

3MTM Fabric Tape CN-4190

Double-Coated Conductive

Data Sheet

October 2008

Description 3MTM Fabric Tape CN-4190 consists of copper-nickel coated conductive polyester fabric and unique electrically conductive pressure-sensitive acrylic adhesive.

Applications CN-4190 tape is typically used in many applications typically served by metal foil shielding tapes such as grounding and EMI shielding equipment, components, shielded rooms, etc.

The unique fabric backing offers the additional benefits of excellent flexibility and conformability, very light weight, and exceptional strength. The fabric 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. However, using standard tests and fixtures, it is possible to determine a value for the attenuations. For CN-4190 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) (ASTM D1000 unless noted)	Typical Value US units (metric)
Color	Grey
Adhesive	Conductive acrylic
Type of Backing	Copper/Nickel coated conductive fabric
Total Thickness (backing plus adhesive)	4.3 mils (0,11 mm)
Liner Thickness	5.8 mils (0,14 mm)
Breaking Strength	35 lb/in (16 kgf/25 mm)
Adhesion Strength	40 oz/in (1000gf/25 mm)



3M™ Fabric Tape CN-4190

Double-Coated Conductive

Typical Properties

Electrical

Property (Test Method) (ASTM D1000 unless noted)	Typical Value US units (metric)
Electrical Resistance Through Adhesive ¹	0.05 ohms

¹ MIL-STD-202 Method 307 maintained at 5 psi (3,4 N/cm²) measured over in² surface area. Conductive particles in the adhesive provide the electrical path between the application substrate and the foil backing.

Specifications

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

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).

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.

Important Notice

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

Warranty; Limited Remedy; Limited Liability

This product will be free from defects in material and manufacture at the time of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**

3M is a trademark of 3M Company.



Electrical Markets Division

6801 River Place Blvd.
Austin, TX 78726-9000
800 676 8381
FAX 800 828 9329
www.3M.com/electrical/oem

Please recycle.
© 3M 2008 All rights reserved.
78-8127-7046-5_A