

3M™ EMI Copper Foil Shielding Tape 1182 with Double Coated Electrically Conductive Acrylic Adhesive

Data Sheet June 2021

Product Description

3M[™] EMI Copper Foil Shielding Tape 1182 is a 3.5-mil (0.089 mm) thick tape composed of a 1.4-mil (0.036 mm) flat copper foil backing coated on both sides with a non-corrosive, electrically conductive acrylic pressure-sensitive adhesive supplied on a removeable liner.

- · Commonly used for bonding two surfaces together, both physically and electrically
- Provides low z-axis resistance connection between substrates
- Can be die-cut 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)	Electrical Properties	Value Imperial (Metric)
Color - Visual	Copper	Electrical Resistance ⁴ - Maximum	$0.010 \Omega/\text{in}^2$
Adhesive	Double Coated Electrically Conductive Acrylic	Shielding Effectiveness ³ - Average 300 kHz – 2.5 GHz	54 dB
Backing	Copper Foil - Flat		
Flame Retardant ²	Pass		
Mechanical Properties	Value Imperial (Metric)		
Backing Thickness - Nominal	1.4 mil (0.036 mm)		
Total Thickness ¹	3.5 +/- 0.5 mils (0.089 +/- 0.013 mm)		
Adhesion to Steel ¹ - Minimum	25 oz/in (2.7 N/cm)		
Breaking Strength ¹ - Minimum	22 lb/in (39 N/cm)		

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
- I. Test Method: MIL-STD-202 Method 307 maintained at 5 psi (3.4 N/cm²) measured over a 1 in² 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 <u>www.3M.com/regs</u>
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 Copper Foil Shielding Tape 1182 available from 3M authorized distributors / converters
	Also available from <u>3M.com/oem</u> or call 1.800.245.3573.

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