
SynTherm® AHA

SynTherm® AHA is a flexible 3-ply insulation consisting of a polyimide film with a calandered aramid paper layer on both sides.

Attributes

The excellent electric and thermal properties of the polyimide film and the excellent mechanical and thermal properties of the outer aramid paper layers result in a high performance insulating material. The outer layers protect the polyimide film against hydrolysis influences and mechanical stress.

Application

SynTherm® AHA is used in electric motors with high performance ratio as slot and phase insulation or wedge. SynTherm® AHA can also be used as core, interlayer und final insulation for transformers when a very high temperature resistance at high mechanical load is requested.

Standards

- Temperature resistant up to 180 °C

Delivery forms

Total thickness in µm: 200, 300, 400

SynTherm® AHA is available:

- tapes as of 6 mm width
- rolls approx. 920 mm width

Base

Polyimide film + calandered aramid paper on both sides

| Typical mechanical properties | Unit of measure | | | |
|-------------------------------|------------------|-----------|-----------|-----------|
| Nominal thickness | mm | 0.20 | 0.30 | 0.40 |
| Typical thickness | mm | 0.20±15 % | 0.29±15 % | 0.39±10 % |
| Specific weight | g/m ² | 190 | 315 | 440 |
| Polyimide thickness | µm | 40 | 125 | 125 |
| Aramid paper thickness | µm | 80 | 80 | 130 |
| Tensile strength longitudinal | N/10 mm | 190 | 280 | 400 |
| Tensile strength transversal | N/10 mm | 100 | 180 | 230 |

| Typical electrical properties | Unit of measure | | | |
|-------------------------------|-----------------|------|------|------|
| Nominal thickness | mm | 0.20 | 0.30 | 0.40 |
| Dielectric strength (unfold) | kV | 8 | 14 | 14 |

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Updated 10/18

