

3M™ Copper Foil Tape 1181

Copper Foil with Conductive Adhesive

Data Sheet

April 2010

Description	3M™ Copper Foil Tape 1181 consists of a 1-ounce rolled copper foil backing and an electrically conductive, pressure-sensitive acrylic adhesive. This tape is supplied on a removable liner for easy handling and die-cutting. It has excellent solder ability.
Agency Approvals & Self Certifications	Meets flame retardant requirements of UL510, Product Category OANZ2, File E17385 RoHS 2002/95/EC  RoHS Compliant 2002/95/EC" means that the product or part ("Product") does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2002/618/EC, unless the substance is in an application that is exempt under RoHS. This information represents 3M's knowledge and belief, which may be based in whole or in part on information provided by third party suppliers to 3M.
Applications	3M Copper Foil Tape 1181 is typically used as an EMI/RFI shielding tape for applications in the electronics industry such as static charge draining, seaming shielded rooms, cable wrapping and surface contact to non-solderable materials.
Shielding Effectiveness	Many factors determine true shielding effectiveness of a shielding tape, including type and thickness of foil, adhesive type, intimacy of contact, smoothness of application surface, frequency of the EMI signal, etc. Typical shielding effectiveness for 1181 Tape is >85dB, 1MHz to 2 GHz, ASTM D-4935 test method..
Typical Properties	Not for specifications. Values are typical, not to be considered minimum or maximum. Properties measured at room temperature 73°F (~23°C) unless otherwise stated.

Physical

Property (Test Method)	Typical Value US units (metric)
Color	Copper
Adhesive	Acrylic Conductive
Type of Backing	Copper
Backing Thickness	1.4 mil (0.04mm)
Total Thickness (ASTM D1000)	2.6 mils (0.066mm)
Electrical Resistance¹	0.005 Ω/□
Flame Retardancy²	Pass
Breaking Strength (ASTM D3759)	25 lbs/in (44N/10mm)
Elongation -% at break	5%
Adhesion Strength (ASTM D3330)	35 oz/in (3.8N/10mm)
Temperature Range	-40°C to 130°C
Shielding Effectiveness³	>85 dB, 1MHz to 2 GHz

1. Mil-STD-202 Method 303 maintained at 5 psi (3.4N/cm²) measured over 1 in² surface area. Conductive particles in the adhesive provide the electrical path between the application substrate and the foil backing.
2. UL Recognized for flame retardancy per UL 510, Product Category OANZ2, File E17385
3. ASTM D-4935 Test Method

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Shelf Life & Storage	This product has a 5-year shelf life from date of manufacture when stored in a humidity controlled storage (10°C/50°F to 27°C/80°F and <75% relative humidity).
Availability	Please contact your local distributor; available from 3M.com/oem [Where to Buy] or call 1-800-676-8381.

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