832HT

High Temperature Epoxy, Encapsulating & Potting Compound

832HT is a general purpose, rigid, black, 2-part high temperature epoxy that provides extreme environmental, mechanical and physical protection for printed circuit boards and electronic assemblies.

It is useful when extreme physical strength and chemical resistance are required. It also provides excellent electrical insulation and protects components from static discharge, vibration, abrasion, thermal shock, environmental humidity, salt water, fungus, and many harsh chemicals.



Features & Benefits

- 1.6A:1B volume mix ratio
- Extremely high compressive and tensile strength
- Excellent adhesion to a wide variety of substrates including metals, composites, glass, ceramics, and many plastics
- Excellent electrical insulating characteristics
- Very broad service temperature range of -40 to 225 °C
- Extreme resistance to water and humidity
- Solvent-free

Available Packaging

Cat. No.	Packaging	Net Vol.	Net Wt.
832HT-375ML	2 Bottle kit	340 mL	376 g
832HT-3L	3 Can kit	2.3 L	2.54 kg

Contact Information

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Cured Properties

Resistivity		1.0 x 10^{13}	Ω·cm
Breakdown Voltage		>50 000	V
Dielectric Strength		470	V/mil
Dissipation Factor @ 1 MHz		0.01	
Dielectric Constant @ 1 MHz		2.8	
Hardness		87	D
Tensile Strength		48	N/mm^2
Compressive Strength		132	N/mm^2
Lap Shear (stainless steel)		15	N/mm^2
(aluminum)		7.4	N/mm^2
Glass Transition Temperature	(T_g)	89	˚C
CTE Prior T_g		86	ppm/˚C
CTE After T_g		152	ppm/˚C
Thermal Conductivity @ 25 ˚C		0.3	W/(m·K)
Service Temperature Range		-40 – 225	˚C
Intermittent Temperature		250	˚C

Usage Parameters

Working Time	1 h
Mix Ratio by Volume	1.6:1
Mix Ratio by Weight	2:1

Uncured Properties

Mixed Density		1.1	g/mL
Density	(A)	1.2	g/mL
	(B)	1.0	g/mL
Viscosity @ 25 ˚C	(A)	46	Pa·s
	(B)	6.6	Pa·s

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Application Instructions

Read the product SDS and Application Guide for more detailed instructions before using this product (downloadable at www.mgchemicals.com).

Recommended Preparation

Clean the substrate with Isopropyl Alcohol, MG #824, so the surface is free of oils, dust, and other residues.

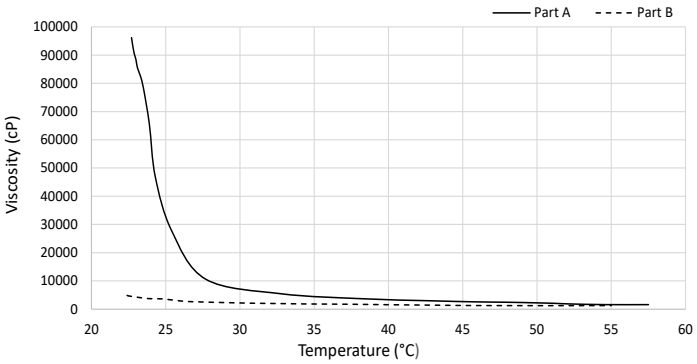
Mixing

1. Scrape settled material free from the bottom and sides of the part A container; stir the contents until homogenous. Use a paint shaker if available.
2. Measure 1.6 parts by volume of the part A and pour into the mixing container. Ensure all contents are transferred by scraping the container.
3. Measure 1 part by volume of the part B and pour into the mixing container. Ensure all contents are transferred by scraping the container.
4. Thoroughly and gently mix parts A and B together. Avoid introducing air bubbles.
5. To de-air, let sit for 15 minutes or put in a vacuum chamber at 25 inHg for 2 minutes.
6. If bubbles are present at the top, break them gently with the mixing paddle.
7. Pour the mixture into a container holding the components to be protected.
8. Close the part A and B containers tightly between uses to prevent skinning.

If crystallization/solidification occurs, reconstitute the product by warming to between 55 and 65 °C until it becomes fully re-liquified. Let the material cool to room temperature before mixing, to prevent flash cure.

Mixing >500 g at a time decreases working time and can lead to a flash cure. Limit the size of hand-mixed batches. For large production volumes, contact MG Chemicals Technical Support for assistance.

Viscosity vs. Temperature



Cure Instructions

Allow to cure at room temperature for 24 hours, or cure in an oven at one of these time/temperature options:

Temperature	65 °C	80 °C	100 °C
Time	1 h	30 min	15 min

Storage and Handling

Store between 16 and 27 ˚C in a dry area, away from sunlight (see SDS). This product has a 5 year shelf life.

Disclaimer

This information is believed to be accurate. It is intended for professional end-users who have the skills required to evaluate and use the data properly. M.G. Chemicals Ltd. does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.