3M™ Glass Cloth Electrical Tape 69 with Silicone Pressure-Sensitive Adhesive

Data Sheet **May 2014**

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 applications motors, and transformers with and without 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 Class N 392°F (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 non-corrosive adhesive. It is conformable, printable and flame retardant.

Agency Approvals, Self Certifications, MIL Specs

Meets Requirements of:

- Military Specification No. Mil-I-19166C
- UL Recognized Component listing for 200° C (Guide OANZ2, File E17385)
- CSA Accepted Component 180° C, File LR93411

RoHS
2011/65/EU

"**RoHS** 2011/65/EU" means that the product or part does not contain any of the substances in excess of the maximum concentration values (“MCVs”) in EU RoHS Directive 2011/65/EU. The MCVs are by weight in homogeneous materials. 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 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 302° F (150° C), 356° F (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.

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)
Color	white
Adhesive	silicone
Backing Thickness	5.0 mils (0,125 mm)
Total Thickness	7.0 mils (0,177 mm)
Elongation (% at break)	5%
Operating Temperature	200° C
Adhesion to Steel	40 oz/in (4.4 N/10 mm)
UL 510 Flame Retardant	Yes

Electrical

Property (Test Method) (ASTM D1000 unless noted)	**Typical Value** US units (metric)
Dielectric Breakdown	3000 V
Breaking Strength	180 lbs/in (314 N/10 mm)`
Insulation Resistance	4.8×10^4 megohms
CTI Material Group	1
Electrolytic Corrosion Factor 3M Test Method	0.9

Specifications

3M™ Glass Cloth Electrical Tape 69 is a glass cloth electrical tape with a silicone 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 be UL Recognized under UL Standard 510. The tape shall perform at a temperature of 392° F (200° C) without loss of physical or electrical properties.

Engineering/ Architecture

All splices for 600-volt wire rated at 266° F (130° C) shall be insulated with a minimum of two half-lapped layers of Scotch® Glass Cloth Electrical Tape 69.

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).

Availability

3M™ Glass Cloth Electrical Tape 69 is available in standard and custom lengths and widths. Standard length is 36 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 or 1-800-245-3573.

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