinkage	%	4.0	4.0	2.5	2.5	2.5	2.5
Moisture Absorption	%	4.0	4.0	4.0	4.0	4.0	4.0
Dielectric Strength	VPM (kv/mm)	3,000 (117)	3,000 (117)	6,000 (234)	5,000 (195)	5,400 (211)	3,000 (117)
Volume Resistivity (200 °C)	Ohm x cm	10 ¹²	10 ¹²	10 ¹²	10 ¹²	10 ¹²	10 ¹²
Dielectric Constant (1kHz)		4.0	4.0	3.9	3.9	3.9	3.9

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.

DissipationFactor(1kHz)		.007	.005	.0036	.0036	.0036	.0036
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Key Characteristics:	Units - English (SI)	Type VN Film Film Thickness (mils)					
		.30	.50	1.00	2.00	3.00	5.00
TensileStrength(23 °C)	psi(MPa)	20,000(138)	20,000(138)	24,000(165)	24,000(165)	24,000(165)	24,000(165)
Elongation	%	35	35	45	50	60	60
Shrinkage	%	.1	.1	.1	.05	.05	.05
MoistureAbsorption	%	4.0	4.0	4.0	4.0	4.0	4.0
DielectricStrength	VPM(kv/mm)	3,000(117)	3,000(117)	6,000(234)	5,000(195)	5,400(211)	3,000(117)
VolumeResistivity(200 °C)	Ohmxcm	10 ¹²	10 ¹²	10 ¹²	10 ¹²	10 ¹²	10 ¹²
DielectricConstant(1kHz)		3.9	3.9	3.9	3.9	3.9	3.9
DissipationFactor(1kHz)		.005	.005	.0036	.0036	.0036	.0036

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 patent 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.