SynFlex Elektro GmbH
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## SynTherm® AP/50

SynTherm® AP/50 is a flexible 2-layer insulation made of polyester film with calandered aramid paper overlay.

### Attributes

The proven dielectric properties of the polyester film and the excellent mechanical and thermal properties of the outer aramid paper 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® AP/50 is a cost-effective insulating material used in electric motors as slot insulation, phase insulation and wedges.
SynTherm® AP/50 is used as core, interlayer und final insulation for transformers.

### Standards

- Suitable for Class F (155 °C) systems.
- UL approved e.g. E247773

### Delivery forms

Total thickness in µm:
100, 140, 180, 240, 300. Other thicknesses on request
SynTherm® AP/50 is available:

- in tapes: depending on material thickness on request beginning at 6mm (thin material)
- in rolls: 968 mm

Feathering:

- Depth approx. 1 - 12 mm; distance approx. 1 - 10 mm
- From widths of 10 mm to 240 mm, thickness on request

### Base

PET-film + aramid paper

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| **Typical mechanical properties** | Unit of measure | | | | | |
|---|---|---|---|---|---|---|
| Nominal thickness | mm | 0.10 | 0.14 | 0.18 | 0.24 | 0.30 |
| Typical thickness | mm | 0.10±15 % | 0.13±15 % | 0.18±15 % | 0.25±15 % | 0.31±10 % |
| Film thickness | µm | 50 | 75 | 125 | 190 | 250 |
| Aramid paper thickness | µm | 50 | 50 | 50 | 50 | 50 |
| Specific weight | g/m² | 115 | 150 | 220 | 310 | 400 |
| Tensile strength longitudinal | N/cm | 90 | 120 | 160 | 270 | 320 |
| Tensile strength transversal | N/cm | 100 | 150 | 250 | 350 | 450 |

| **Typical electrical properties** | Unit of measure | |
|---|---|---|
| Nominal thickness | mm | 0.10 |
| Dielectric strength | kV | 9 |

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| **Typical electrical properties** | Unit of measure | | | | |
|---|---|---|---|---|---|
| Nominal thickness | mm | 0.18 | 0.14 | 0.24 | 0.30 |
| Dielectric strength | kV | 16 | 11 | 22 | > 25 |