

3M™ Temflex™ Vinyl Electrical Tape 165

Data Sheet

October 2020

Product Description

3M Temflex Vinyl Electrical Tape 165 is a 6-mil thick, multi-purpose flame-retardant vinyl insulating tape available in 10 colors. It is designed to perform in ambient temperatures up to 194°F (90°C). The tape is conformable for cold weather application down to 32°F (0°C). It has excellent resistance to abrasion, moisture, alkalis, acid, copper corrosion and varying weather conditions. The combination of an elastic PVC backing and pressure-sensitive rubber-based adhesive provides electrical and mechanical protection with minimum bulk.

- Suitable for moderate indoor & weather protected outdoor uses
- For residential, commercial and manufacturing (OEM) environments
- Color-coding for phase identification, wire marking and safety
- Electrical insulation for wire and cable splices rated up to 600 volts
- Harnessing and bundling of wires and cables
- Wire pulling and fishing

Properties

Physical Properties	Value Imperial (Metric)	Electrical Properties	Value Imperial (Metric)
Temperature Rating - UL 510 ¹	176°F (80°C)	Voltage Rating UL 510 ¹ CSA ²	600 V 1000 V
Temperature Rating CSA - C22.2 No. 197 ²	32°F (0°C) 194°F (90°C)	Dielectric Strength ³ - Minimum Standard Condition After Humidity Conditioning	1000 V/mil (40 kV/mm) 90% of std.
Color - Visual	Black, Blue, Brown, Gray, Green, Orange, Red, Purple, White, Yellow	Insulation Resistance ³ - Minimum (High Humidity Method)	1x10 ⁶ megohms
Flame Retardant - UL 510	Pass		
Mechanical Properties	Value Imperial (Metric)		
Thickness ³ - Nominal	6 mils (0.152 mm)		
Adhesion to Steel ³ - Minimum	18 oz/in (2.0 N/cm)		
Adhesion to Backing ³ - Minimum	18 oz/in (2.0 N/cm)		
Breaking Strength ³ - Minimum	13 lb/in (23 N/cm)		
Elongation ³ - Nominal	200%		

Notes:

1. In accordance with the National Electrical Code, NFPA 70
2. In accordance with Canadian Electrical Code, Part 1
3. ASTM D1000 Test Method - properties measured at room temperature 73°F (23°C) unless otherwise stated

Agency Approvals & Self Certifications

- UL Listed: UL 510 Standard “Insulating Tape”, Category OANZ, File No. E129200
- CSA Listed: C22.2 No.197 “PVC Insulating Tape”, File No. 048769, Class 9052-02
- For Regulatory information including RoHS, REACH, please visit www.3M.com/regs



3M™ Temflex™ Vinyl Electrical Tape 165

Installation Techniques	3M Temflex Vinyl Electrical Tape 165 shall be applied in half-lapped layers with sufficient tension to produce a uniform wind (for most applications this tension will reduce the tape width to approximately 5/8 of original width). 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.
Shelf Life & Storage	This product has a 5-year shelf life (from date of manufacture) when stored in a humidity-controlled storage (10°C/50°F to 27°C/80°F and <75% relative humidity).
Availability	3M Temflex Vinyl Electrical Tape 165 is available from 3M authorized distributors Also available from 3M.com/electrical or call 1.800.245.3573.

3M and Temflex are trademarks of 3M Company.

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 direct, indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.



Electrical Markets Division

Austin, TX

Phone: 800-245-3573

www.3m.com/electrical

Please Recycle. Printed in USA.

© 3M 2020. All Rights Reserved.

78-9237-2342-9 Rev C