SynFlex Elektro GmbH
Auf den Kreuzen 24
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E-Mail info@synflex.de

SynTherm® NKN

SynTherm® NKN is a flexible 3-ply insulation. It consists of a 25 µm polyimide film with calandered Nomex® layer on both sides.

Attributes

The excellent dielectric and thermal properties of the polyimide film and the outstanding thermal and mechanical properties of the Nomex® layers result in a high quality insulating material. The outer aramide layers protect the polyamide film against the effects of hydrolysis and mechanical load. The high specific volume resistance and the dielectric strength are not affected by temperatures below 200 °C.

Application

SynTherm® NKN is used in electric motors with a high load factor as slot insulation, phase insulation and wedges. Furthermore, it can be used in transformers and other electrical equipment as core, interlayer and final insulation if very high temperature resistance is required with simultaneous mechanical load.

Standards

- Suitable for class C (200 °C) systems
- Insulating material according to IEC 60626
- UL approved e. g. E247773
- Test standard IEC 60626-2
- Sample conditioning acc. to standard atmosphere 23/50

Delivery forms

Total thickness in µm:

200, 300, 350, 400, 530

SynTherm® NKN can be supplied:

- in slit rolls from widths of 6 mm (depending on thickness) and above
- in rolls approx. width of 900 mm
- in sheets approx. 600 x 900 mm
- 900 x 1000 mm

Overall diameter of the slit rolls/ rolls as required

approx. 240, 330 or 450 mm.

Feathering:

- depth approx. 1 - 12 mm, distance approx. 1 - 10 mm
- from widths of 10 to 240 mm and thickness of 0.20 mm

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Updated 06/24

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Base

Polyimid-film + calendered Nomex® 2-sided

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Mechanical	Unit of measure					
Total thickness	mm	0.2	0.3	0.35	0.4	0.53
Thickness tolerance	%	± 15	± 15	±15	± 15	± 15
Polyimide film thickness	µm	25	25	25	25	25
Nomex® paper thickness	µm	80	130	130/180	180	250
Specific weight	g/m²	190	300	355	410	560
Elongation at break longitudinal	%	15	15	15	15	15
Elongation at break transversal	%	15	15	15	15	15
Tensile strength transversal	N/10 mm	100	150	225	240	350
Tensile strength longitudinal	N/10 mm	160	270	430	450	650

Electrical	Unit of measure	
Total thickness	mm	0.2
Dielectric strength	kV	7

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Electrical	Unit of measure				
Total thickness	mm	0.3	0.35	0.4	0.53
Dielectric strength	kV	7	7	7	7

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