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

Data Sheet **October 2008**

Description

3M™ 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	4.8×10^4 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).

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.

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