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Technical datasheet

Scotch® 35

Vinyl Electrical Tape

1. Product description

Scotch® 35™ Vinyl Electrical Tape is a 0.18 mm polyvinyl chloride (PVC) colour-coding tape. Outstanding electrical and mechanical properties make this tape suitable for use in phase identification, colour coding of motor leads and piping systems, and for marking safety areas. Scotch® 35™ Vinyl Electrical Tape operates over a wide range of temperatures up to 105°C. This tape is available in nine fades resistant colours. The tape is conformable for cold weather applications down to -10°C.

Scotch® 35™ Vinyl Electrical Tape is UL-Listed, CSA approved and has a VDE Marks License for IEC 60454-3-1-6/F-PVC P/90.

2. Applications

- Colour coding for phase identification, job identification and safety
- Pressure-sensitive rubber-based adhesive
- Insulating electrical wiring
- Protecting electrical conductors, motor leads and piping from moisture, alkalis, acids, corrosion, abrasion and weather

3. Typical properties

Physical properties	Typical value
Colours	Blue, Brown, Grey, Green, Orange, Red, Violet, White, Yellow
Adhesive	Pressure-sensitive rubber
Thickness	0.18 mm
Temperature Rating Continuous Operating Temperature (IEC60454-3-1) max. Temperature (CSA C22.2)	 -10°C up to 90°C 105°C
Breaking strength	30 N/10 mm
Elongation (% at break)	225%
Adhesion to steel	2.2 N/10 mm
Adhesion to backing	2.2 N/10 mm
Flagging	2.5 mm

Electrical properties	Typical value
Voltage Rating (UL 510)	600 Volts
Dielectric Breakdown Standard condition Wet condition (96 Hrs @ 23 °C)	 8,750 V* 7875 Volts
Insulation resistance (High Humidity Method)	>1×10^6 Megohms

Properties measured at room temperature 23 °C unless otherwise stated.
*Note: Dielectric strength 49,2 kV/mm

4. User information

4.1 Specifications

Scotch® 35™ Vinyl Electrical Tape is based on polyvinyl chloride (PVC) and/or its copolymers and has a rubber-based, pressure-sensitive adhesive. The tape is 0.18 mm thick, UL Listed and marked per UL Standard 510 as “Flame-Retardant.” The tape is compatible with synthetic cable insulations, jackets and splicing compounds. The tape will remain stable and will not telescope more than 2.54 mm when maintained at temperatures below 50°C.

4.2 Installation

- Apply in half-lapped layers with sufficient tension to conform and produce a uniform covering. In most applications, this tension will reduce the tape width to approximately 60% of its original width
- On a pigtail splice, wrap the tape beyond the end of the wire and then fold back and over-wrap, leaving a protective cushion to resist cut-through
- Wrap uphill, taping from a smaller diameter to a larger diameter surface. Apply the tape with no tension on the last wrap to prevent flagging

4.3 Agency Approvals & Self Certifications

- UL Listed – UL 510 Standard “Insulating Tape” (product category OANZ), File E129200; meets UL 510 labelling for “flame-retardant” for vinyl electrical tape
- CSA Certification; Standard C22.2 No.197-M1983 “PVC Insulating Tape,” File LR 48769
- VDE Marks License no. 130462 for Type 6: IEC 60454-3-1-6/F-PVC P90
- For RoHS information, please visit www.3M.com/RoHS

4.4 Shelf Life & Storage

Scotch® 35™ Vinyl Electrical Tape has a 5-year shelf life from date of manufacture when stored in a humidity controlled area (10°C to 27°C and <75% relative humidity).

4.5 Availability

Please contact your local distributor.

5. Additional information

To request additional product information, see address below.

Important notice

All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M’s control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user’s knowledge and control, it is essential that the user evaluates the 3M product to determine whether it is fit for a particular purpose and suitable for the user’s method or application.

Values presented have been determined by standard test methods and are average values not meant to be used for specification purposes.

All questions of warranty and liability relating to 3M products are governed by the terms of the respective sale subject, where applicable, to the prevailing law.

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