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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.

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### 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.

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### 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.

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### Standards

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

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### 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

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### Base

PET-film + aramid paper

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/m <sup>2</sup>	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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Updated 07/21

SynTherm® is a registered trademark of SynFlex.



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

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