

TIM-816TC

Thermally Conductive High Strength Epoxy Adhesive

DESCRIPTIONS

TIM-885 is a highly versatile **“Non-Hazmat”** type epoxy adhesive formulated for semiconductor industry. An easy to-spread thixotropic paste, it offers high heat transfer, **low shrinkage and a coefficient of thermal expansion comparable to that of copper and aluminum.** This high performance epoxy adhesive exhibits very good physical, thermal, and electrical insulation properties.

Applications: This adhesive is designed for protecting IC's in TAB, as well as glob-top encapsulant for COB placement. Other applications include fabricating heat sinks, bonding semiconductors and transistors to heat sinks and general purpose bonding of electronic components.

INSTRUCTION FOR USE

1. Weigh each 100 grams of Resin (Part-A) to 7 grams of Hardener (Part-B) TH-22.
2. Mix until uniform. Scrape the sides and bottom of container repeatedly during mixing.
3. Apply to clean bonding surfaces and cure as recommended to achieve the desired properties.
4. Typical cured properties were determined using recommended cure schedule. Some difference in properties may occur with the alternate or other cure schedules.

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

AVAILABILITY

2 Parts Kits: 1 Quart, 1 gallon & 5 gallon pail,

Typical Property	Test Method	Value
Type		Two Part A(Resin), Part B (TH-22 Hardener)
Special Feature		Low Shrinkage, CTE compatible to AL & CU
Color	Visual	Black
Mix Ratio by by weight		100:7
Viscosity (Mixed) Pa.S	Brookfield	>250
Specific Gravity	ASTM D792	2.1
Pot Life @ 25°C. (100 grams) Minutes		40-60
Cure Schedule		24 hrs@25°C or 30 minutes@100°C
Operating Temperature Range.°C		-55°C to 150°C
Shelf Life, 25C		12 months
Cured Properties (70°C, 2 hours)		
Hardness, Shore D	ASTM D2240	91
Glass Transition Temperature.°C	DSC	>70°C
Lap Shear Strength to Aluminum. PSI	ASTM D1002	> 3000
Coefficient Of Thermal Expansion (CTE), 10 ⁻⁶ /°C.	ASTM E831	Below Tg 26, Above Tg >100
Thermal Conductivity (W/m-K)	ASTM D5470	1.6
Breakdown Voltage (KV/mm)	ASTM D149	17
Dissipation Factor (1KHz)	ASTM D150	0.01
Volume Resistivity (Ohm-cm)	ASTM D257	10 ¹⁵

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