

## 3M™ Filament-Reinforced Electrical Tape 46 with Thermosetting Rubber Adhesive

## Data Sheet May 2021

### **Product Description**

3M™ Filament-Reinforced Electrical Tape 46 is a white, 6.5-mil (0.165 mm) thick tape composed of a polyester film glass filament reinforced backing coated on one side with a non-corrosive, thermosetting rubber pressure-sensitive adhesive.

- Commonly used in applications such as lead anchoring and banding of coils
- Adhesive requires no heat, moisture or other manner of preparation to affect application
- Designed for continuous operation not exceeding 130°C (266°F) per UL and CSA listings

### **Properties**

| Physical Properties                      | Value<br>Imperial (Metric)               | Electrical Properties                        | Value<br>Imperial (Metric) |
|--|--|--|----------------------------|
| Color - Visual                           | White                                    | Dielectric Breakdown¹ - Minimum              | 5000 V                     |
| Adhesive                                 | Thermosetting Rubber                     | Electrolytic Corrosion Factor <sup>2</sup>   | 1.0                        |
| Backing                                  | Polyester Film/Glass Filament            | Insulation Resistance <sup>1</sup> - Minimum | 20x10 <sup>6</sup> Ω       |
| Mechanical Properties                    | Value<br>Imperial (Metric)               |  |                            |
| Total Thickness <sup>1</sup>             | 6.5 +/- 1.0 mils<br>(0.165 +/- 0.025 mm) |  |                            |
| Adhesion to Steel <sup>1</sup> - Minimum | 50 oz/in (5.5 N/cm)                      |  |                            |
| Breaking Strength <sup>1</sup> - Minimum | 180 lb/in (315 N/cm)                     |  |                            |
| Elongation <sup>1</sup> - Minimum        | 5%                                       |  |                            |

#### Notes:

- 1. ASTM D1000 Test Method properties measured at room temperature 73°F (23°C) unless otherwise stated
- 2. 3M Test Method ETM-54001 1.0 equates to no corrosion observed

| Agency Approvals & Self Certifications | <ul> <li>UL Component Recognized: UL510A Standard, Category OANZ2, File No. E17385</li> <li>CSA Certified: Standard C22.2 No. 66, File No. 093411, Class 9052-30</li> </ul> |
|--|---|
|  | For Regulatory information including RoHS, REACH, please visit <u>www.3M.com/regs</u>   |
| Shelf Life & Storage                   | This product has a 5-year shelf life (from date of manufacture) when stored in humidity-controlled storage (50°F/10°C to 80°F/27°C and <75% relative humidity).             |
| Availability                           | 3M™ Filament-Reinforced Electrical Tape 46 available from 3M authorized distributors / converters   |
|  | Also available from 3M.com/oem or call 1.800.245.3573.  |

# 3M™ Filament-Reinforced Electrical Tape 46 with Thermosetting Rubber Adhesive TECHNICAL STATEMENT

**Technical Information:** The technical information, guidance, and other statements contained in this document or otherwise provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license under any 3M or third party intellectual property rights is granted or implied with this information.

**Product Selection and Use:** Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (*e.g.*, OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product in accordance with all applicable instructions and with appropriate safety equipment, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

Warranty, Limited Remedy, and Disclaimer: Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement or repair of the 3M product or refund of the purchase price. Warranty claims must be made within one (1) year from the date of 3M's shipment.

**Limitation of Liability:** Except for the limited remedy stated above, and except to the extent prohibited by applicable law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

**Disclaimer**: 3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use. Unless specifically stated otherwise on the applicable product packaging or literature, these products are not intended, labeled, or packaged for sale to or use by consumers (e.g., for home, personal, primary or secondary school, recreational/sporting, or other uses not described in the applicable product packaging or literature), and must be selected and used in compliance with applicable health and safety regulations and standards (e.g., U.S. OSHA, ANSI), as well as all product literature, user instructions, warnings, and limitations, and the user must take any action required under any recall, field action or other product use notice. Misuse of 3M industrial and occupational products may result in injury, sickness, or death. For help with product selection and use, consult your on-site safety professional, industrial hygienist, or other subject matter expert. For additional product information, visit www.3M.com

3M is a trademarks of 3M Company.



Electrical Markets Division 13011 McCallen Pass, Bldg. C Austin, TX 78753 Phone: 800.676.8381

www.3M.com/oem

Please Recycle. Printed in USA © 3M 2021. All Rights Reserved. 78-8124-4867-4 Rev B