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# 3M™ Glass Cloth Electrical Tape 89 with Pressure-Sensitive Rubber Thermosetting

Data Sheet

November 2008

**Description** 3M™ Glass Cloth Electrical Tape 89 is a 7-mil woven insulating glass cloth tape with pressure-sensitive rubber thermosetting white glass cloth tape. This tape is designed to operate in 600-volt dry applications requiring high mechanical strength and resistance to high temperatures. The adhesive is a pressure-sensitive rubber thermosetting system. The glass cloth is specially treated and prepared to provide corrosion-free protection. The glass cloth will not shrink, rot or burn, has a high tensile strength and is printable.

## Agency Approvals, Self Certifications, MIL Specs

Meets Requirements of:

- A-A-59770 Type GFT
- UL Recognized Component listing for 266° F (130° C), Guide OANZ2, File E17385
- Temperature not exceeding Class B, 266° F,(130° C)

RoHS Compliant 2002/95/EC" means that the product or part ("Product") does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2002/618/EC, unless the substance is in an application that is exempt under RoHS. This information represents 3M's knowledge and belief, which may be based in whole or in part on information provided by third party suppliers to 3M.

## Applications

- Insulating electric and induction-type furnace power supply leads
- Securing systems requiring high mechanical strength and resistance to high temperatures
- Splicing wire SF and SFF rated 302° F (150° C), 356° F (180° C)
- Insulating motor lead connectors, switchers and controls for furnaces and ovens
- Insulation in coil wrapping outerwrap
- Provides heat stable insulation for hot spot applications



## 3M™ Glass Cloth Electrical Tape 89

### Typical Properties

Data is not for specifications. Values are typical and should not be considered minimum or maximum. Properties measured at room temperature 73° F (~23° C) unless otherwise stated.

#### Physical

Property (Test Method) (ASTM D1000 unless noted)	Typical Value US units (metric)
<b>Color</b>	white
<b>Adhesive</b>	rubber thermosetting
<b>Backing Thickness</b>	5.0 mils (0,125 mm)
<b>Total Thickness</b>	7.0 mils (0,177 mm)
<b>Elongation (% at break)</b>	8%
<b>Operating Temperature</b>	130° C
<b>Adhesion to Steel</b>	40 oz/in (4.4 N/10 mm)

#### Electrical

Property (Test Method) (ASTM D1000 unless noted)	Typical Value US units (metric)
<b>Dielectric Breakdown</b>	2000 V
<b>Breaking Strength</b>	170 lbs/in (298 N/10 mm)
<b>Insulation Resistance</b>	4.5 x 0.11 megohms

### Specifications

3M™ Glass Cloth Electrical Tape 89 is a glass cloth electrical tape with a rubber thermosetting adhesive. The tape shall be white and 7 mils (0,177 mm) thick. The tape shall be coated on one side with pressure-sensitive adhesive, which shall not require heat, moisture or other preparation prior to or subsequent to application. The adhesive coating shall be smooth and uniform and be free of lumps and bare spots. There shall be no separator between adjacent layers of the roll. The tape shall perform at a temperature of 266° F (130° C) without loss of physical or electrical properties.

### Engineering/ Architecture

For maximum solvent resistance and holding properties, the tape should be thermoset at one of the following cycles;

- 1 hour @ 300° F(150° C)
- 2 hours @ 275° F(135° C)
- 3 hours @ 120° F(250° C)

### Shelf Life & Storage

This product has a 5-year shelf life from date of manufacture when stored in a humidity controlled storage (50°F/10°C to 80°F/27°C and <75% relative humidity).

## 3M<sup>™</sup> Glass Cloth Electrical Tape 89

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### Availability

3M<sup>™</sup> Glass Cloth Electrical Tape 89 is available in standard and custom lengths and widths. Standard length is 60 yards.

For availability, please contact your local distributor. Names and addresses are available from 3M.com/electrical [Where to Buy], or call 1-800-676-8381.

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