



PRODUCT INFORMATION

HIGH TECHNOLOGY MATERIALS

MERECO 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

Should not be used for specification purposes

Uncured Resin

Composition Epoxy resin
Color Translucent/Opaque
Any requested

Viscosity, Brookfield @ 25 °C

Product	5 RPM	50 RPM	Thixotropic Index
1670-00 Base	120	120	1.0
1670-00 Act.	1,100	1,100	1.0
1670-20 Base	520	290	1.8
1670-20 Act.	3,600	3,500	1.0
1670-40 Base	6,640	2,380	4.8
1670-40 Act.	9,600	6,700	1.4
1670-60 Base	84,000	9,150	9.2
1670-60 Act.	23,800	11,06	2.2
1670-80 Base	898,000	-	-
1670-80 Act.	68,000	23,200	2.93
1670-100 Base	2,740,000	-	-
1670-100 Act.	132,000	26,160	3.72

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
Aluminum to Aluminum 1,000
Elongation at Break, % 60
Hardness (Shore A) 80 +/-5

Electrical

Volume Resistivity est. 1.0 X 10¹⁴ ohms-cm
Surface Resistivity est. 1.0 X 10¹² Ohms/sq
Dielectric Constant, 1 MHz TBD
Dielectric Strength TBD

Thermal

Operating Temperature °C -60 to 150
Coefficient of Thermal Expansion 69 ppm/°C Below Tg
213 ppm/°C 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, E_o est @ 5,000 psi

Recommended Cure Schedule, 20 Gram Mix

Minutes	Temp. °C	Temp. °F
10	25	77

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.

Technical information and recommendations made by Mereco Division and Metachem Resins Corporation concerning products and uses or applications thereof, are based on reliable laboratory tests and are believed to be accurate. No warranty, however, is expressed or implied, nor is any warranty expressed or implied as to results to be obtained from use of said materials, whether used singly or in combination with other products. No statements made are to be construed as constituting a license under any existing patent.

FORM 1105 REV. 0

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.