SynFlex Elektro GmbH
Auf den Kreuzen 24
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SynTherm® NPN/80

SynTherm® NPN/80 is a flexible 3-ply insulation consisting of a polyester film with a calandered Nomex® layer with green strips.

Attributes

The proven dielectric properties of the polyester film and the excellent mechanical and thermal properties of the outer Nomex® layers result in a high performance insulating material. The ability of the outer layers to absorb impregnants results in exceptional bonding between all winding components.

Application

SynTherm® NPN/80 is a cost-effective insulating material which can be installed in suitable insulating systems of class H (180 °C) and is used in electric motors as slot insulation, phase and wedges. SynTherm® NPN/80 is used as core, interlayer and final insulation for transformers.

Standards

- Suitable for class H (180 °C) systems
- Insulating material acc.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:

220, 250, 300, 360, 420, 480

SynTherm® NPN/80 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 on request: approx. 600 x 900 mm, 900 x 1000 mm

Optional overall diameter of the slit rolls/ rolls

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 07/21

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Base

PET-film + calandered Nomex® layer on both sides

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Mechanical	Unit of measure						
Total thickness	mm	0.22	0.25	0.30	0.36	0.42	0.48
Thickness tolerance max.	%	± 15	± 15	± 15	± 15	± 10	± 10
Film thickness	µm	50	75	125	190	250	300
Nomex® paper thickness	µm	80	80	80	80	80	80
Specific weight	g/m²	220	255	325	420	500	570
Elongation at break longitudinal*	%	15	15	20	20	20	20
Elongation at break transversal*	%	20	20	25	25	25	25
Tensile strength longitudinal	N/10 mm	170	190	270	320	380	430
Tensile strength transversal	N/10 mm	140	180	200	250	300	300

Electrical	Unit of measure						
Total thickness	mm	0.22	0.25	0.30	0.36	0.42	0.48

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Electrical	Unit of measure						
Dielectric strength (unfold)	kV	9	12	15	20	23	23

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