3M™ EMI Tin-Plated Copper Foil Shielding Tape 1183 with Electrically Conductive Acrylic Adhesive

Data Sheet **June 2021**

Product Description

3M™ EMI Tin-Plated Copper Foil Shielding Tape 1183 is a 2.66-mil (0.068 mm) thick tape composed of a 1.4-mil (0.036 mm) tin-plated flat copper foil backing coated on one side with a non-corrosive, electrically conductive acrylic pressure-sensitive adhesive supplied on a removeable liner.

- Commonly used for EMI/RFI shielding applications in the electronics industry and for static charge draining, seaming shielded rooms, cable wrapping and surface contact to non-solderable materials
- Can be die-cut, is solderable and offers a multitude of uses in electrical design and test laboratories for prototyping, design and troubleshooting
- Adhesive requires no moisture, solvents, heat or other manner of preparation to affect application
- Flame Retardant per UL-510A Standard

Properties

Physical Properties	*Value Imperial (Metric)*
Color - Visual	Matte Tin
Adhesive	Electrically Conductive Acrylic
Backing	Tin Pated Copper Foil - Flat
Flame Retardant[2]	Pass
Mechanical Properties	***Value Imperial (Metric)***
Backing Thickness - Nominal	1.4 mil (0.036 mm)
Total Thickness[1]	2.66 +/- 0.14 mils (0.068 +/- 0.004 mm)
Adhesion to Steel[1] - Minimum	25 oz/in (2.7 N/cm)
Breaking Strength[1] - Minimum	18 lb/in (32 N/cm)

Electrical Properties	*Value Imperial (Metric)*
Electrical Resistance[4] - Maximum	0.005 Ω/in^2
Shielding Effectiveness[3] - Average 300 kHz – 2.5 GHz	68 dB

Notes:

1. ASTM D1000 Test Method - properties measured at room temperature 73°F (23°C) unless otherwise stated
2. UL Recognized Flame Retardant per UL510A Standard, Category OARC2, File No. E17385
3. ASTM D4935 Test Method - properties measured at room temperature 73°F (23°C) unless otherwise stated
4. Test Method: MIL-STD-202 Method 307 maintained at 5 psi (3.4 N/cm^2) measured over a 1 in^2 surface area
   a. Silver coated glass beads embedded in acrylic adhesive provide the electrical path between application substrate and foil backing

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, frequency of the EMI signal, etc.

Agency Approvals & Self Certifications

- UL Component Recognized: UL510A Standard, Category OARC2, File No. E17385
- For Regulatory information including RoHS, REACH, please visit www.3M.com/regs

Shelf Life & Storage

This product has a 5-year shelf life (from date of manufacture) when stored in humidity-controlled storage (50°F/10°C to 80°F/27°C and <75% relative humidity).

Availability

3M™ EMI Tin-Plated Copper Foil Shielding Tape 1183 available from 3M authorized distributors / converters

Also available from 3M.com/oem or call 1.800.245.3573.

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