8329TCM

Heatsink Adhesive

8329TCM is a 2-part thermally conductive epoxy adhesive. It is a dark grey, smooth, thixotropic paste that cures to form a hard, durable polymer that is thermally conductive, yet electrically insulating.

This adheisve is most often used as a heatsink glue, attaching heatsinks to CPUs, LEDs, or other heat generating electronics components.

This compound has been formulated for high thermal conductivity. It is highly viscous and must be mixed by hand prior to application. For a lower viscosity, use 8329TFM. For a shorter working time, use 8349TFM. For a longer working time, use 8329TCS.



Features & Benefits

High thermal conductivity

1:1 mix ratio

Provides strong electrical insulation

Bonds well to a wide variety of substances

Strong resistance to humidity, salt water, mild bases, and aliphatic hydrocarbons

Cure Instructions

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

Temperature	65 °C	80 °C	100 °C
Time	1 h	45 min	20 min

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Available Packaging

Part #	Packaging	Net Vol.	Net Wt.
8329TCM-6ML	2 Syringe Kit	6 mL	14.8 g
8329TCM-50ML	2 Jar Kit	50 mL	121 g

Storage and Handling

Store between 16 and 27 ˚C in a dry area, away from sunlight (see SDS). To maximize shelf life, recap product firmly when not in use

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Liquid Properties

Density	2.4 g/mL (Mixed) 2.5 g/mL (A) 2.4 g/mL (B)	ASTM D1475
Viscosity @ 25 ˚C	780 000 cP (A) 810 000 cP (B)	Brookfield Engineering labs Inc. IPCTM-65- Method 2.4.24.4
Mix Ratio	1:1 (Volume) 0.93:1 (Weight)	—
Working Time[a]	45 min	—
Shelf Life	3 y	—

[a] Based on a 20 mL sample in a fixed container geometry.

Cured Properties

Color	Dark grey	—
Density	1.1 g/mL	Hydrostatic Weighing
Service Temperature Range	-40–150 ˚C	—
Resistivity	9 x 10^{12} Ω·cm	ASTM D257
Hardness	77 D	ASTM D2240
Tensile Strength	10 N/mm^2	ASTM D638
Compressive Strength	34 N/mm^2	ASTM D695
Lap Shear	6.4 N/mm^2 (Stainless steel) 6.1 N/mm^2 (Aluminum)	ASTM D1002
Glass Transition Temperature (T_g)	46 ˚C	ASTM E1545
Coefficient of Thermal Expansion (CTE)	71 ppm/˚C (Prior T_g) 131 ppm/˚C (After T_g)	ASTM E831
Thermal Conductivity @ 25 ˚C Specfic Heat Capacity @ 25 ˚C Thermal Diffusivity @ 25 ˚C	1.3 W/(m·K) 0.9 J/(g·K) 0.6 mm^2/s	ASTM E1461
Weight Loss @ 155 °C (600 hrs)	3.8 %	–

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Application Instructions

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

Recommended Preparation

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

Syringe or Cartridge

1. Twist and remove the cap from the syringe or cartridge. Do not discard cap.
2. Measure 1 part by volume of A.
3. Measure 1 part by volume of B.
4. Dispense material on a mixing surface or container and thoroughly mix parts A and B together.
5. To stop flow, pull back on the plunger.
6. To stop the flow, pull back on the plunger.
7. Clean nozzle to prevent contamination and material buildup.
8. Re-place the cap on the syringe.

Can or Jar

1. Stir each part individually to re-incorporate material that may have separated.
2. Measure 0.93 part by weight of A.
3. Measure 1 part by weight of B.
4. Thoroughly mix parts A and B together.
5. Apply adhesive to the application area.

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.