

TIM-8207M-1
FLAME- RETARDANT
THERMALLY CONDUCTIVE POTTING COMPOUND

TIM-8207M-1 is a two parts, ambient temperature-cure, epoxy potting and encapsulating system. This semi-rigid system has excellent shock & vibration resistance and good thermal conductivity. **It meets UL-94 V-0 (1/4" thickness) requirements.** This low viscosity with a convenient mix ratio of 1:1 by volume is specifically designed for submersible pumps, and also can be used for low to medium voltage electrical potting applications such as ballast, starters, electronic timers etc.

TYPICAL HANDLING PROPERTIES:

Resin	PART-A
Hardener	PART-B
Mix ratio by weight, (Part-A/Part-B)	100/100
Mix ratio by volume, (Part-A/Part-B)	100/100
Viscosity at 25°C, cp	
PART-A	25,000–35,000
PART-B	6000–10,000
Mixed	15,000–22,000
Pot life at 25°C (100 gram), hours	1-2
Recommended Cure	48 hrs @ 25°C
Alternate Cure	2-3 hrs @ 65°C

TYPICAL CURED PROPERTIES:

(Tested @ 25°C unless otherwise indicated)

Color	Black
Specific Gravity	1.55
Hardness, Shore D	84
Linear Shrinkage (%)	0.1
Glass Transition Temperature, °C	65
Coefficient of Linear Thermal Expansion, 10 ⁻⁶ /°C	
Below Tg	63
Above Tg	152
Water Absorption (168 hr at RT), %	0.31
Thermal Conductivity, W/m°K	0.60
Service temperature range, °C	-55 to 110
Dielectric Strength (3mm thick), volts/mil	415
Dielectric Constant (1 kHz) @ 25°C	4.3
Dissipation Factor (1 kHz) @ 25°C	0.03
Volume Resistivity @ 25°C, ohm-cm	3x10 ¹⁴

Flammability (1/4" thickness) - Meets UL-94 V-0

INSTRUCTIONS FOR USE:

The individual components containing fillers should be stirred or agitated without introducing excessive air before use to ensure that all fillers are properly dispersed. To obtain the best cured properties; accurate proportioning and thorough mixing are essential.

1. Mix contents thoroughly each time before removing material.
2. To each 100 grams of PART-A to 100 grams of PART-B or 1 to 1 by volume, and mix it well preferably using a mechanical mixer.
3. Vacuum degasses for about five minutes to remove any dissolved or entrapped air.
4. Proceed with the casting or potting application and cure as recommended.

FOR INDUSTRIAL USE ONLY:

These materials are intended for industrial use only, and the practices of good housekeeping, safety and cleanliness should be followed before, during and after use.

WARNING!

Although the system contains low volatility materials, care should be taken in handling. 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. Refer to Material Safety Data Sheet for additional health and safety information.

SHELF LIFE:

The shelf life of these materials is one year when stored in unopened containers at an average temperature of 25°C.

DISCLAIMER: All data given here is offered as a guide to the use of these materials and not as a guarantee of their performance. The user should evaluate their suitability for own purposes. Properties are typical and should not be used in preparing specifications. Statements are not to be construed as recommendations to infringe any patent.