



**Von Roll USA, Inc.**

166 Chapel St  
New Haven, CT 06513

Telephone (518) 344-7100  
www.vonroll.com

**THERM-AL® H**  
**THERM-AL® H PST**  
**THERM-AL® H 2001**

**Product 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.

Von Roll is an ISO 9001 registered company.

**Application**

THERM-AL® H 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, to name but a few. Meets NEMA Standard VF-7 and MIL-I-17205 grade "O".

THERM-AL® H is listed under UL File No. OBJS2.E63933

**Product Data**

**Thermal H**

	TH H3	TH H5	TH H7	TH H10	TH H10-1	TH H12	5JF44	TH H15	TH H15 HG	TH H25	TH H30
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ASTM D902

Finished Thickness (inches)	0.003	0.005	0.007	0.010	0.010	0.012	0.015	0.015	0.015	0.025	0.030
Base Fabric Thickness	0.002	0.004	0.004	0.004	0.007	0.007	0.004	0.007	0.007	0.015	0.015
Approximate Weight (lb./sq. yd.)	0.220	0.300	0.450	0.600	0.700	0.840	0.900	0.950	0.950	1.650	1.880
Tensile Strength, P.I.W.											
Warp	65	200	200	200	400	400	200	400	400	500	500
Fill	45	140	140	160	280	280	160	280	280	400	400
Elmendorf Tear Strength (gr)											
Warp	100	400	400	400	1600	1600	400	1600	1600	1600+	1600+
Fill	80	250	300	300	800	800	300	800	800	----	----
Gurley Stiffness	60	125	185	200	700	700	220	700	850	1800	2400
Dielectric Strength, v/m ¼" Short Time	1800	1600	1700	1700	1100	1100	1100	1100	1100	800	750
Thermal Rating °C, ASTM D1830	180	180	180	180	180	180	180	180	180	180	180
Thermal Conductivity W/m-K	----	0.21	0.22	0.23	----	0.23	0.23	0.23	0.22	0.22	0.23

**Therm-AL H** is also available with an adhesive for electrical applications which require an adhesive for positioning. This adhesive system requires very little force and no heat to apply.

**Therm-AL H PST** is supplied as a tape, with high adhesion to metals, foils, films or other insulating materials. The

adhesive does not affect the thermal rating of the material.

**Therm-AL H 2001** is made with the adhesive protected by a removable liner which is designed to handle punching of parts:

Adhesive thickness:	1 mil
Adhesive weight	1.0 oz/square yard
Adhesion to steel	1 #/inch width minimum
Liner	7 mil Kraft with a release coating
Adhesion to Liner	25-50 grams/inch

## Shelf Life

Shelf life is maximum one year when stored at room temperature.

Shelf life of Therm-AL H PST is maximum 6 months.

## Available Forms

These products are available as 36-yard rolls of slit tape from 1/2 inch wide on 1½-inch diameter cores; or as full width trimmed (36 inch) in 25, 50 and 100-yard rolls. Cut sheets, special core sizes and non-standard lengths are available on request. Thermal H can be ordered with mica dust for improved slip and handling. The mica dust does not affect the electrical performance.

## Specifications

The properties shown are typical values only and should not be used as the basis for preparing specifications. Contact Von Roll for assistance in preparation of specifications for your specific application.

## Safety Precautions

Material Safety Data Sheets (MSDS) defining the known hazards and describing safety precautions appropriate for this product are available upon request from Von Roll .

## Availability

These products are available from Von Roll or from your local authorized distributor. For the name of your distributor or for more information about these products contact Von Roll USA Inc. 200 Von Roll Drive, Schenectady, New York (518) 344-7100

## LIMITATIONS OF WARRANTY

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