

3M™ Temflex™ Vinyl Electrical Tape 165

Data Sheet

August 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

Typical Properties

Physical Properties	Typical Value ³ Imperial (Metric)	Electrical Property	Typical Value ³ 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 ⁴ Standard Condition After Humidity Conditioning	1000 V/mil (39.4 kV/mm) 90% of std.
Color	Black, Blue, Brown, Gray, Green, Orange, Red, Purple, White, Yellow	Insulation Resistance ⁴ (High Humidity Method)	>1x10 ⁶ megohms
Thickness ⁴	6 mils (0.152 mm)		
Adhesion to Steel ⁴	18 oz/in (2.0 N/cm)		
Adhesion to Backing ⁴	18 oz/in (2.0 N/cm)		
Breaking Strength ⁴	13 lb/in (23 N/cm)		
Elongation ⁴	200%		
Flame Retardant - UL 510	Pass		

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 unless otherwise stated
4. 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



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Certificate of Analysis (COA)	<p>The 3M Certificate of Analysis (COA) for this product will contain the 3M specifications and test methods for the product performance attributes that the product will be supplied against. The COA must be requested at the time of purchase.</p> <p>This data sheet contains typical data and may not match the COA specifications and/or test methods that may be used for COA purposes.</p>
Installation Techniques	<p>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.</p>
Shelf Life & Storage	<p>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).</p>
Availability	<p>3M Temflex Vinyl Electrical Tape 165 is available from 3M authorized distributors</p> <p>Also available from 3M.com/electrical or call 1.800.245.3573.</p>

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78-9237-2342-9 Rev B