

# 3M™ Temflex™ 170 Vinyl Electrical Tape

Data Sheet

August 2023

**Product Description**

3M™ Temflex™ 170 Vinyl Electrical Tape is a high performance, general use grade, nominal 0.18 mm thick electrical insulating tape composed of an elastic vinyl (PVC) film backing coated on one side with a non-corrosive, pressure-sensitive adhesive. Available in 9 colors.

Commonly used in these types of applications:

- UL510 Listed: Primary insulation on applications up to 600V at max temperature of 80°C and min temperature of 0°C on joints and splices in wires and cables in accordance with NFPA 70, National Electrical Code.
- CSA C22.2 No.197: As primary insulation on applications up to 1000V at max temperature of 80°C and min temperature of -10°C on joints and splices in wires and cables in accordance with Canadian Electrical Code, Part 1.
- Industrial, commercial and residential environments.
- Where Flame Retardant and Cold Resistance rating is required – UL510.
- Marking of safety areas and equipment and phase coding
- Cable jacket repair (up to 600V (UL) / 1000V (CSA) as primary insulation) and as mechanical protection when overwrapping rubber splicing, and mastic tapes used on LV/MV/HV joints and splices.
- Indoor and weather protected outdoor operations as determined by end-user where use of a professional grade vinyl electrical tape is not required.
- Where reducing moisture ingress is needed, best results achieved when used as an overwrap in combination with a rubber splicing or mastic tape product.
- For harnessing and bundling of wires and cable where minimum bulk is required.

**Typical Properties**

| <i>Physical Properties</i>   | <i>Typical Value<sup>3</sup><br/>Imperial (Metric)</i>                          | <i>Mechanical Properties</i>           | <i>Typical Value<sup>3</sup><br/>Imperial (Metric)</i> |
|--|---|--|--|
| <b>Color-Visual</b>  | Black, Blue, Red, Yellow, White, Grey, Brown, Green, Yellow/Green, Rainbow pack | <b>Thickness<sup>4</sup></b>           | 0.18mm±10%   |
| <b>Adhesive</b>  | Rubber-based  | <b>Adhesion to steel<sup>4</sup></b>   | 22oz/in (0.24N/mm)                                     |
| <b>Backing</b>   | Vinyl (PVC)   | <b>Adhesion to backing<sup>4</sup></b> | 22oz/in (0.24N/mm)                                     |
| <b>Temperature Rating<br/>UL510<sup>1</sup><br/>CSA-C22.2 No.197<sup>2</sup></b> | 0°C to 80°C<br>-10°C to 80°C  | <b>Tensile Strength<sup>4</sup></b>    | 2500psi  |
| <b>Flame Retardant –<br/>UL510</b>   | Pass  | <b>Elongation<sup>4</sup></b>          | 220%   |
| <i>Electrical Properties</i>   | <i>Typical Value<sup>3</sup><br/>Imperial (Metric)</i>                          |  |  |
| <b>Voltage Rating<br/>UL510<sup>1</sup>/CSA-C22.2<br/>No.197<sup>2</sup></b>     | 600V/1000V  |  |  |
| <b>Dielectric Strength<sup>4</sup></b>   | 1.2kV/mil   |  |  |

Notes:

1. In accordance with the National Electrical Code, NFPA 70.
2. In accordance with Canadian Electrical Code, Part 1.
3. Not for specification. Values are typical, not to be considered minimum or maximum.
4. ASTM D1000 Test Method-properties measured at room temperature 23°C unless otherwise stated.

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## **Agency Approval & Self Certifications**

- UL listed: UL510 Standard “Insulating Tape”, Category OANZ, File No. E129200.
  - CSA listed: CSA-C22.2 No.197 “PVC Insulating Tape”, File No. 605227, Class 9052-02.
  - For Regulatory information including RoHS, REACH, please visit [www.3M.com/regs](http://www.3M.com/regs)
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## **Installation Techniques**

3M™ Temflex™ 170 Vinyl Electrical Tape shall be applied in half-lapped layers with sufficient tension to produce a uniform wind. On pigtail splices, the tape shall be wrapped beyond the end of the wires and then folded back, leaving a protective cushion to resist cut-through. Wrap tape up-hill, taping from a smaller diameter surface to a larger diameter surface. Apply the tape with no tension on the last wrap to prevent flagging.

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## **Shelf Life & Storage**

This product has a 2-year shelf life (from date of manufacture) when stored in humidity-controlled storage (10°C-27°C and <75% relative humidity).

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