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## SynTherm® NP/80

SynTherm® NP/80 is a flexible 2-layer insulation made of polyester film with calandered Nomex® overlay.

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### Attributes

SynTherm® NP/80 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.

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### Application

SynTherm® NP/80 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.

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### Standards

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

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### Delivery forms

#### Total thickness µm:

220, 270, 350

other thickness on request

#### SynTherm® NP/80 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 oder 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

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## Base

Polyester film + Nomex®

Mechanical	Unit of measure			
Total thickness	mm	0.22	0.27	0.35
Thickness tolerance max.	%	± 15	± 15	± 10
Film thickness	µm	125	190	250
Nomex® paper thickness	µm	80	80	80
Specific weight	g/m²	255	340	420
Elongation at break longitudinal*	%	15	20	20
Elongation at break transversal*	%	20	25	25
Tensile strength transversal	N/10 mm	120	200	300
Tensile strength longitudinal	N/10 mm	180	230	280

Electrical	Unit of measure			
Total thickness	mm	0.22	0.27	0.35
Dielectric strength	kV	13	16	18

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