

EL-8001-77

Electrically Conductive Bonding Tape



US Patent #5,082,595

PRODUCT DESCRIPTION

EL-8001-77 is an 'XYZ' axes electrically conductive double-faced pressure-sensitive adhesive tape.

FEATURES

- Double-coated electrically conductive nonwoven carrier
- Electrically conductive acrylic adhesive is continuous through the conductive nonwoven for optimal consistency
- Highly conductive nonwoven carrier extends conductivity in the length and width of the tape
- Provided with a 94 lb. double-faced siliconized polycoated kraft liner on one side and a 94 lb. single-faced siliconized polycoated kraft liner on the other side, ideal for die cutting.

BENEFITS

- Easy to die cut and apply with dimensionally stable polycoated kraft release liners
- Conductive in the X, Y and Z axes
- Tape thickness and flexibility conforms to the topography of 'imperfect surfaces' providing excellent contact.

PRODUCT APPLICATIONS

Suggested for low current electrical interconnections and ground plane assemblies for cellular phones, computers, PDA's, touch screens, disk drives and automotive electronics. Users should assure the product meets the specific needs of their application(s). Adhesives Research can tailor the product to meet the needs of specific applications as requested by customers.

PRODUCT PROFILE AND DIAGRAM

Optional: 94# S/F siliconized polycoated paper liner
 Electrically conductive EC-2 adhesive
 Electrically conductive non-woven
 Electrically conductive EC-2 adhesive
 94# D/F siliconized polycoated paper liner

Product Construction – Typical Values *

S/F Release Liner	6.3 mils [160 microns]
Tape Composite	4.3 mils [109 microns] ± 0.6 mils [± 15.4 microns]
D/F Release Liner	6.3 mils [160 microns]



ADHESIVE PROPERTIES – Typical Values

180° Peel Adhesion (5 min. dwell, PSTC Panel, 12 ipm [5mm/sec]):	> 24 oz./in. [2.7N/cm]	ART# 1005
500 g. Dead Load Shear (500 g. load, ¼ sq. in. [1.6 sq. cm.]):	> 1 hour	ART# 2054

ELECTRICAL PROPERTIES – Typical Values

Volume Resistance: <10Ω (measured with 1" x 1" electrodes)	ART# 3035
Surface Resistance: <15Ω (measured with 1cm x 1cm electrodes with 1cm separation)	ART# 3036

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NOTE: The data provided in this Product Information sheet are typical and should not be used for specification purposes.

Reference Test Methods:

Peel Adhesion: ART# 1005 (Adhesives Research Test), ASTM D3330 / D3330M, PSTC #101

Dead Load Shear: ART# 2054 (Adhesives Research Test), ASTM D3654 / D3654M, PSTC #107

STORAGE AND SHELF LIFE

Two years from date of manufacturing when stored at 70°F [21°C], 50% R.H.

SERVICE TEMPERATURE RANGE

Minimum Application Temperature: 50°F (10°C)

Maximum Operating Temperature: 250°F (121°C)

ROLL SIZE AVAILABILITY

Coated material yields 27" width. Material can be slit to order.

Standard widths from 0.5" to 27.0", Standard slitting tolerance: +/- 1/32".

Standard roll length 50 ft. to 1,000 ft.

(Revision – 01/17/08)

APPLICATION AND STORAGE OF PRESSURE-SENSITIVE ADHESIVE TAPES

Pressure-sensitive adhesive tapes function as a mechanical product; however, the adhesive itself is a chemical composition that can be sensitive to environmental conditions. A purchaser of pressure-sensitive adhesive products should be aware of the shelf life of each product and not purchase more than it can use before the expiration date. Shipping and storage conditions affect shelf life. The optimum storage temperature is 70°F (21°C). Cool, dry storage is recommended.

For best results...

- 1) The surfaces you wish to bond should be clean and free of oil, moisture and dust. If the surface temperature is below 40°F, it may be difficult to achieve a proper bond.
- 2) Do not use a pressure-sensitive adhesive product where it will be exposed to temperatures lower or higher than those designated for each product. Heat can destroy the effectiveness of the bond and extreme cold can cause the adhesive to harden and not adhere properly.
- 3) When the tape is applied, use firm hand or lamination pressure to achieve contact between the adhesive and the surface to which it is applied. Hand rollers or nip rollers may be needed for certain products or applications.

Consult your AR sales representative if you need additional information.

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