

3M™ Copper-Coated Polyester Cloth Tape X-7001 Double-Coated with Conductive Adhesive

Data Sheet

April 2013

Product Description

3M™ Copper-Coated Polyester Cloth Tape X-7001 consists of a flexible copper-plated polyester fabric backing that is coated on both sides with a unique electrically conductive pressure-sensitive acrylic adhesive.

- Copper-plated polyester woven fabric backing
- Conductive acrylic adhesive on both sides

Agency Approvals & Self Certifications

RoHS
2011/65/EU

"RoHS 2011/65/EU" means that the product or part does not contain any of the substances in excess of the maximum concentration values ("MCVs") in EU RoHS Directive 2011/65/EU. The MCVs are by weight in homogeneous materials. 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 X-7001 tape is typically used to bond two surfaces together, both electrically and physically. An example would be adhering a conductive gasket to another conductive gasket to a conductive surface as part of the EMI shielding solution for an electronic enclosure. The unique metallized fabric backing offers the additional benefits of excellent flexibility and conformability. The fabric backing also minimizes the possibility of finger lacerations.

Typical Properties

| Properties | Typical Value |
|--|----------------------------------|
| Total thickness (backing plus adhesive) ¹ | 5.0 mil (0,13 mm) |
| Adhesion to steel ¹ | 58 oz/in (6,4 N/10 mm) |
| Electrical resistance through adhesive ² | 0.015 Ω (over a 25 x 25 mm area) |

* Foot notes: 1. ASTM-D-1000 Test method

2. S/3M Test method 1

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Conductivity Since X-7001 tape double-sided metallized fabric conductive tape would typically be used as an electrical path between two surfaces, its most important feature is its conductivity. Conductive particles in the acrylic adhesive provide a multitude of electrical paths between the application substrate and the surface of the aluminum foil on each side. The resistance of the conductive path through the adhesive (measured over a 25 x 25 mm area) typically measures 15-20 milliohms

Specifications 3M Copper-Coated Polyester Cloth Tape X-7001 consists of a flexible copper-plated polyester fabric backing that is coated on both sides with a unique electrically conductive pressure-sensitive acrylic 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 266°F (130°C) without substantial loss of tensile or electrical properties.

Shelf-Life 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 The X-7001 tape is available in standard and custom widths and lengths. Standard length is 10 m.

Please contact your local distributor; available from 3M.com/electrical [Where to Buy] or call 1.800.676.8381.

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