

# 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 #3

Dead Load Shear: ART# 2054 (Adhesives Research Test), ASTM D3654 / D3654M, PSTC #7

### 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)

#### 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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Internet: [www.adhesivesresearch.com](http://www.adhesivesresearch.com)

#### Adhesives Research, Inc.

400 Seaks Run Road, P.O. Box 100  
Glen Rock, PA 17327  
Toll-free: 800-445-6240  
Phone: 717-235-7979  
Fax: 717-235-8320

#### Adhesives Research Ireland Ltd.

Raheen Business Park, Limerick, Ireland  
Phone: +353 61 300 300  
Fax: +353 61 300 700

#### Adhesives Research Ltd.

The Old Exchange, Mill Lane  
Great Dunmow, Essex, UK CM6 1BG  
Phone: +44 (0)1371 856300  
Fax: +44 (0)1371 856380

#### Adhesives Research Pte. Ltd.

20 Maxwell Road  
#12-08B Maxwell House  
Singapore 069113  
Phone: +65 6774 9580  
Fax: +65 6777 7261

#### Adhesives Research Shanghai Representative Office

Suite 3908, Plaza 66 Tower 1  
1266 Nanjing West Road  
Shanghai, China 200040  
Phone: +86 21 61038526  
Fax: +86 21 61038527

#### Adhesives Research GmbH

Stefan-George-Ring 29, D-81929  
München, Germany  
Phone: +49 (0) 89 930 86 220  
Fax: +49 (0) 89 930 51 84