



1170 Tape

Aluminum Foil with Conductive Adhesive Data Sheet

Product Description

3M™ 1170 Tape consists of a 1-ounce deadsoft aluminum foil backing and a unique electrically conductive pressure-sensitive acrylic adhesive.

- Deadsoft 1-ounce aluminum foil backing
- Conductive acrylic adhesive
- Supplied on a removable liner for easy handling and diecutting

Like all 3M shielding tapes, 3M 1170 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 1170 Tape is typically used for applications requiring excellent electrical conductivity from the application substrate through the adhesive to the foil backing. Common uses include grounding and EMI shielding in equipment, components, shielded rooms, etc.

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, strength and frequency of the EMI signal, etc. However, using standard tests and fixtures, it is possible to determine a value for the attenuation.

For 3M 1170 Tape, typical shielding effectiveness (far field) is in the range of 60dB to 75dB (30 MHz to 1 GHz).

Properties

Typical Values

Backing thickness	2.0 mil (0,05mm)
Total thickness (backing plus adhesive)	3.2 mil (.081mm)
Breaking strength ¹	20 lb./in (35 N/10mm)
Adhesion to steel ¹	35 oz/in (3,8 N/10mm)
Electrical resistance through adhesive ²	0.010 ohm
Flame retardancy ³	Pass

* 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.

3M is a trademark of 3M.

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.



Electrical Products Division

6801 River Place Blvd.
Austin, TX 78726-9000
800 676 8381
<http://www.3m.com/elpd>

© 3M 1998
78-8124-4701-5

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

3M:

[1093](#) [1170-EK TAPE 3/4"](#) [1170-2X18YDS](#) [1170-3/4X18YDS](#) [1170-1/4"x18yd](#) [1170-5/8"x18yd](#)