

3M™ Electrical Tape 1076

Paper-Backed Filament Scrim Tape with Oil-Saturable Backing

Data Sheet

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Description

3M™ Electrical Tape 1076 is made of an electrical-grade paper backing, reinforced with scrim glass filaments and an oil-compatible acrylic pressure-sensitive adhesive. Unlike conventional film-backed tapes, this product paper backing construction provides for complete impregnation and saturation of the tape in adjacent layers of insulation. This feature minimizes the possibility of voids leading to corona discharges, with subsequent deterioration of insulation materials.

Polyester film used in making traditionally designed filament tapes does not absorb transformer oil. The unique coating on the back side of 1076 filament tape promotes exceptional bonding of the diamond paper insulation epoxy during the transformer baking process.

Agency Approvals & Self Certifications

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 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.

Applications

The primary application for 1076 filament tape is holding down magnet wire, copper strips (sheets) and insulation materials during the demanding coil winding process for oil filled transformer applications.

- Stable adhesive even after long exposure to transformer fluids
- Saturable backing for air entrapment resistance
- Minimal air trapped between adhesive layers in tape
- Minimum contamination of oil power factor and interfacial tension
- Stiffness for excellent handling, which promotes operator efficiency
- Diamond paper insulation thermal bonding compatibility with back side of tape

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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	Typical Value US units (metric)
Thickness	10.0 mils (0,253 mm)
Breaking Strength at Break	275 lbs/in (481 N/10 mm)
Elongation (% at break)	5%
Adhesion to Steel	40 oz/in (4.4 N/10 mm)

Electrical Property	Typical Value US units (metric)
Dielectric Breakdown	3500 V
Electrolytic Corrosion Factor (3M TM)	1.0

Specifications 3M™ Electrical Tape 1076 is a Paper-Backed Filament Scrim Tape with thermosetting acrylic pressure-sensitive adhesive.

The tape shall be coated on one side with pressure-sensitive adhesive, which shall not require heat, moisture or other preparation prior to or subsequent to application. The adhesive coating shall be smooth and uniform and be free of lumps and bare spots. There shall be no separator between adjacent layers of the roll. The tape shall perform at a temperature of -40F° (-40°C) to 221°F (105°C) without substantial loss of tensile or electrical properties

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 This 1076 filament tape is available in standard and custom widths and lengths. Standard length is 60 yards. Please contact your local distributor; available from 3M.com/electrical [Where to Buy] or call 1.800.676.8381.

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