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## SynTherm® AHA

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

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### 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.

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### 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.

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### Standards

- Temperature resistant up to 180 °C

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### Delivery forms

Total thickness in µm: 200, 300, 400

SynTherm® AHA is available:

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

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### 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 <sup>2</sup> | 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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