

3MTM Glass Cloth Electrical Tape 27 with Pressure-Sensitive Rubber Thermosetting

Data Sheet

October 2008

Description

3MTM Glass Cloth Electrical Tape 27 is a 7-mil woven insulating glass cloth tape with pressure-sensitive rubber thermosetting adhesive. This tape is designed to operate in 600-volt dry applications requiring high mechanical strength and resistance to high temperatures. 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:

- UL Recognized Component listing for 302° F (150° C), Guide OANZ2, File E17385
- CSA Accepted Component 266° F,(130° C), File LR93411

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



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	rubber thermosetting
Backing Thickness	5.0 mils (0,125 mm)
Total Thickness	7.0 mils (0,177 mm)
Elongation (% at break)	5%
Operating Temperature	150° C
Adhesion to Steel	30 oz/in (3.3 N/10 mm)

Electrical

Property (Test Method) (ASTM D1000 unless noted)	Typical Value US units (metric)
Dielectric Breakdown	3000 V
Breaking Strength	150 lbs/in (252 N/10 mm)
Insulation Resistance	4.8 x 10 ⁴ megohms
CTI Material Group	1
Electrolytic Corrosion Factor 3M Test Method	0.9

Specifications

The tape 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 be UL Recognized under UL Standard 510. The tape shall perform at a temperature of 302° F (150° 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 3M™ Glass Cloth Electrical Tape 27.

**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™ Glass Cloth Electrical Tape 27

Availability

Tape 27 is available in standard and custom lengths and widths. Standard length is 60 yards.

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.

Important Notice

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

Warranty; Limited Remedy; Limited Liability

This product will be free from defects in material and manufacture at the time of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**

3M is a trademark of 3M Company.



Electrical Markets Division

6801 River Place Blvd.
Austin, TX 78726-9000
800 676 8381 or 800 245 3573
FAX: 800 828 9329 or 800 245 0329
www.3M.com/electrical/oem

Please recycle.
© 3M 2008 All rights reserved.
78-8111-0895-6_B