

Scotch® 69

Glass Cloth Electrical Tape with Silicone Pressure-Sensitive Adhesive

1. Product description

3M™ Glass Cloth Electrical Tape 69 is a white glass cloth tape with a high temperature thermosetting silicone pressure-sensitive adhesive. It is designed for use in 600-volt dry location application motors, and transformers with and without a varnish coating.

Key attributes like high mechanical strength and resistance to high temperatures provide excellent performance. The thermosetting adhesive provides an increased bond once applied in areas of high ambient temperatures. The thermosetting adhesive provides elevated temperature performance up to the Class N 200°C temperature rating.

This tape provides insulation and solvent-resistant protection for use as coil cover, anchor, banding and core, layer and crossover insulation. This tape features a noncorrosive adhesive. It is conformable, printable and flame retardant.

2. Applications

- ▶ Insulating electric and induction-type furnace power supply leads
- ▶ Securing high-temperature, non-PSA insulation (such as asbestos and glass) in high-temperature areas
- ▶ Securing Scotch® Fire Retardant Electric Arc Proofing Tape 77
- ▶ Splicing wire SF and SFF rated 150°C, 180°C
- ▶ Reinsulating and repairing coils on mining machines
- ▶ Splicing silicone-covered glass wire where splices require more abrasion resistance and mechanical strength than can be provided by silicone tapes
- ▶ Insulating Class “H” dry-type transformer leads
- ▶ Insulating splices made on SA type wire in heat treat areas
- ▶ Especially suited to high-temperature applications
- ▶ Used in a variety of coil/transformer and motor applications, including an outer wrap for bobbin wound coils, banding arbor wound coils, lead pad hold down, end turn and lead anchor and connection.

3. Typical properties

Physical properties (Test method)	Typical value
Colour	white
Adhesive	silicone
Backing thickness	0.125 mm
Total thickness	0.177 mm
Elongation (% at break)	5%
Operating temperature	200°C
Adhesion to steel	4.4 N/10 mm
UL 510 flame retardant	Yes

Electrical properties	Typical value
Dielectric breakdown	3000V
Breaking strength	314 N/10 mm
Insulation resistance	4.8 × 10 ⁴ megohms
CTI material group	1
Electrolytic corrosion factor	0.9

Data is not for specifications. Values are typical and should not be considered minimum or maximum. Properties measured at room temperature ~23°C unless otherwise stated. (ASTM D1000 unless noted).

4. User information

4.1 Specifications

3M™ Glass Cloth Electrical Tape 69 is a glass cloth electrical tape with a silicone thermosetting adhesive. The tape is white and 0.177 mm thick. The tape is coated on one side with pressure-sensitive adhesive which does not require heat, moisture, or other preparation prior to or subsequent to application. The adhesive coating should be smooth and uniform, and free of lumps and bare spots.

There is no separator between adjacent layers of the roll. The tape is UL Recognised under UL Standard 510. The tape performs at a temperature of 200°C without loss of physical or electrical properties.

4.2 Engineering/Architectural Specification

All splices for 600-volt wire rated at 130°C should be insulated with a minimum of two half-lapped layers of 3M™ Glass Cloth Electrical Tape 69.

4.3 Agency Approvals and Self Certifications

- ▶ For RoHS information, please visit www.3M.com/RoHS
- ▶ Military Specification No. Mil-I-19166C
- ▶ UL Recognised Component listing for 200°C (Guide OANZ2, File E17385)
- ▶ CSA Accepted Component 180°C, File LR93411

4.4 Shelf Life and Storage

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

4.5 Availability

3M™ Glass Cloth Electrical Tape 69 is available in standard and custom lengths and widths. Standard length is 32.9 m. For availability, please contact your local distributor.

5. Additional information

To request additional product information, see address below.

Authorized Distributor:



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Important notice

All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluates the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method or application.

Values presented have been determined by standard test methods and are average values not meant to be used for specification purposes.

All questions of warranty and liability relating to 3M products are governed by the terms of the respective sale subject, where applicable, to the prevailing law.

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