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## SynTherm® YT564 (metastar® YT564)

SynTherm® YT564 is a synthetic electro-insulation paper consisting of a calandered, aromatic polyamide fibrille flock composition, good glue affinity and composite capacity.

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### Attributes

SynTherm® YT564 is a class H (180 °C) insulating material. Temperatures below 200 °C only slightly influence its electrical properties. The good mechanical properties can be extrapolated to significantly higher temperatures. SynTherm® YT564 is also suitable for use at temperatures to -190 °C due to its polymer structure. It has a high short-term dielectric strength. SynTherm® YT564 is compatible with all classes of common resins, varnishes, adhesives as well as transformer liquids, lubricants, and cooling agents. Common solvents may lead to slight reversible moisture expansion. SynTherm® YT564 has low flammability (UL 94V-0) and very high resistance to beta and gamma radiation.

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### Application

SynTherm® YT564 is suitable for compositing with polyester film and the polyimide film F- and H-class laminates. SynTherm® YT564 is also used for wrapping copper or aluminium conductors.

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### Standards

- Thermal class H (180 °C)
- UL file no. E358562
- UL listed (RTI mech. + electr. 210 °C)

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### Delivery forms

#### Film thicknesses in µm:

40, 50, 80, 130

#### SynTherm® YT564 is available:

- in tapes: depending on material thickness on request beginning at 6 mm (thin material)
- in rolls: 1000 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

Calandered, aromatic polyamide fibrille flock composition

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Updated 10/18



Typical mechanical properties	Unit of measure					Test method
Nominal thickness	µm	40	50	80	130	
Typical thickness	µm	40	50	80	130	GB/T451.3-2002
Specific weight	g/m <sup>2</sup>	29	38	63	116	GB/T451.2-2002
Tensile strength longitudinal	N/cm	22	32	60	125	GB/T12914-2008
Tensile strength transversal	N/cm	8	14	25	50	GB/T12914-2008
Elongation at break longitudinal	%	4.5	5.5	7.0	8.5	GB/T12914-2008
Elongation at break transversal	%	5.0	6.0	8.0	10.0	GB/T12914-2008
Shrinkage at 300 °C longitudinal	%	4.4	4.4	4.0	3.5	IEC60819-2:2002
Shrinkage at 300 °C transversal	%	3.5	3.3	3.2	3.0	IEC60819-2:2002
Elmendorf tear strength longitudinal	N	0.50	0.70	1.20	1.70	GB/T455-2002
Elmendorf tear strength transversal	N	0.70	1.10	2.00	2.80	GB/T455-2002

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Typical electrical properties	Unit of measure	
Nominal thickness	µm	40
Field intensity	kV/mm	11

Typical electrical properties	Unit of measure				Test method
Nominal thickness	µm	50	80	130	
Field intensity	kV/mm	12	12	12	GB/T1408.1-2006

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