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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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Updated 07/22

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



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## Base

Polyester film + Nomex®

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| <b>Mechanical</b>                 | 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/m <sup>2</sup> | 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  |

| <b>Electrical</b>   | Unit of measure |      |      |      |
|---------------------|-----------------|------|------|------|
| Total thickness     | mm              | 0.22 | 0.27 | 0.35 |
| Dielectric strength | kV              | 13   | 16   | 18   |

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