
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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