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## 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.

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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® 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.

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### Standards

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

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### 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

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### 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 <sup>2</sup>	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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