
SynTherm® APA/80

SynTherm® APA/80 is a flexible 3-ply insulating material made of polyester film with a layer of aramid paper marked with green stripes on both sides.

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® APA/80 is a cost-effective insulating material which can be installed in suitable insulating systems of class H (180 °C) and is used in electric motors as slot insulation, phase insulation and wedges.

SynTherm® APA/80 is used as core, interlayer and final insulation for transformers.

Standards

- Suitable for class H (180 °C) systems
- UL approved e.g. E247773

Delivery forms

Total thicknesses in µm:

220, 300, 360, 480

SynTherm® APA/80 is available:

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

Feathering:

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

Base

PET-film + aramid paper on both sides

Typical mechanical properties	Unit of measure				
Nominal thickness	mm	0.22	0.30	0.36	0.48
Typical thickness	mm	0.22±15 %	0.29±15 %	0.36±15 %	0.47±10 %
Specific weight	g/m ²	205	315	405	560
Film thickness	µm	50	125	190	300
Aramid paper thickness	µm	80	80	80	80
Tensile strength longitudinal	N/cm	200	270	360	450
Tensile strength transversal	N/cm	130	240	300	350

Typical electrical properties	Unit of measure				
Nominal thickness	mm	0.22	0.30	0.36	0.48
Dielectric strength	kV	9	16	22	> 25

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