

# 3M<sup>TM</sup> Fabric Tape CN-4490

## Double-Coated Conductive

Data Sheet

October 2008

**Description** 3M<sup>TM</sup> Fabric Tape CN-4490 is a conductive, non-woven fabric and unique electrically conductive pressure-sensitive acrylic adhesive.

**Applications** CN-4490 tape is typically used for applications requiring excellent electrical conductivity from the substrate through the adhesive to the conductive backing. Common uses include grounding and EMI shielding equipment, components, shielded rooms, etc.

The unique and thin metallized backing offers the additional benefits of excellent flexibility and conformability, very light weight, and exceptional strength. The conductive backing also helps minimize the possibility of finger lacerations.

**Shielding Effectiveness** Many factors determine the true shielding effectiveness of a shielding tape, including type and thickness of foil adhesive type, intimacy of contact, smoothness of application surface, strength and frequency of the EMI signal, etc.

### Typical Properties

Technical information provided consists of typical product data and should not be used for specification purposes. Unless otherwise noted, all tests are performed at room temperature.

#### Physical

| Property (Test Method)<br>(ASTM D1000 unless noted) | Typical Value<br>US units (metric)               |
|-----------------------------------------------------|--------------------------------------------------|
| Color                                               | Grey                                             |
| Adhesive                                            | Conductive acrylic                               |
| Type of Backing                                     | Copper/Nickel coated conductive non-woven fabric |
| Total Thickness (backing plus adhesive)             | 2.0 mils (0,05 mm)                               |
| Liner Thickness                                     | 5.8 mils (0,14 mm)                               |
| Breaking Strength                                   | 35 lb/in (16 kgf/25 mm)                          |
| Adhesion Strength                                   | 40 oz/in (1000 gf/25 mm)                         |



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### Typical Properties

#### Electrical

| Property (Test Method)<br>(ASTM D1000 unless noted) | Typical Value<br>US units (metric) |
|-----------------------------------------------------|------------------------------------|
| Electrical Resistance Through Adhesive <sup>1</sup> | 0.05 ohms                          |

<sup>1</sup> MIL-STD-202 Method 307 maintained at 5 psi (3,4 N/cm<sup>2</sup>) measured over in<sup>2</sup> surface area. Conductive particles in the adhesive provide the electrical path between the application substrate and the foil backing.

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#### Specifications

- Cu/Ni plated conductive non-woven fabric
- Conductive acrylic adhesive
- Supplied on a removable liner for easy handling and die cutting

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#### Shelf Life & Storage

This product has a 5-year shelf life from date of manufacture when stored in a humidity controlled storage (50°F/10°C to 80°F/27°C and 75% relative humidity).

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#### Availability

For availability, please contact your local distributor. Names and addresses are available from 3M.com/electrical [Where to Buy] or call 1-800-676-8381.

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