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Technical Data | June 2026

3M™ Electrically Conductive Double-Sided Tape 9793KW Series

Product Description

3M™ Electrically Conductive Double-Sided Tape 9793KW Series is an XYZ-axis electrically conductive pressure sensitive adhesive (PSA) tape. 3M tape 9793KW series consists of a PSA and a conductive matrix carrier and is used as a PSA attachment to a grounding surface. The product is an acrylic based adhesive solution and offers adhesion and grounding performance to many surface types. 3M tape 9793KW series provides consistent electrical grounding performance with small contact areas and PSA attachment, making it an excellent solution for EMI shielding designs.

Key Features

- Conductive matrix for reliable electrical performance
- Conformable CPSA design for sufficient surface wet-out and consistent adhesion
- Consistent grounding capabilities
- Excellent EMI Shielding performance
- High adhesion properties
- Compressible construction to support gap tolerance and potential stiffness coupling
- Available in multiple thickness variations for design flexibility and surface variation

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Release Liner

Acrylic adhesive with conductive matrix

Release Liner

Product Construction / Materials Descriptions

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

3M™ Electrically Conductive Double-Sided Tape 9793KW Series*	
Color	Face Side and Back Side: Grey metallic
Adhesive Type	Acrylic adhesive with conductive matrix
Release Liner	Face Side and Back Side: Transparent PET release liner 9793KW-400 and thinner versions: Dual Liner 9793KW-450 and thicker versions: Single liner

Note: *The product is available in 1050 mm x 100 meters. Please contact your local 3M representative for more information.

3M™ Electrically Conductive Double-Sided Tape 9793KW Series
Typical Physical Properties and Performance Characteristics

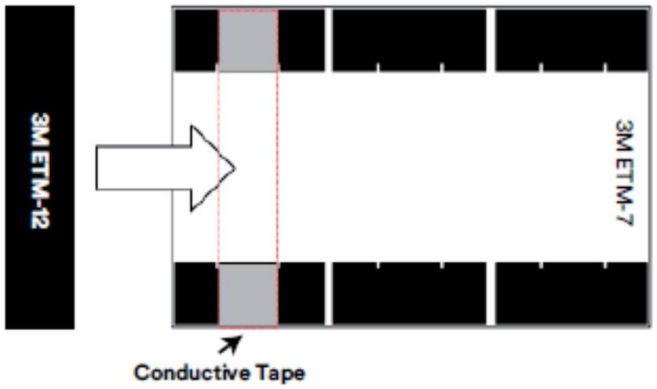
Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes. Final product specifications and testing methods will be outlined in the product's Certificate of Analysis (COA) that is shipped with the commercialized product.

3M™ Electrically Conductive Double-Sided Tape 9793KW Series													
Property	**Test Method**	**Target Value**											
9793KW-XXX		9793K W-150	9793K W-200	9793K W-250	9793K W-300	9793K W-350	9793K W-400	9793K W-450	9793K W-500	9793K W-550	9793K W-600	9793K W-650	9793K W-800
Thickness (µm)	ASTM D1000*	150	200	250	300	350	400	450	500	550	600	650	800
Adhesion to SUS Face Side (gf/inch)	ASTM D1000*	1200	1600	1600	2000	2000	2000	2000	2000	2000	2000	2000	2500
Adhesion to SUS Back Side (gf/inch)	ASTM D1000*	1600	1600	1600	2000	2000	2000	2000	2000	2000	2000	2000	2500
Electrical Resistance through Z-Axis	3M ETM-12**	0.02Ω~0.20Ω											

*Tested in accordance with ASTM D1000 test method.
**3M test method notes attached.

ETM-12: Z-Axis Electrical Resistance through Adhesive**

Place conductive tape pieces in 10 mm x 10 mm on the center of the electrodes on 3M ETM-7 testing board. Then place 3M ETM-12 testing board with the gold-plated side down on the tapes between electrodes. After initial hand lamination to provide for a 10 mm x 10 mm contact area between the tapes and electrodes, apply 2kg rubber roller across the tape one time. Application method simulates a typical manufacturing process that might be used to apply the tapes to the surface. After 20 minutes of dwell time, the DC resistance between the electrodes is measured with a micro-ohm meter. The resistance results are recorded after 5 ~ 30 seconds for initial resistance.



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Shielding Effectiveness

Many factors determine the shielding effectiveness of a conductive adhesive tape, including type and thickness of the conductive layers, adhesive strength, degree of contact, smoothness of application surface, test frequency, etc. For 3M tape 9793KW series, the typical shielding effectiveness is expected to be in the range of 40 dB to 60 dB, using a standard EMI shielding test methods and through the thickness of the sample tested.

Applications

3M™ Electrically Conductive Double-Sided Tape 9793KW Series is typically used for applications requiring excellent electrical conductivity from the application substrate through the adhesive to a second substrate. Common uses include grounding and EMI shielding in equipment and components.

Application Techniques

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 recommended. Once properly applied, low temperature holding power is generally satisfactory.

The bond strength of 3M™ Electrically Conductive Double-Sided Tape 9793KW Series depends on the amount of adhesive-to-surface contact developed during application, 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 help ensure sufficient wet-out of the 3M tape 9793KW series 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 5-15 psi, 2-5 seconds, 21°C-38°C).
2) Heat may be applied simultaneously with pressure to help improve wetting, final bond strength and electrical conductivity. Suggested temperature range is 38°C-60°C 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 heptane.
4) Adhesion builds with time. Up to 24 to 72 hours may be required to reach final adhesion values.

Storage and Shelf Life

The shelf life of 3M™ Electrically Conductive Single-Sided Tape 9793KW Series is 12 months from the date of manufacture when stored in roll form, in the original packaging materials, and stored at 10°C-25°C (50°F-77°F) and <60% relative humidity.

Once the tape is removed from the original packaging materials, the tape should be converted, shipped and stored in the prescribed temperature and humidity-controlled conditions to ensure stable tape performance. Adhesion, tack, conductivity, and reliability of the tape in an application can be reduced if the tape is not controlled to the prescribed handling and usage conditions.

In addition, in some applications the tape may be converted (die cut, laminated to other materials or release/processing liners) in such a manner that the release liner that the product tape is shipped with is removed and a different release or processing/carrier liner is applied to the adhesive side of the tape. The new release/carrier liner may transfer release agents (silicone, fluoropolymer, etc.) to the tape's adhesive surface and thus reduce the applied tack and/or adhesion strength of the tape in the end user's application to a surface versus when no release/carrier liner changes have occurred. Any proposed release/carrier liners to be used with the tape should be tested with the tape to help ensure that the tape's performance is not negatively impacted for the intended end use application and that shelf life is not negatively impacted. If a poor performing liner is selected for a liner exchange, it can have a significant negative impact on the conductive tape's adhesion/tack/electrical performance and/or significantly reduce shelf life.

3M™ Electrically Conductive Double-Sided Tape 9793KW Series
Certificate of Analysis (COA)

The 3M Certificate of Analysis (COA) for this product is established when the product is manufactured and is deemed commercially available from 3M. The COA contains the 3M specifications, test methods, and test results for the product's performance attributes that the product will be supplied against. Contact your local 3M representative for this product's COA.

This technical data sheet may contain preliminary data and may not match the COA specification limits and/or test methods that may be used for COA purposes.

Regulatory: For regulatory information about this product, contact your 3M representative.

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3M Display & Electronics
3M Center, Building 223-3S-32
St. Paul, MN 55144-1000 U.S.A.

Phone 1-800-3M HELPS
Web 3M.com/Electronics

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