

3M™ Electrically Conductive Double-Sided Nonwoven Tape 9750

Product Description

3M™ Electrically Conductive Double-Sided Nonwoven Tape 9750 is an isotropically electrical conductive tape. It consists of conductive nonwoven coated with a unique electrically conductive pressure-sensitive acrylic adhesive.

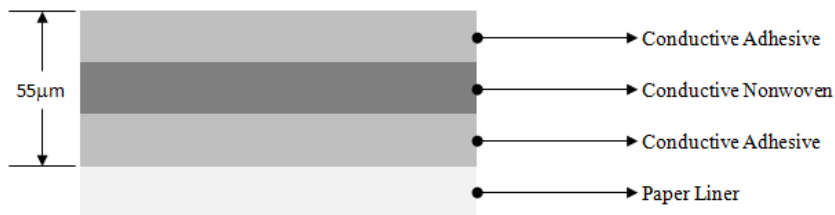
3M™ Electrically Conductive Double-Sided Nonwoven Tape 9750 offers a double-sided tape providing both high adhesion and very good electrical conductivity.

3M™ Electrically Conductive Double-Sided Nonwoven Tape 9750 offer excellent handling characteristics and conductivity through the thickness (Z-axis) and in the plane (X, Y planes).

3M™ 9750 tape is available in standard and custom widths and lengths. Standard length is 50M. Please contact 3M to review custom width and length options.

Product Construction/Material Description

EMI/EMC# 9750	
Color	Grey
Carrier Type	Conductive nonwoven
Adhesive Type	Double conductive acrylic pressure sensitive adhesive
Tape Thickness	55 µm nominal (typical thickness tolerance 54µm -66µm)
Liner Color, Type	White PCK with “3M Electronics” logo in red



Features and Benefits

- Conductive nonwoven → Double-sided tape providing high adhesion
- 3M Conductive acrylic adhesive → Both good Z-axis and X,Y planes conductivity
- Supplied on a removable liner → Easy handling and die-cutting
- Halogen Free → Meets industry guidelines



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Applications

3M™ Electrically Conductive Double-Sided Nonwoven Tape 9750 is used for conductive connection of ESD grounding, EMI shields and EMI gasket attachment to electronic and electrical devices.

It may be used as grounding tape for electrical modules, or combined with many types of foil laminate shields to provide a customized shielding solution, and may also be used to attach conductive fabric/foam core EMI gaskets to electronic cabinetry. Tape 9750 may be applied in strips or die cut to specific shapes and sizes to meet the design.

Typical Physical Properties and Performance Characteristics

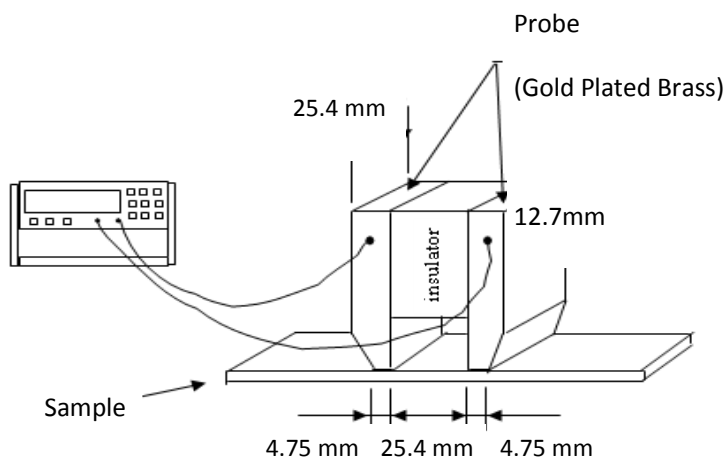
Property	Value	Test
180° Peel Adhesion	80 N/100mm (20 minutes @RT)	ASTM D 3330
Surface resistance of backing	$\leq 0.09\Omega/\square$	3M Test Method
Electrical Resistance through adhesive	$\leq 0.02\Omega/\text{inch}^2$	3M Test Method
Operating Temperature Range Typical *	85°C (185 F) for Long Term (days, weeks) 121°C (250 F) for Short Term (minutes, hours)	ASTM D792
Shelf Life	See TDS Storage and Shelf Life section	3M Test Method

Note * : 3M™ Electrically Conductive Double-Sided Nonwoven Tape 9750 is not suggested for excessive high or low temperature excursions where the application performance might be compromised. The user is recommended to conduct application evaluation to determine the fit-for-purpose of Tape 9750 in their design.

3M Conductivity Test Methods

1. Surface Electrical Resistance Test Method

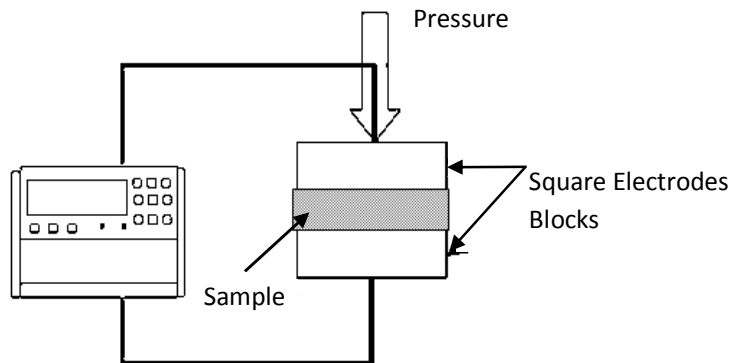
MIL-G-83528 surface Probe, Surface resistance of a material, SR Unit: Ω/\square



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2. Contact Electrical Resistance Test Method

MIL-STD-202 Method 307 maintained at 5 psi (3.4N/cm²) measured on 1 square inch surface area, CR Unit : Ω /inch²



Application Techniques*

3M™ Electrically Conductive Double-Sided Nonwoven Tape 9750 T tape's bond strength depends on the amount of adhesive-to-surface contact developed during application and substrate type and surface conditions.

- 1) Firm application pressure helps develop better wet-out and adhesive contact and may lead to improved bond strength as well as electrical conductivity. Pressure must be applied to the bond area after assembly to ensure sufficient wet-out of the 9750 adhesive to the substrates and to engage the conductive acrylic adhesive fillers with the substrates to make electrical connection. Mechanical pressure (roller, metal bar) or finger pressure at 5-15 psi.

(Optimally the application conditions are determined via a set of Design of Experiments (DOE) using a range of application pressures, dwell time and temperatures (suggested initial range might include 5-15psi, 2-5 seconds, 21C-38C).

- 2) Heat may be applied simultaneously with pressure to improve wetting, final bond strength and electrical conductivity. Suggested temperature range to evaluate is in the 38C-60C range.
- 3) To obtain optimum adhesion, the bonding surfaces must be clean, dry and well unified. Some typical surface cleaning solvents are isopropyl alcohol or heptanes.

Note *: Carefully read and follow the manufacturer's precautions and directions for use when working with solvents. Tape application below 10°C (50°F) is not suggested. Once properly applied, low temperature holding power is generally satisfactory.



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Environmental Performance

Agency Approvals & Self Certifications



RoHS 2011/65/EU

RoHS Compliant 2011/65/EU” means that the product or part (“Product”) does not contain any of the substances in excess of the maximum concentration values in EU Directive 2011/65/EU, as amended by Commission Decision 2011/65/EU, 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.

Storage and Shelf Life

Tape in roll form and stored in original shipping packaging: Shelf life is 12 months from the date of manufacture when stored in original cartons at 21°C (70°F) and 50% relative humidity.

Regulatory (Certification/Recognition)

MSDS: 3M will prepare MSDS for the products which are subject to the MSDS requirements of the Occupational Safety and Health Administration’s Hazard Communication Standard, 29 C.F.R.

TSCA: The product is defined as articles under the Toxic Substances Control Act and therefore, is exempt from inventory listing requirements.

For Additional Information

To request additional product information or to arrange for sales assistance, contact your local 3M Technical Service. In the P.R. China., address correspondence to: 3M, Electronics Markets Materials Division, 3M China R&D Center, No.222 TianLin Road, Shanghai, 200233. Our Phone Number: 021-22105335 for R&D reception transfer.

Technical Information and Data

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Important Notice

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