3M™ Fabric Tape CN-4190

Double-Coated Conductive

Data Sheet **October 2008**

Description

3M™ 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)

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 in^2 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.

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