

# 3M<sup>TM</sup> Fabric Tape CN-3190

## Nickel on Copper-Plated Polyester Fabric

Data Sheet

September 2008

**Description** 3M<sup>TM</sup> Fabric Tape CN-3190 consists of anti-corrosion polyester rip-stop fabric and unique electrically conductive pressure-sensitive acrylic adhesive.

**Applications** 3M CN-3190 is used in applications typically served by metal foil shielding tapes such as grounding and EMI shielding equipment, components, shielded rooms, etc.

The unique metal-plated fabric backing offers the additional benefits of excellent flexibility and conformability, very light weight, and exceptional strength. The fabric backing also minimizes 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. However, using standard tests and fixtures it is possible to determine a value for the attenuations. For CN-3190 fabric tape, typical shielding effectiveness is in the range of 65dB to 70dB. Before using this product, the user must evaluate it and determine if it is suitable for the intended application.

### 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 ripstop polyester |
| Total Thickness (backing plus adhesive)             | 4.3 mils (0,11 mm)                     |
| Liner Thickness                                     | 5.8 mils (0,14 mm)                     |
| Breaking Strength                                   | 40 lb/in (18 kgf/25 mm)                |
| Adhesion Strength                                   | 31 oz/in (900gf/25 mm)                 |



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#### 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 1 in 2 surface area. Conductive particles in the adhesive provide the electrical path between the application substrate and the foil backing.

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#### Specifications

- Anti-corrosion treated Cu/Ni conductive fabric
- Conductive acrylic adhesive
- Supplied on a removable liner for easy handling and die cutting

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#### Shelf Life & Storage

The tape has a 5-year shelf life from date of manufacture when stored in a clean, dry place at a temperature of 70° F (21° C) and 40-50% 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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