M-Bond 610

Strain Gage Adhesives for Transducer Applications

**OTHER ACCESSORIES USED IN AN M-BOND 610 INSTALLATION:**
- CSM Degreaser or GC-6 Isopropyl Alcohol
- Silicon-Carbide Paper
- M-Prep Conditioner A
- M-Prep Neutralizer 5A
- GSP-1 Gauze Sponges
- CSP-1 Cotton Applicators
- MJG-2 Mylar® Tape
- TFE-1 Teflon® Film
- HSC Spring Clamp
- GT-14 Pressure Pads and Backup Plates

**DESCRIPTION**
Two-component, solvent-thinned, epoxy-phenolic adhesive for high-precision transducers; solids content 22%. Low viscosity, capable of gluelines <0.0002 in [0.005mm]. Extremely thin, hard, void-free gluelines minimize creep, hysteresis, and linearity problems. Life limited by oxidation and sublimation effects at elevated temperatures.

**CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Operating Temperature Range:</th>
<th>Cure Requirements:</th>
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<tbody>
<tr>
<td>–452° to +450°F [–269°C to +230°C]</td>
<td><strong>Recommended Cure:</strong> <em>1 hour at +350°F [+175°C]</em> \n<strong>Recommended Postcure:</strong> <em>2 hours at +400° to +450°F [+205° to +230°C]</em> \n*Altered for aluminum-alloy transducers. See Strain Gage Installation Procedures for Transducers.</td>
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</tbody>
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| Shelf Life: | 9 months at +75°F [+24°C]; 15 months at +40°F [+5°C] |

| Pot Life: |
| 6 weeks at +75°F [+24°C]; 12 weeks at +40°F [+5°C] |

| Clamping Pressure: |
| 45 to 60 psi [3 to 4 bar] |
| 50 psi [3.4 bar] optimum |

**PACKAGING**

**Kit:**
- 4 bottles [11g ea] Curing Agent
- 4 bottles [14g ea] Resin
- 4 brush caps for applying adhesive
- 4 disposable mixing funnels

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M-Bond 43-B for Transducers
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Strain Gage Adhesives for Transducer Applications

M-Bond 43-B

**OTHER ACCESSORIES USED IN AN M-BOND 43-B INSTALLATION:**
- CSM Degreaser or GC-6 Isopropyl Alcohol
- Silicon-Carbide Paper
- M-Prep Conditioner A
- M-Prep Neutralizer 5A
- GSP-1 Gauze Sponges
- CSP-1 Cotton Applicators
- MJG-2 Mylar® Tape
- TFE-1 Teflon® Film
- HSC Spring Clamp
- GT-14 Pressure Pads and Backup Plates

**DESCRIPTION**
Single-component, solvent-thinned, epoxy adhesive commonly used in transducer applications; solids content 25%. May be used both as an adhesive and as a protective coating. Capable of forming very thin, hard, void-free gluelines similar to M-Bond 610. Highly resistant to moisture and chemical attack.

**CHARACTERISTICS**

**Operating Temperature Range:**
-452° to +250°F
[-269° to +120°C]

**Shelf Life:**
- 9 months at +75°F [+24°C]
- 18 months at +40°F [+5°C]

**Pot Life:**
- 9 months at +75°F [+24°C]
- 18 months at +40°F [+5°C]

**Clamping Pressure:**
- 45 to 60 psi [3 to 4 bar]
- 50 psi [3.4 bar] optimum

**Cure Requirements:**
- **Recommended Cure:** 2 hours at +375°F [+190°C]
- **Recommended Postcure:** 2 hours at +400°F [+205°C]

**PACKAGING**
**Kit:**
4 brush-cap bottles (30ml ea) premixed adhesive
M-Bond 450

Strain Gage Adhesives for Transducer Applications

OTHER ACCESSORIES USED IN AN M-BOND 450 INSTALLATION:

- CSM Degreaser or GC-6 Isopropyl Alcohol
- Silicon-Carbide Paper
- M-Prep Conditioner A
- M-Prep Neutralizer 5A
- GSP-1 Gauze Sponges
- CSP-1 Cotton Applicators
- MJG-2 Mylar® Tape
- TFE-1 Teflon® Film
- HSC Spring Clamp
- GT-14 Pressure Pads and Backup Plates

DESCRIPTION

High-performance, two-component, solvent-thinned epoxy system specially formulated for high accuracy, elevated-temperature transducer applications.

CHARACTERISTICS

Operating Temperature Range:

**Short Term:** -452° to +750°F (-269° to +400°C)
**Long Term:** -452° to +500°F (-269° to +260°C)

Shelf Life:
6 months at +75°F (+24°C)

Pot Life:
6 weeks at +75°F (+24°C)

Clamping Pressure:
60 to 100 psi (4 to 6 bar)

Cure Requirements:

**Step 1:** Air dry at +75°F (+24°C) 10 to 30 min
**B-Stage:** +225°F (+105°C) for 30 min
**Cure:** +350°F (+175°C) for 1 hour

Recommended Postcure: 1 hour at 50°F (30°C) above max operating temperature

PACKAGING

Kit:
- 4 bottles (12.5g ea) Curing Agent
- 4 bottles (12.5g ea) Resin
- 4 brush caps for applying adhesive
- 4 disposable mixing funnels

References:
- M-M Instruction Bulletin B-130, Strain Gage Installations with M-Bond 43-B, 600, and 610 Adhesive Systems.
- M-M Strain Gage Accessories databook.

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Revision: 21-Jan-10