832FXT

Black Flexible Epoxy, Encapsulating & Potting Compound

832FXT is a 2-part flexible epoxy potting compound with a viscosity that prevents the liquid from wicking into tight spaces. This low modulus potting compound is ideal for encapsulating circuits with delicate surface mount components or for applications with aggressive thermal cycling. The cured resin is elastomeric yet tough and still protects circuit components from impacts, shocks and vibrations.

This product has nearly identical properties as the 832FX but with a slightly thicker viscosity that prevents excess wicking and running. The adjusted viscosity also allows for convenient cartridge packaging which is very user friendly and prevents under-curing.

Features & Benefits

Low modulus, flexible

1:1 mix ratio

Mixed viscosity will not wick into tight spaces

Excellent water resistance

High electrical insulation

Cure Instructions

Allow to cure at room temperature for 48 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	10 min

Storage and Handling

Store between 16 and 27 ˚C in a dry area, away from sunlight (see SDS).

Available Packaging

Part #	Packaging	Net Vol.	Net Wt.
832FXT-25ML	Dual syringe	25 mL	26 g
832FXT-50ML	Dual cartridge	46 mL	47.9 g
832FXT-400ML	Dual cartridge	380 mL	395 g
832FXT-7.4L	2 Can kit	7.2 L	7.5 kg
832FXT-40L	2 Pail kit	40 L	41.6 kg

Dispensing Accessories

Part #	Dispensing Gun	Static Mixer
832FXT-25ML	N/A	8MT-50
832FXT-50ML	8DG-50-1-1	8MT-50
832FXT-400ML	8DG-400-1-1	8MT-450

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Liquid Properties

Chemistry	Epoxy	—
Density	1.0 g/mL (Mixed) 1.1 g/mL (A) 1.0 g/mL (B)	ASTM D1475
Viscosity @ 25 ˚C	1 920 cP (Mixed) 1 680 cP (A) 530 cP (B)	Brookfield Engineering labs Inc. IPCTM-65- Method 2.4.24.4
Mix Ratio	1:1 (Volume) 1.15:1 (Weight)	—
Working Time [a]	170 min	—
Peak Exotherm [b]	50 ˚C	—
Shrinkage	2.4%	Calculated
Shelf Life	5 y	—

[a] Based on 100 g sample. Varies by volume and geometry.
[b] Based on a 250 g sample in a fixed container geometry.

Cured Properties

Flame Retardancy	No	—
Color	Black	—
Density	1.1 g/mL	Hydrostatic Weighing
Service Temperature Range	-80–110 ˚C	—
Intermittent Temperature	140 ˚C	—
Thermal Conductivity @ 25 ˚C Specfic Heat Capacity @ 25 ˚C Thermal Diffusivity @ 25 ˚C	0.2 W/(m·K) 1.9 J/(g·K) 0.09 mm^2/s	ASTM E1461
Glass Transition Temperature (T_g)	20 ˚C	ASTM E1545
Coefficient of Thermal Expansion (CTE)	124 ppm/˚C (Prior T_g) 295 ppm/˚C (After T_g)	ASTM E831
Hardness	80 A	ASTM D2240
Tensile Strength	2.3 N/mm^2	ASTM D638

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Cured Properties Continued

Lap Shear	3.6 N/mm^2 (Stainless Steel) 3.9 (Aluminum) 3.6 N/mm^2 (ABS) 2.6 N/mm^2 (PC)	ASTM D1002
Resistivity	1.5 x 10^{13} Ω·cm	ASTM D257
Breakdown Voltage @ 3.175 mm Dielectric Strength @ 3.175 mm	43 400 V 350 V/mil	ASTM D149
Chemical Absorption Weight Gain, 30 days @ 25 °C	30 % (IPA) 9 % (Sulphuric Acid 3%) 17 % (Acetic Acid) 0.4 % (10% NaOH) 0.2 % (10% NaCl) 0.4 % (Water) 0.1 % (Transmission Oil) 0.1 % (Transformer Oil)	—

Application Instructions

Read the product SDS and Application Guide for more detailed instructions before using this product.

Recommended Preparation

Clean the substrate with 824 99.9% Isopropyl Alcohol, 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 homognous. Use a paint shaker if available.
2. Measure 1 part 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. Click here for a video tutorial on vacuum de-airing.
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.

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.