flexibles

Therm-al® H

Therm-al® H Varnished Glass

- Flexible, tough construction for ease of insertion
- Excellent punch-through and abrasion resistance
- High dielectric strength
- Low moisture absorption compared to paper laminates
- Class 180° C thermal properties
- Compatible with most varnish and resin systems
- Recognized in many UL 1446 insulation systems

General description

Therm-al[®] H is a series of polyester coated closed weave glass fabrics with 180°C thermal capability, good flexibility and tear strength, and exceptionally high tensile strength. Thermal aging tests conducted in accordance with both ASTM D902 (Volatility Index of Coated Woven Glass Cloth) and ASTM D1830 (Curved Electrode Test) have proven that Therm-al[®] H has a thermal endurance in excess of 50,000 hours at 180°C.

Application

Therm-al[®] H polyester coated glass cloth is recommended for a wide variety of uses in the motor and transformer industry including phase separators, slot liners, barrier and layer insulation, bus bar, and coil wrapping.

Features		Benefits
•	High temperature class (180°C)	 Wide range of applications for motors and transformers as primary insulation up to 180°C Replaces other laminates and papers in most secondary insulation applications in systems up to 220°C
•	Very Flexible	Easily conforms to various configurations
•	Wide range of thicknesses available (.005"030")	Optimize material usage for the application
•	Available with pressure sensitive adhesive	Aids in manufacturingExcellent outer wrap for bobbin type transformers



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Construction **Catalog Number** H5 H7 H10 H10-1 H15 H25 H30 Thickness (In. Nom.) .005 .007 .010 .010 .015 .025 .030 Tolerance (In.) ±.001 ±.001 ±.001 ±.001 ±.0015 ±.002 ±.0020 Glass Cloth .004 .004 .004 .007 .007 .015 .015 Thickness (In. Nom.) **Technical Information: Typical Values** Approx. Weight .30 .45 .60 .70 .95 1.65 (lbs/syds) **Tensile Strength** (lbs per in. width) Warp 200 200 200 400 400 500 280 Fill 140 140 160 280 Elmedorf Tear Strength (Grams) Warp 400 400 400 1600 1600 1600+ 250 300 300 800 800 Fill **Gurley Stiffness** 125 185 200 700 700 3000 **Dielectric Strength** 1700 1700 1700 1100 1100 800 (vpm) 1/4" Short time Thermal Conductivity .21 .22 .225 .23 (W/mK)





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Application Method

Therm-al® H is available either plain or with pressure sensitive adhesive (with or without liner). Mica dusting is also available.

Shelf Life

Shelf life of Therm-al® H is in excess of one year when stored at room temperature.

Availability

These products are available as master rolls and in standard trimmed rolls 36" wide. Custom slitting and other packaging options available upon request.

Specifications

The properties shown in this data sheet are typical values only, and should not be used as a basis for preparing specifications. Contact our Customer Service department, (518) 344-7100 for assistance in preparation of specifications for your specific system application.

Safety Precautions

Material Safety Data Sheets defining the known hazards and describing safety precautions appropriate for this product are available upon request from Von Roll Isola USA, Inc., One West Campbell Road, Schenectady, New York 12306 (518) 344-7100. Similar information sheets for solvents and other chemicals used with this product may be obtained from the appropriate supplier and used accordingly.

DISCLAIMERS

The product properties set forth in this data sheet are based on the results of testing typical material produced by Von Roll Isola USA, Inc. Some variation in product properties is typical. Comments or suggestions relating to any subject other than product properties are offered only to call the end-user's or other person's attention to consideration of the use and/or manner of use of the product.

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EIM – Electrical Insulation Materials

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