



# PRODUCT INFORMATION

## HIGH TECHNOLOGY MATERIALS

### MEREKO XL-389T FLEXIBLE EPOXY ELASTOMER

#### PRODUCT DESCRIPTION

**Mereco XL-389T** is a Thixotropic, highly damped flexible epoxy elastomer specifically designed for demanding customer applications where a non-slumping, non-sagging flexible epoxy is desirable. **Mereco XL-389T** is a two-component, easy 1-1 mix ratio system that provides excellent protection of electronic components, ranging from transducers, sensors, load cells, delicate magnetic coils and bobbins to power supply applications where no inductance drop after potting is desired. **Mereco XL-389T** has excellent resistance to degradation in diesel fuel and other hydrocarbon environments.

#### TYPICAL PROPERTIES

Should not be used for specification purposes

	<u>Uncured Resin</u>
Composition	Epoxy Resin
Color	Translucent / Opaque
	Any requested
Mixed Viscosity	Thixotropic
Specific Gravity	1.1
Toxicity	Low (See MSDS)
Flash Point, Activator, °C	88 (190°F)
Flash Point, Base, °C	204 (400°F)
Working Life, 100 grams	3 hours
Shelf Life	6 months
Mix Ratio, pbw	1-1
pbv	1-1

#### Cured Resin Properties

#### Mechanical

Tensile Strength, psi	250
Tear Strength, ppi	150
Impact Resistance Ft-lbs/in/-Notch	2.06
Water Absorption % 24 hours	1.5
Lap shear Strength, psi	
Aluminum to Aluminum	400-900
Elongation at Break, %	120
Hardness (Short A)	65 +/-5
Glass Transition Temp. T <sub>g</sub>	-34°C (-30°F)
Bayshore Rebound, %	9

#### Electrical

Volume Resistivity	1.0 X 10 <sup>14</sup> ohms-cm
Surface Resistivity	1.0 X 10 <sup>12</sup> ohms/sq
Dielectric Constant, 1 MHz	4.01
Dielectric Strength	350 volts/mil

#### Thermal

Operating Temperature °C	-60 to 150
Coefficient of Thermal Expansion	225 ppm

#### PRODUCT BENEFITS

- ⇒ Easy, 1-1 mix ratio
- ⇒ Quick cure at common processing temperatures
- ⇒ Available in frozen and unfrozen syringes
- ⇒ Can be designed with any color
- ⇒ Low-cost replacement for silicone RT
- ⇒ Excellent damping properties
- ⇒ Good coefficient of thermal expansion
- ⇒ Protects components from internal stresses
- ⇒ Prevents inductance drop after potting
- ⇒ Low modulus, E<sub>0</sub> est @ 3,500 psi

#### TYPICAL DAMPING PROPERTIES OF ELASTOMERIC MATERIALS

Product	Durometer	Bayshore Rebound, %
Butyl Rubber	75 Shore A	8
Mereco XL-389T	65 Shore A	9
Silicone Rubber	60 Shore A	12
Neoprene Rubber	60 Shore A	40
EPDM Rubber	60 Shore A	48

#### CURE SCHEDULE

Hours	°C
4	65
48	25

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FORM 1105 REV. 0

### Preparation of Mixture

For product purchased in two-component kits, mix the entire contents of **Mereco XL-389T** 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 ten to fifteen minutes is satisfactory. Measure only the approximate amount that can be applied in four hours.

### 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. Maintain the low pressure for several more minutes, at which point most of the large bubbles have broken.

### Application

The material can be applied in the required thickness after which the parts are set aside to cure using the recommended cure schedules.

### STORAGE AND HANDLING

**Mereco XL-389T** 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 XL-389T** is available as a two-component kit consisting of separate equal weight containers of epoxy resin and curing agent. **Mereco XL-389T** is available in pint, quart, two quart, two gallon and ten gallon kits. A two gallon kit contains 8 pounds of base and 8 pounds of activator.

### Packaging Sizes and Types

Syringes	3cc, 5cc, 10cc, 30cc
Jars	2-oz., 4-oz., 8-oz., 16-oz., 32-oz.
Pints, Quarts, Gallons, 5 Gallons, 55 Gallon Drums	

Mereco can also package **Mereco XL-389T** in dual cartridges to be applied with a hand-held dispensing gun. The two components are premeasured, kept separate until needed, and do not need freezing.

For those customers who do not want to mix **Mereco XL-389T**, premixed and frozen syringes (usually EFD style) and smaller plastic cups are available. The premixed syringes or cups are degassed and frozen (-40°C) at the factory. These packages require frozen storage at -40°C or colder until ready to use and prompt action at the receiving platform to place these packages in the freezer at -40°C or colder to prevent the contents from thawing prematurely.

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.