

Scotch® 27

Glass Cloth Electrical Tape with Pressure-Sensitive Rubber Thermosetting

1. Product description

3M™ Glass Cloth Electrical Tape 27 is a 0.178 mm 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.

2. Applications

- ▶ Insulating electric and induction-type furnace power supply leads
- ▶ Securing systems requiring high mechanical strength and resistance to high temperatures
- ▶ Insulating motor lead connectors, switchers and controls for furnaces and ovens
- ▶ Insulation in coil wrapping outerwrap
- ▶ Provides heat stable insulation for hot spot applications

3. Typical properties

Physical properties (Test method)	Typical value
Colour	white
Adhesive	rubber thermosetting
Backing thickness	0.125 mm
Total thickness	0.177 mm
Elongation (% at break)	5%
Operating temperature	150°C
Adhesion to steel	3.3 N/10 mm

Electrical properties	Typical value
Electrical properties	Typical Value
Dielectric breakdown	3000V
Breaking strength	252 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

The tape is a glass cloth electrical tape with a rubber 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 should be no separator between adjacent layers of the roll. The tape is UL Recognised under UL Standard 510. The tape performs at a temperature of 150°C without loss of physical or electrical properties.

4.2 Engineering/Architectural Specification

All splices for 600-volt wire rated at 130°C shall be insulated with a minimum of two half-lapped layers of 3M™ Glass Cloth Electrical Tape 27.

4.3 Agency Approvals and Self Certifications

- ▶ For RoHS information, please visit www.3M.com/RoHS
- ▶ UL Recognised Component listing for 150°C (Guide OANZ2, File E17385)

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 27 is available in standard and custom lengths and widths. Standard length is 54.9 m. For availability, please contact your local distributor.

5. Additional information

To request additional product information, see address below.

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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