SynFlex Elektro GmbH
Auf den Kreuzen 24
D-32825 Blomberg Germany
Telefon +49-5235-968-0
E-Mail info@synflex.de

Kapton® HN polyimide film

The polyimide film Kapton® HN consists of polycondensed aromatic Dianhydrid and aromatic Diamin.

Attributes

Kapton® HN offers a unique combination of properties at the highest level, which are recommended for many applications in numerous branches. This PI films sustains it's excellent physical, electrical and mechanical properties within a wide temperature range. For short time it is also applicable for temperatures from -269 °C to +400 °C and is used in systems of class 240 °C. It has low flamability, is self-extinguishing and has no melting point. This PI-films offers a high chemical resistance - an organic solvent is unknown up to now. It has also a high resistance to beta and gamma radiation.

Application

This polyimide film is especially for applications with high operating temperatures for which other films are not applicable.

Standards

- UL listed, file-number E39505
- UL 94-V-0

Delivery forms

Film thickness in µm:

25, 50, 75, 125

(Thickness 12.5 on request)

Kapton® HN is available:

- in tapes starting with approx. 6 mm width
- in rolls depending on material and thickness on request

Feathering:

- depth approx. 1-12 mm, distance approx. 1-10 mm
- approx. 10 mm up to 240 mm width and 0.25 mm thickness

Base

Polyimide film of polycondensed aromatic Dianhydrid and aromatic Diamin.

The information on this data sheet is based on the information provided by our supplier. It does not represent any specification or agreements regarding conditions or properties. The indicated values are standard values. Deviations from those values due to production and application cannot be excluded. The information on this data sheet is addressed to experts who use it at their own discretion and at their own risk. We do not guarantee results, or accept liability for the indicated specifications or for results obtained based on the specifications. Please contact us for more detailed information. Non-toxic and toxic substances are listed on the safety data sheet.
Updated 06/21

Kapton® is a registered trade mark of E.I. Du Pont de Nemours and Company

SynFlex Elektro GmbH
Auf den Kreuzen 24
D-32825 Blomberg Germany
Telefon +49-5235-968-0
E-Mail info@synflex.de

Typical mechanical properties	Unit of measure					Test method
Nominal thickness	µm	25	50	75	125	
Density	g/cm³	1.42	1.42	1.42	1.42	ASTM D-1505-90
Elongation at break longitudinal	%	72	72	78	82	ASTM D-882-91
Shrinkage at 150 °C	%	0.17	0.17	0.17	0.17	ASTM D-5214-91
Tear force	MPa	231	231	231	231	ASTM D-882-91

Typical electrical properties	Unit of measure	
Nominal thickness	µm	25
Dielectric strength short term AC	kV/mm	303
Volume resistivity	Ω x m	1.5 x 10^17
Dielectric constant at 1 kHz		3.4
Dielectric loss factor at 1kHz		0.0018

The information on this data sheet is based on the information provided by our supplier. It does not represent any specification or agreements regarding conditions or properties. The indicated values are standard values. Deviations from those values due to production and application cannot be excluded. The information on this data sheet is addressed to experts who use it at their own discretion and at their own risk. We do not guarantee results, or accept liability for the indicated specifications or for results obtained based on the specifications. Please contact us for more detailed information. Non-toxic and toxic substances are listed on the safety data sheet.
Updated 06/21

Kapton® is a registered trade mark of E.I. Du Pont de Nemours and Company

SynFlex Elektro GmbH
Auf den Kreuzen 24
D-32825 Blomberg Germany
Telefon +49-5235-968-0
E-Mail info@synflex.de

Typical electrical properties	Unit of measure				Test method
Nominal thickness	µm	50	75	125	
Dielectric strength short term AC	kV/mm	240	201	154	ASTM D-149-91
Volume resistivity	Ω x m	1.5 x 10^17	1.4 x 10^17	1.0 x 10^17	ASTM D-257-91
Dielectric constant at 1 kHz		3.4	3.5	3.5	ASTM D-150-92
Dielectric loss factor at 1kHz		0.0020	0.0020	0.0026	ASTM D-150-92

The information on this data sheet is based on the information provided by our supplier. It does not represent any specification or agreements regarding conditions or properties. The indicated values are standard values. Deviations from those values due to production and application cannot be excluded. The information on this data sheet is addressed to experts who use it at their own discretion and at their own risk. We do not guarantee results, or accept liability for the indicated specifications or for results obtained based on the specifications. Please contact us for more detailed information. Non-toxic and toxic substances are listed on the safety data sheet.
Updated 06/21

Kapton® is a registered trade mark of E.I. Du Pont de Nemours and Company