
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.

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.

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.

Standards

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

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

Base

Calandered, aromatic polyamide fibrille flock composition

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/m²	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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Updated 10/18

SynTherm® is a registered trademark of SynFlex.



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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