**PRODUCT INFORMATION**

**HIGH TECHNOLOGY MATERIALS**

**MEREKO 1670 SERIES FLEXIBLE EPOXY ELASTOMERS**

**PRODUCT DESCRIPTION**

*Mereco 1670* series is a new class of fast curing, highly damped flexible epoxy elastomers specifically designed for demanding customer adhesive or potting applications where a wide choice of viscosity ranges is desirable. *Mereco 1670* series are two-component, easy 2:1 volumetric mix ratio systems that provide excellent protection of electronic components.

**TYPICAL PROPERTIES**

*Uncured Resin*

- **Composition**: Epoxy resin
- **Color**: Translucent/Opaque
- **Viscosity, Brookfield @ 25 °C**: Any requested

<table>
<thead>
<tr>
<th>Product</th>
<th>5 RPM</th>
<th>50 RPM</th>
<th>Thixotropic Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1670-00 Base</td>
<td>120</td>
<td>120</td>
<td>1.0</td>
</tr>
<tr>
<td>1670-00 Act.</td>
<td>1,100</td>
<td>1,100</td>
<td>1.0</td>
</tr>
<tr>
<td>1670-20 Base</td>
<td>520</td>
<td>290</td>
<td>1.8</td>
</tr>
<tr>
<td>1670-20 Act.</td>
<td>3,600</td>
<td>3,500</td>
<td>1.0</td>
</tr>
<tr>
<td>1670-40 Base</td>
<td>6,640</td>
<td>2,380</td>
<td>4.8</td>
</tr>
<tr>
<td>1670-40 Act.</td>
<td>9,600</td>
<td>6,700</td>
<td>1.4</td>
</tr>
<tr>
<td>1670-60 Base</td>
<td>84,000</td>
<td>9,150</td>
<td>9.2</td>
</tr>
<tr>
<td>1670-60 Act.</td>
<td>23,800</td>
<td>11,060</td>
<td>2.2</td>
</tr>
<tr>
<td>1670-80 Base</td>
<td>898,000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1670-80 Act.</td>
<td>68,000</td>
<td>23,200</td>
<td>2.93</td>
</tr>
<tr>
<td>1670-100 Base</td>
<td>2,740,000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1670-100 Act.</td>
<td>132,000</td>
<td>26,160</td>
<td>3.72</td>
</tr>
</tbody>
</table>

- **Specific Gravity**: 1.08
- **Toxicity**: Low (See MSDS)
- **Flash Point, Activator, °C 78 (171 °F)
- **Flash Point, Base, °C >95 (200 °F)
- **Working Life, 20 grams**: 8 minutes
- **Shelf Life**: 6 months
- **Mix Ratio, pbw**: 100:45
- **By volume**: 2:1

**Cured Resin Properties**

- **Mechanical**
  - Tensile Strength, psi: 1,000
  - Lap shear Strength, psi: 1,000
  - Aluminum to Aluminum: 60
  - Hardness (Shore A): 80

- **Electrical**
  - Volume Resistivity: est.1.0 X 10^14 ohms-cm
  - Surface Resistivity: est.1.0 X 10^12 ohms/sq
  - Dielectric Constant, 1 MHz: TBD
  - Dielectric Strength: TBD

- **Thermal**
  - Operating Temperature °C: -60 to 150
  - Coefficient of Thermal Expansion: 69 ppm/ºC Below Tg
  - 213 ppm/ºC Above Tg
  - Glass Transition Temperature, °C: 19

**PRODUCT BENEFITS**

- Easy, 2:1 mix ratio by weight or volume
- Quick cure at room temperature
- Available in dual syringes
- Can be designed with any color
- Good coefficient of thermal expansion
- Protects components from internal stresses
- Prevents inductance drop after potting
- Low modulus, E₀ est @ 5,000 psi

**Recommended Cure Schedule, 20 Gram Mix**

<table>
<thead>
<tr>
<th>Minutes</th>
<th>Temp. °C</th>
<th>Temp. °F</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>25</td>
<td>77</td>
</tr>
</tbody>
</table>

**Preparation of Mixture**

For product purchased in two-component kits, mix the entire contents of *Mereco 1670* base and activator in their original shipping containers to a uniform consistency and color, each time, before dispensing. Take care to incorporate all material adhering to the bottom, sides and corners of the containers. Mechanical mixing of the components for two to three minutes is satisfactory. Measure only the approximate amount that can be applied in 5-10 minutes. Dual syringes are an appropriate packaging design to use, providing freedom from hand mixing and dispensing.

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**FORM 1105 REV. 0**

MEREKO TECHNOLOGIES GROUP * 1505 MAIN STREET * WEST WARWICK, R.I. 02893 * (401) 822-9300 * Fax (401) 822-9311
**Air Removal**

Air entrapment during mixing may be removed in vacuum (5 mm of mercury). The holding container should be no more than one-third full. Allow the mixture to foam and then subside. The short working time of the mixed 1670 requires use of the product immediately after the foaming subsides.

**Application**

The material can be poured in the required thickness after which the parts are set aside to cure using the recommended cure schedules listed at the top of this page.

**Storage and Handling**

*Mereco 1670* is a blend of epoxy resins and latent curing agents. Keep stored in the original container at temperatures from 0°C to 25°C. The product is uniform when packaged. Consult material safety data sheet before handling. Keep containers closed when not in use. Effective ventilation necessary. Goggles, gloves and protective clothing should be worn during handling or exposure. Refer to the product MSDS for more information.

**Availability and Order Information**

*Mereco 1670* is available as a two-component kit consisting of separate containers of epoxy resin and curing agent. *Mereco 1670* is available in pint, quart, 3 pint, 3 quart and 3 gallon kits.

**Packaging Sizes & Types**

Dual Syringes  50cc, 200cc, 400cc,  
Pints, Quarts, Gallons, 5 Gallons, 55 Gallon Drums  

*Mereco* can also package *Mereco 1670* in dual-pouch mixing packages, and in dual cartridges with a hand-held gun for hand dispensing. In both methods, the two components are premeasured, kept separate until needed, and do not need freezing.

When ordering, specify the name, number, letter designation, color, quantity, container size and packaging form. The order should be placed with the Mereco order entry department at 1-800-556-7164 or by mail to the address listed on this bulletin. The minimum order size is $100.00. Evaluation kits are available for $40.00. The $40.00 fee will be credited against the first order for the product.