



ELECTRICAL INSULATION TAPES



3M 1181 Copper EMI Shielding Tape

3M 1181 Copper EMI Shielding Tape is manufactured from a 1-ounce dead-soft copper foil backing and a unique, electrically conductive pressure-sensitive acrylic adhesive. This construction allows 1181 EMI Tape to exhibit outstanding electrical conductivity and highly effective EMI shielding performance. Each roll (or cut component) is supplied with a removable liner to hassle-free application. The copper foil backing can be soldered and resists oxidation and discoloration.

3M 1181 Copper EMI Shielding Tape is typically used for grounding and EMI shielding applications where effective transfer of current through a tape's adhesive layer to the foil backing is of high importance. Common uses include grounding and EMI shielding of equipment, components and rooms.

Shielding Effectiveness

Many factors determine the true shielding effectiveness of a shielding tape, including the type and thickness of foil, the type of adhesive, intimacy of contact, smoothness of applications surfaces, strength and frequency of the EMI signal and more. However, using standard tests and fixtures, it is possible to determine a value for the attenuation.

3M 1181 Copper EMI Shielding Tape has a typical shielding effectiveness (far field) value in the range of 60dB to 80dB (30 MHz to 1 GHz)

Properties

Backing Thickness	0.04mm (1.4 Mil)
Total Thickness	0.066mm (2.6 Mil)
Breaking Strength ¹	44 N / 10mm (25 lb./in)
Adhesion to Steel ¹	3.8 N / 10mm (35 oz./in)
Electrical Resistance through Adhesive ²	0.005 ohm
Flame Retardancy ³	Pass

1 Test Method ASTM D 1000

2 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 surface and the foil backing.

3 UL Recognised for Flame Retardancy per UL 510, Product Category OANZ2, File E17385

Availability

Associated Gaskets slits 3M 1181 Copper EMI Shielding Tape in-house and can provide this quality tape in whatever width you require (standard widths are also listed below). This tape can also be supplied in custom-sized, die-cut components to assist with efficient application with minimal-waste for manufacturing and serial repair operations.

Standard roll widths: 6mm, 9mm, 12mm, 15mm, 18mm, 21mm, 24mm

Standard roll length: 16.46mtrs.

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Important

This information should not be treated as a substitute for specific technical advice. AG does not offer such advice and cannot warrant the performance or suitability of products for particular applications.