
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

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 ²	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



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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