

## TIM-830M-1

### FLEXIBLE, ELECTRICALLY CONDUCTIVE EPOXY ADHESIVE

**TIM-830M-1** is two part, flexible, silver filled, and high electrical conductivity epoxy adhesive. Both components are silver filled permitting a simple 1:1 mix ratio by weight. It has smooth creamy consistency with long work life at room temperature. It can cure in 24 to 48 hours at room temperature or heat cure to obtain optimal properties.

#### TYPICAL HANDLING PROPERTIES:

Consistency	Smooth paste
Mix ratio by weight (A: B)	1:1
Work Life (25 grams), hour	1
Shelf life @ 25°C	1 year
Recommended Cure	2 hrs @ 100°C
Alternate Cure	24-48 hrs @ 25°C

#### TYPICAL CURED PROPERTIES:

(Tested at 25°C unless otherwise indicated)

Color	Silver
Specific Gravity	3.2
Hardness, Shore D	72
Lap Shear Strength to Aluminum, psi	1700
Thermal Conductivity, W/m° K	2.7
Volume Resistivity, ohm-cm	0.002
After 100 hrs @ 150°C	0.0009
After 1000 hrs @ 150°C	0.0009
Glass Transition Temperature (Tg), °C	45
Coefficient of Thermal Expansion, ppm/°C	
Below Tg	72
Above Tg	200
Ionic Impurities*:	
Chloride (Cl <sup>-</sup> )	< 100 ppm
Sodium (Na <sup>+</sup> )	< 20 ppm
Potassium (K <sup>+</sup> )	< 20 ppm

#### INSTRUCTIONS FOR USE:

1. Mix each component thoroughly before use.
2. Weigh each 100 grams of PART-A to 100 grams of Hardener PART-B.
3. Mix until uniform. Scrape the sides and bottom of container repeatedly during mixing.
4. Apply to clean bonding surfaces and cure as recommended to achieve the desired properties. Typical cured properties were determined using recommended cure schedule. Some difference in properties may occur with the alternate or other cure schedules.

**Thaw premixed frozen adhesive at room temperature for 5-10 minutes. Dispense adhesive and cure at recommended schedules.**

#### AVAILABILITY:

**2 parts Kit** - Packaged in 4 OZ, 8 OZ and 1 lb. container.  
**Premixed and frozen** - Packaged in 3cc, 5cc and 10cc disposable syringes.

#### FOR INDUSTRIAL USE ONLY:

Practices of good housekeeping, safety and cleanliness should be followed before, during and after use.

#### WARNING!

Adequate ventilation of work place and ovens is essential. These materials may cause injury to the skin following prolonged or repeated contact and dermatitis in susceptible individuals. In case of skin contact, wash thoroughly with soap and water. For eyes, flush immediately with plenty of water for at least 10 minutes and seek medical attention. Refer to Material Safety Data Sheet (**MSDS**) for additional health and safety information.