

3M™ Highland™ Vinyl Electrical Tape

Data Sheet

July 2011

Description

3M™ Highland™ Vinyl Electrical Tape is a flame-retardant, conformable, general purpose, 7-mil thick vinyl insulation tape. This tape has excellent resistance to abrasion, moisture, alkalis, acid, copper corrosion and varying weather conditions. It is a polyvinyl chloride (PVC) tape that has a high dielectric strength and provides excellent mechanical protection with minimum bulk.

Agency Approvals & Self Certifications

UL Listed, UL 510 Standard "Insulating Tape" (product category OANZ), File E129200

RoHS 2002/95/EC 

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 2005/618/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.

Applications

- Primary electrical insulation for all wire and cable splices rated up to 600 volts and 80°C (176°F)
- Primary electrical insulation for 600 volts bus applications and protective jacketing for low and high voltage bus
- Protective jacketing for high voltage cable splices and repairs
- Harnessing of wires and cables
- For indoor or outdoor applications
- For above or below ground applications

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 Properties (Test Method ASTM D1000*)	Typical Value US units (metric)
Color	Black
Thickness*	7 mils (0,177 mm)
Temperature Rating, UL 510	80°C (176°F)
Adhesion to Steel*	25 oz. /in. (2,74 N/10mm)
Adhesion to Backing*	18 oz. /in. (1,97 N/10 mm)
Breaking Strength*	15 lbs./in. (26 N/10 mm)
Elongation*	175%
Flammability UL 510	Pass

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Typical Properties, *continued*

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.

Electrical Properties (Test Method ASTM D-1000*)	Typical Value US units
Dielectric Breakdown*	>1,200 V/mil
Insulation Resistance*	> 10 ⁶ Megohms

Installation

3M™ Highland™ Vinyl Electrical Tape should be applied in half-lapped layers with sufficient tension to produce a uniform covering. In most applications, this tension will reduce the tape's width to approximately 5/8 of its 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. **DO NOT STRETCH THE LAST INCH OF APPLIED TAPE.**

Availability

Please contact your local distributor; available from 3M.com/electrical [Where to Buy] or call 1.800.245.3573.

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).

Important Notice

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