# 3M™ Aluminum Foil Tape 1170

## Aluminum Foil with Conductive Adhesive

**Data Sheet** **April 2010**

**Description**

3M™ Aluminum Foil Tape 1170 consists of a 1-ounce rolled aluminum 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 Aluminum Foil Tape 1170 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 1170 Tape is >85dB, 1MHz to 2 GHz, ASTMD-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** | Silver Metallic |
| **Adhesive** | Acrylic Conductive |
| **Type of Backing** | Aluminum |
| **Backing Thickness** | 2.0 mil (0.05mm) |
| **Total Thickness (ASTM D1000)** | 3.2 mils (0.081mm) |
| **Electrical Resistance**[1] | 0.010 Ω/□ |
| **Flame Retardancy**[2] | Pass |
| **Breaking Strength (ASTM D3759)** | 20 lbs/in (35N/10mm) |
| **Elongation -% at break** | 5% |
| **Adhesion Strength (ASTM D3330)** | 35 oz/in (3.8N/10mm) |
| **Temperature Range** | -40ºC to 130ºC |
| **Shielding Effectiveness**[3] | >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. ASTMD-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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Electrical Markets Division
6801 River Place Blvd.
Austin, TX 78726-9000
800 676 8381
FAX: 800 828 9329
www.3M.com/emc

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