
SynTherm® NP/50

SynTherm® NP/50 is a flexible 2-layer insulation made of polyester film with calandered Nomex® overlay.

Attributes

SynTherm® NP/50 is a high-class insulation material due to the proven electrical properties of the polyester film and the excellent mechanical and thermal properties of the outer Nomex® overlays. The outer overlays' impregnant absorptivity allows excellent bonding of all winding components.

Application

SynTherm® NP/50 is an economic option and suitable for use as slot insulation, wedges, and phase insulation in electric motors.

In transformers it can be used as core, layer, or cover insulation.

Standards

- Class F (155 °C) acc. to IEC 60085
- Insulation material to IEC 60626
- RoHS conform to 2011/65/EU
- Test standard IEC 60626-2
- Sample conditioning acc. to standard atmosphere 23/50

Delivery forms

Total thickness µm:

80, 100, 140, 160, 180, 240, 300, 350, 410.

Other total thickness on request.

SynTherm® NP/50 available in delivery formats:

- tapes starting from 4 mm width
- rolls with approx. 900 mm width
- on request: approx. 600 x 900 mm
- 900 x 1000 mm

Outer diameters of tapes/ rolls optionally approx. 240/ 330/ 450 mm.

Feathering:

- depth approx. 1 - 12 mm, distance approx. 1 - 10 mm
- as of 10 mm up to 240 mm width and 0.20 mm thickness

Base

PET-film + aramid paper

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Updated 07/21

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Nomex® is a registered trademark of E.I. Du Pont de Nemours and Company.



Mechanical	Unit of measure						
Total thickness	mm	0.08	0.10	0.14	0.18	0.24	0.30
Film thickness	µm	23	50	75	125	190	250
Nomex® paper thickness	µm	50	50	50	50	50	50
Specific weight	g/m ²	95	125	160	230	320	390
Tensile strength longitudinal	N/10 mm	100	105	130	160	230	280
Tensile strength transversal	N/10 mm	70	80	90	100	200	300
Elongation at break longitudinal*	%	15	15	15	15	20	20
Elongation at break transversal*	%	20	20	20	20	20	20

Electrical	Unit of measure						
Total thickness	mm	0.08	0.10	0.14	0.18	0.24	0.30
Dielectric strength	kV	5	7	9	12	15	18

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