



Kapton®

polyimide film

Kapton® HPP-ST

polyimide film

Product Description

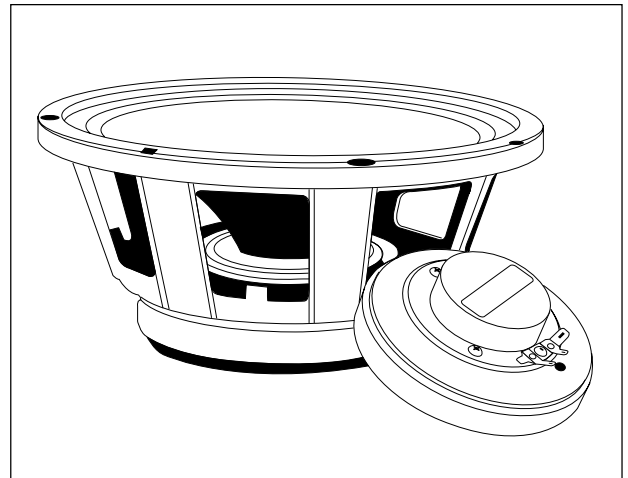
Kapton® HPP-ST has the same excellent balance of physical, chemical, and electrical properties over a wide temperature range offered by standard Kapton®. Additionally, the high-performance film offers superior dimensional stability and improved adhesion with most adhesion systems. It is now available in thicknesses up to 7 mil (180 µm).

In applications where low shrinkage and/or superior adhesion are important, Kapton® HPP-ST is the polyimide film of choice.

Applications

- Loudspeaker components
- Electronic parts
- PCB stencils
- Lead frame tape

Kapton® HPP-ST meets or exceeds ASTM D-5213 requirements.



Available Film Thicknesses

Type	mil	µm
100 HPP-ST	1	25
200 HPP-ST	2	50
300 HPP-ST	3	75
500 HPP-ST	5	125
600 HPP-ST	6	150
700 HPP-ST	7	180

Maximum width: 52 in (1,320 mm)

Typical Properties of Kapton® HPP-ST at 23°C (73°F)

Property	Unit	Typical Value						Test Method
		1 mil 25 µm	2 mil 50 µm	3 mil 75 µm	5 mil 125 µm	6 mil 150 µm	7 mil 180 µm	
Tensile Strength	kpsi (MPa)	34 234	34 234	34 234	34 234	34 234	34 234	ASTM D-882-91
Elongation	%	80	82	82	82	82	76	ASTM D-882-91
Tensile Modulus	kpsi (GPa)	400 2.8	400 2.8	400 2.8	400 2.8	440 3.1	410 2.9	ASTM D-882-91
Adhesion	pli (N/mm)	10 1.8	10 1.8	10 1.8	10 1.8	— —	— —	IPC TM-650 Method 2.4.9*
Density	g/cc	1.42	1.42	1.42	1.42	1.42	1.42	ASTM D1505-90
MIT Folding Endurance	cycles	285,000	55,000	6,000	3,000	—	—	ASTM D-2176-89
Flammability		94V0	94V0	94V0	94V0	94V0	94V0	UL-94
Shrinkage (30 min at 150°C [302°F])	%	0.03	0.03	0.03	0.03	0.03	0.03	IPC TM-650 Method 2.2.4A
Limiting Oxygen Index	%	37	43	46	45	—	—	ASTM D-2863-87
Dielectric Strength	kV/mil (kV/mm)	7.7 303	6.1 240	5.2 205	3.9 154	3.7 146	3.3 130	ASTM D-149-91
Dielectric Constant		3.4	3.4	3.5	3.5	3.5	3.5	ASTM D-150-92
Dissipation Factor at 1 kHz		0.0018	0.0020	0.0020	0.0026	—	—	ASTM D-150-92
Volume Resistivity	ohm-cm	1.5 × 10 ¹⁷	1.5 × 10 ¹⁷	1.4 × 10 ¹⁷	1.0 × 10 ¹⁷	—	—	ASTM D-257-91

*Acrylic adhesive to 1 oz copper

Packaging

Rolls of Kapton® HPP-ST are available in widths up to 52 in (1,320 mm). Each order is custom slit to customer requirements. Roll core sizes are 3-in (76-mm) and 6-in (152-mm) inside diameter.

United States

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Caution: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see "DuPont Medical Caution Statement," H-50102.



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