

3M 1190 Tape

Metallized Fabric Tape with Conductive Adhesive Data Sheet

Product Description

3M™ 1190 Tape consists of a strong, flexible copper-plated polyester ripstop fabric backing and a unique electrically conductive pressure-sensitive acrylic adhesive.

- Copper-plated polyester ripstop woven fabric backing (Flectron® from Monsanto)
- Conductive acrylic adhesive
- Supplied on a removable liner for easy handling and diecutting

Like all 3M shielding tapes, 3M 1190 is available in standard and custom widths and lengths. Standard length is 18 yards.

- Widths from 1/4" to 23"
- Longer lengths up to several times normal length, dependent upon width. Check with Customer Service.

(Flectron is a registered trademark of Monsanto Co.)

Applications

3M 1190 Tape can be used in many applications typically served by metal foil shielding tapes such as grounding and EMI shielding in equipment, components, shielded rooms, etc. The unique metallized 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 metallization, 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 attenuation. For 3M 1190 Tape, typical shielding effectiveness (far field) is in the range of 50dB to 70dB (30 MHz to 1 GHz).

Properties

Typical Values

Backing thickness ¹	4.5 mil (0.113 mm)
Total thickness (backing plus adhesive) ¹	6.0 mil/0.153 mm
Breaking strength ²	70 lb./in (123 N/10mm)
Adhesion to steel ²	30 oz/in (3.2 N/10mm)
Electrical resistance through adhesive ³	0.005 ohm

* Footnote: 1. Because the Flectron backing is a woven fabric, there is some variability in the thickness and weight.

2. Test method ASTM D 1000

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

3M is a trademark of 3M.

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