

# TIM-827TC

**Two Parts, High Strength Thermally Conductive Epoxy Adhesive**

## DESCRIPTIONS

**TIM-827TC** is a thermally conductive, high strength, structural epoxy adhesive. This tough adhesive has an excellent combination of shear and peel strength. It has also excellent impact and vibration resistance and low temperature flexibility. This high performance epoxy adhesive exhibits very good physical, thermal, and electrical insulation properties. It is recommended for bonding aluminum, steel, copper, brass, wood, porcelain, and engineering thermoplastics.

**Applications:** It is recommended for bonding aluminum, steel, copper, brass, wood, porcelain, and engineering thermoplastics.

## INSTRUCTION FOR USE

### DUAL CARTRIDGE USE:

1. Attached cartridge to manual or pneumatic applicator gun. Remove end cap and attach desired static mixing nozzle. Pull trigger on applicator gun and discard initial 1-2 turns in static mixer to assure proper mix.
2. Apply onto surface or substrate as desired. Purge as needed. Once done and if material remains in the cartridge, pull back on applicator and remove cartridge.
3. Remove and discard used mixing nozzle and re-attach end cap.

**Note:** Refer to Safety Data Sheet (**SDS**) for additional health and safety information.

## AVAILABILITY

2 Parts Kits: 1 Quart, 1 gallon & 5 gallon pail, Available in dual cartridges with static mixer

Typical Property	Test Method	Value
Type		Two Parts, Part A(Resin), Part B(Hardener)
<b>Special Feature</b>		<b>Tough, High Strength, Crack Resistance</b>
Color	Visual	Grey
Mix Ratio by Volume (By weight)		2:1 (100:46)
Viscosity (Mixed) Pa.S	Brookfield	100-120
Specific Gravity	ASTM D792	1.6
Pot Life @ 25°C. (100 grams) Minutes		60-80
Cure Schedule		24 hrs@25°C or 30 minutes@90°C
Operating Temperature Range.°C		-55°C to 160°C
Shelf Life, 25C		12 months
<b>Cured Properties (70°C, 2 hours)</b>		
Hardness, Shore D	ASTM D2240	86
Glass Transition Temperature.°C	DSC	62°C
Lap Shear Strength to Aluminum. PSI	ASTM D1002	> 3500
Coefficient Of Thermal Expansion (CTE), 10 <sup>-6</sup> /°C.	ASTM E831	Below Tg 55, Above Tg 125
Thermal Conductivity (W/m-K)	ASTM D5470	<b>0.9</b>
Breakdown Voltage (KV/mm)	ASTM D149	17
Dissipation Factor (1KHz)	ASTM D150	0.08
Volume Resistivity (Ohm-cm)	ASTM D257	10 <sup>11</sup>

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