



# Vinyl Electrical Tape 35

Data Sheet

August 2009

|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| <b>Description</b>                                | Scotch® Vinyl Electrical Tape 35 is a 7 mil (0,178 mm) polyvinyl chloride (PVC) color-coding tape. Outstanding electrical and mechanical properties make this tape excellent for use in phase identification, color coding of motor leads and piping systems, and for marking safety areas. Scotch Tape 35 operates over a wide range of temperatures – up to 221°F (105°C); applies smoothly and conforms well above 32°F (0°C). This tape is available in nine fade resistant colors.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Agency Approvals &amp; Self Certifications</b> | <p>Underwriters' Laboratories Listed - UL 510 Standard "Insulating Tape" (product category OANZ), File E129200; meets UL 510 labeling for "flame retardant and sunlight resistant" for low temperature PVC tape.</p> <p>Canadian Standards Association Certified; CSA Standard. C22.2 No. 197-M1983 "PVC Insulating Tape," File LR 48769.</p> <p>RoHS 2002/95/EC </p> <p>RoHS Compliant 2002/95/EC" means that the product or part ("Product") does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2002/618/EC, unless the substance is in an application that is exempt under RoHS. This information represents 3M's knowledge and belief, which may be based in whole or in part on information provided by third party suppliers to 3M.</p> |
| <b>Applications</b>                               | <ul style="list-style-type: none"><li>▪ Color coding for phase identification, job identification and safety</li><li>▪ Insulating electrical wiring</li><li>▪ Protecting electrical conductors, motor leads and piping from moisture, alkalis, acids, corrosion, abrasion and weather</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Installation</b>                               | <ul style="list-style-type: none"><li>▪ 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.</li><li>▪ 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.</li><li>▪ 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.</li></ul>                                                                                                                                                                                                                                                                                                                                               |
| <b>Specifications</b>                             | Scotch Tape 35 is based on polyvinyl chloride (PVC) and/or its copolymers and has a rubber-based, pressure-sensitive adhesive. The tape shall be 7 mils thick, and be UL Listed and marked per UL Standard 510 as "Flame Retardant and Sunlight Resistant." The tape shall be compatible with synthetic cable insulations, jackets and splicing compounds. The tape will remain stable and will not telescope more than 0.1 inches when maintained at temperatures below 122°F (50°C).                                                                                                                                                                                                                                                                                                                                                                                                                                          |

## Scotch® Vinyl Electrical Tape 35

**Typical Properties** Not for specifications. Values are typical, not to be considered minimum or maximum.  
Properties measured at room temperature 73°F (~23°C ) unless otherwise stated.

### Physical

| Property (Test Method)<br>(ASTM D1000 unless noted) | Typical Value<br>US units (metric)                           |
|-----------------------------------------------------|--------------------------------------------------------------|
| Color(s)                                            | Blue, Brown, Gray, Green, Orange, Red, Violet, White, Yellow |
| Adhesive                                            | Pressure sensitive rubber                                    |
| Thickness                                           | 7 mils (0,178mm)                                             |
| Operating Temperature                               | 176°F (80°C)                                                 |
| Continuous Operating Temperature (max)              | 221°F (105°C)                                                |
| Breaking Strength                                   | 17 lb/in. (3.04 kN/m)                                        |
| Elongation (% at break)                             | 225%                                                         |
| Adhesion to Steel                                   | 20 oz/in. (223 N/m)                                          |
| Adhesion to Backing                                 | 20 oz/in. (223 N/m)                                          |
| Flagging                                            | 0.1 inch (2.5 mm)                                            |

### Electrical

| Property (Test Method)<br>(ASTM D1000 unless noted)                                      | Typical Value<br>US units (metric)                                   |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Voltage Rating (UL 510)                                                                  | 600 Volts                                                            |
| Dielectric Breakdown<br>– Standard Condition<br>– Wet Condition (96 hrs @ 23°C & 96% RH) | 8750 Volts**<br>7875 volts<br>**Note: Dielectric strength 1250 V/mil |
| High Humidity Insulation Resistance                                                      | >1 x 10 <sup>6</sup> megohms                                         |

**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** Please contact your local distributor; available from 3M.com/electrical [Where to Buy] or call 1-800-245-3573.

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