



MANUFACTURERS OF
ELECTRICAL INSULATION MATERIALS

INSULATING COMPONENTS FOR
POWER SYSTEMS EQUIPMENT

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MATERIAL DATA SHEET

Item: Kapton™ Polyimide Film

Description: 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

Availability: Laminate Sheets: Guages: Kapton Type HN 30, 50, 100, 200, 300, 500 Kapton Type VN 50, 75, 100, 200, 300, 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 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	V/mil (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, 1 kHz	--	4.0	4.0	3.9	3.9	3.9	3.9
Dissipation Factor, 1 kHz	--	0.007	0.005	0.0036	0.0036	0.0036	0.0036

Key Characteristics	Units - English (SI)	Type VN Film Thickness, mils					
		.50	.75	1.00	2.00	3.00	5.00
Tensile Strength, 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	%	0.1	0.1	0.1	0.05	0.05	0.05
Moisture Absorption	%	4.0	4.0	4.0	4.0	4.0	4.0
Dielectric Strength	V/mil (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, 1 kHz	--	3.9	3.9	3.9	3.9	3.9	3.9
Dissipation Factor, 1 kHz	--	0.005	0.005	0.0036	0.0036	0.0036	0.0036

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 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.