Scotch® Vinyl Electrical Tape Super 88

Data Sheet

November 2020

Product Description
Scotch® Vinyl Electrical Tape Super 88 is an 8.5-mil thick, premium grade all-weather vinyl insulating tape. It is designed to perform continuously in ambient temperatures up to 221°F (105°C). The tape is conformable for cold weather application down to 0°F (-18°C). It has excellent resistance to abrasion, moisture, alkalies, acids, corrosion and varying weather conditions (including UV exposure). The combination of an elastic PVC backing and aggressive pressure-sensitive rubber-based adhesive provides moisture-tight electrical and mechanical protection.

- Primary electrical insulation for all wire, cable splices and bus applications up to 600 volts.
- Used for protective jacketing on high voltage cable splices and repairs.
- Compatible with solid dielectric cable insulations.
- Compatible with rubber and synthetic splicing compounds.
- Compatible with epoxy and polyurethane resins.
- Inhibits corrosion of electrical conductors.
- For indoor and outdoor applications.
- Harnessing and bundling of wires and cable applications.

Typical Properties

<table>
<thead>
<tr>
<th>Physical Properties</th>
<th>Typical Value²,³,⁴ Imperial (Metric)</th>
<th>Electrical Property</th>
<th>Typical Value²,³,⁴ Imperial (Metric)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature Rating - UL 510¹</td>
<td>176°F (80°C)</td>
<td>Voltage Rating</td>
<td>UL 510¹</td>
</tr>
<tr>
<td>CSA - C22.2 No. 197²</td>
<td>0°F (-18°C) 221°F (105°C)</td>
<td>Dielectric Strength³ Standard Condition</td>
<td>V/mil High Humidity 1250 V/mil (49.2 kV/mm) 90% of std.</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
<td>Insulation Resistance³ (High Humidity Method)</td>
<td>&gt;1x10⁶ megohms</td>
</tr>
<tr>
<td>Thickness⁴</td>
<td>8.5 mils (0.216 mm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adhesion to Steel⁴</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>73°F (23°C) 0°F (-18°C)</td>
<td>28 oz/in (3.0 N/cm) 60 oz/in (6.5 N/cm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adhesion to Backing⁴</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>73°F (23°C) 0°F (-18°C)</td>
<td>28 oz/in (3.0 N/cm) 60 oz/in (6.5 N/cm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breaking Strength⁵</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>73°F (23°C)</td>
<td>20 lb/in (35 N/cm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elongation⁴</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>73°F (23°C) 0°F (-18°C)</td>
<td>250% 100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flame Retardant - UL 510</td>
<td>Pass</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.
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: CSA-C22.2 No.197 “PVC Insulating Tape”, File No. 048769, Class 9052-02
- Tested and Self-certified to meet MIL-I-24391C, (Test Report available)
- QPL Listed: QPL-24391, Designation M24391-02 for 0.75" width only
- For Regulatory information including RoHS, REACH, please visit www.3M.com/regs
## Installation Techniques

Scotch® Vinyl Electrical Tape Super 88 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 humidity-controlled storage (50°F/10°C to 80°F/27°C and <75% relative humidity).

## Availability

Scotch® Vinyl Electrical Tape Super 88 is available from 3M authorized distributors

Also available from 3M.com/electrical or call 1.800.245.3573.

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3M Electrical Markets Division

Austin, TX

Phone: 800-245-3573

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