

3M™ Temflex™ General Use Vinyl Electrical Tape 165

Technical Data Sheet

November 2020

Product Description

3M™ Temflex™ General Use Vinyl Electrical Tape 165 is a 6-mil thick, multi-purpose flame-retardant vinyl insulating tape available in 10 colours. It is designed to perform in ambient temperatures up to 90°C (194°F). The tape is conformable for cold weather application down to 0°C (32°F). It has excellent resistance to abrasion, moisture, alkalies, 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 and weather protected outdoor uses
- For residential, commercial and manufacturing (OEM) environments
- Colour-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	Electrical Properties	Value
Temperature Rating - UL 510 ¹	80°C (176°F)	Voltage Rating UL 510 ¹ CSA ²	600 V 1000 V
Temperature Rating CSA - C22.2 No. 197 ²	0°C (32°F) 90°C (194°F)	Dielectric Strength ³ – Minimum Standard Condition After Humidity Conditioning	1000 V/mil (40 kV/mm) 90% of std.
Colour - Visual	Black, Blue, Brown, Grey, Green, Orange, Red, Purple, White, Yellow	Insulation Resistance ³ – Minimum (High Humidity Method)	1×10 ⁶ megohms
Flame Retardant - UL 510	Pass		
Mechanical Properties	Value		
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 23°C (73°F) unless otherwise stated

Agency Approvals and Self Certifications

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

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Installation Techniques

3M™ Temflex™ General Use Vinyl Electrical Tape 165 shall be applied in half-lapped layers with a 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 and Storage

This product has a 5-year shelf life (from date of manufacture) when stored in humidity-controlled storage (10°C/ 50°F to 27°C/ 80°F and <75% relative humidity).

Availability

3M™ Temflex™ General Use Vinyl Electrical Tape 165 is available from 3M authorized distributors.

For more information, visit 3M.ca/Energy or call 1 800-364-3577.

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