3M

1182 Tape
Copper Foil Conductive Adhesive on Both Sides
Data Sheet

Product Description

3M™ 1182 Tape consists of a 1-ounce deadsoft copper foil backing that is coated on both sides with a unique electrically conductive pressure-sensitive acrylic adhesive.

- Deadsoft 1-ounce copper foil backing
- Conductive acrylic adhesive on both sides
- Supplied with removable liner on both sides for easy handling and diecutting

Like all 3M shielding tapes, 3M 1182 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.

Applications

3M 1182 is typically used to bond two surfaces together, both electrically and physically. An example would be adhering a conductive gasket to a conductive surface as part of the EMI shielding solution for an electronic enclosure.

Conductivity

Since 3M 1182 double-sided copper tape would typically be used as an electrical path between two surfaces, its most important feature is its conductivity. Highly conductive particles in the acrylic adhesive provide a multitude of electrical paths between the application substrate and the surface of the copper foil on each side. The resistance of the conductive path through the adhesive (measured over a 1-in² area) typically measures only a few milliohms.

Properties

<table>
<thead>
<tr>
<th>Properties</th>
<th>Typical Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backing thickness</td>
<td>1.4 mil (0.04mm)</td>
</tr>
<tr>
<td>Total thickness (backing plus adhesive on both sides)</td>
<td>3.5 mil (.088mm)</td>
</tr>
<tr>
<td>Breaking strength</td>
<td>25 lb./in (44 N/10mm)</td>
</tr>
<tr>
<td>Adhesion to steel</td>
<td>35 oz/in (3.8 N/10mm)</td>
</tr>
<tr>
<td>Electrical resistance through adhesive</td>
<td>0.010 ohm</td>
</tr>
<tr>
<td>Flame retardancy</td>
<td>Pass</td>
</tr>
</tbody>
</table>

* Footnote: 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 substrate and the foil backing.
3. UL-recognized for flame retardancy per UL 510, Product Category 0ANZ2, File E17385.
Important Notice

All statements, technical information and recommendations related to the Seller’s products are based on information believed to be reliable, but the accuracy or completeness thereof is not guaranteed. Before utilizing the product, the user should determine the suitability of the product for its intended use. The user assumes all risks and liability whatsoever in connection with such use.

Any statements or recommendations of the Seller which are not contained in the Seller’s current publications shall have no force or effect unless contained in an agreement signed by an authorized officer of the Seller. The statements contained herein are made in lieu of all warranties, expressed or implied, including but not limited to the implied warranties of merchantability and fitness for a particular purpose which warranties are hereby expressly disclaimed.

SELLER SHALL NOT BE LIABLE TO THE USER OR ANY OTHER PERSON UNDER ANY LEGAL THEORY, INCLUDING BUT NOT LIMITED TO NEGLIGENCE OR STRICT LIABILITY, FOR ANY INJURY OR FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES SUSTAINED OR INCURRED BY REASON OF THE USE OF ANY OF THE SELLER’S PRODUCTS THAT WERE DEFECTIVE.

3M
Electrical Products Division
6801 River Place Blvd.
Austin, TX 78726-9000
800 676 8381
http://www.3m.com/elpd

© 3M 1998
78-8124-4703-1