

MERECO CLN-672

ULTRA HIGH TEMPERATURE RESISTANT AND THERMALLY CONDUCTIVE ENCAPSULATING, POTTING, AND ADHESIVE POLYMER SYSTEM

MERECO CLN-672 is a high temperature resistant epoxy with good heat dissipating properties. Simple mix ratio and good flow properties make it easy to use and apply in encapsulation, potting and adhesive applications. CLN-672 is particularly effective in bonding

Ultra High Temperature Resistance

and Stability

Withstands 315°C (600°F) for intermittent

use, 260°C (500°F) for prolonged exposure,

and 204°C (400°F) for continuous use

Thermally Conductive Protects electronic components

against excessive heat buildup

Transmits heat to temperature

sensors

Simple Mix Ratio One to one (1:1) proportioning of Base

and Activator simplifies preparation

and dispensing operations

High Voltage Resistance Protects imbedded electronic com-

ponents against arcing and surface mounted components against corona

Low Shrinkage Coefficient Minimizes thermal shock to com-

ponents and loss of adhesion

MERECO CLN-672 is a superior material for electrical components such as insulators, power amplifiers, high voltage bushings, thermostats, thermal switches, thermal sensors and capacitors.

MERECO CLN-672 has superior adhesion to metals, ceramics, glass and bondable plastics including Ryton, surface treated Teflon, Rulon and polypropylene. **MERECO CLN-672** will bond tenaciously to difficult to bond surfaces such as polysulfone, Kapton, and polymide substrates.

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.

DIRECTIONS FOR USE

- 1. Stir contents of containers of **MERECO CLN-672** parts A and B prior to mixing. Viscosity may be reduced by warming both Base and Activator to 140°F with some shortening of pot life.
- 2. Blend, by weight, equal amounts of **MERECO CLN-672** Base and Activator and stir thoroughly.
- 3. Working life of catalyzed **MERECO CLN-672** is 2-4 hours at room temperature (25°C).
- 4. Cure Schedule

Preset $200^{\circ} - 220^{\circ}$ F for 2 - 3 hours. Post Cure $300^{\circ} - 400^{\circ}$ F for 16 - 24 hours.

For optimum high temperature properties, a second post curing operation is recommended at 500° - 550°F for 24 hours.

TYPICAL PROPERTIES

UNCURED LIQUIDS	<u>BASE</u>	<u>ACTIVATOR</u>
Color	Off-White	Off-White
Form	Paste	Syrup
Viscosity, cP at 25°C	250,000-300,000	4,500-6,000
Viscosity (mixed), cP at 25°C	100,000	
Specific Gravity, 25°C/25°C	1.8	1.8

CURED PROPERTIES

Color Reddish to black depending on curing schedule

Hardness 92 Shore D

Operating Temperature Range:

 $\begin{array}{ll} \text{Intermittent} & 315^{\circ}\text{C } (600^{\circ}\text{F}) \\ \text{Extended Period} & 260^{\circ}\text{C } (500^{\circ}\text{F}) \\ \text{Continuous} & 205^{\circ}\text{C } (400^{\circ}\text{F}) \end{array}$

Glass Transition Temperature, °C 149

Coefficient of Thermal Expansion, um/m°C

Below Tg 46 Above Tg 123 Thermal Conductivity W/m°K 1.09

CLEAN-UP

METATERGE 1405 is recommended to replace hazardous solvents for general clean-up. METATERGE 1405, a unique water soluble resin detergent, dissolves uncured resin systems and renders them water compatible. Soiled equipment, tools or bench areas can then be simply cleaned with a wet sponge or shop rag. Refer to data bulletin for METATERGE 1405.