8329TFS

Thermal Conductive Adhesive
Long Working Time, Flowable

8329TFS is a 2-part, heat-cure, thermally conductive epoxy adhesive with a 4-hour working time. It is a dark grey, smooth, thixotropic paste that cures to form a hard, durable polymer that is thermally conductive, yet electrically insulating.

This thermally conductive adhesive is used to glue heatsinks to LED's, CPU's, and other heat-generating components.

This product cures slowly. For a faster cure version, use 8329TFF or 8349TFM.



Features & Benefits

High thermal conductivity

Long working time

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

The product will not cure at room temperature. Cure the adhesive in an oven at one of these time/temperature options:

Temperature	65 °C	80 °C	100 °C
Time	3 h	80 min	30 min

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.

Available Packaging

Part #	Packaging	Net Vol.	Net Wt.
8329TFS-25ML	Dual Syringe	25 mL	52.2 g
8329TFS-50ML	Dual Cartridge	45 mL	94 g

Dispensing Accessories

Consult the table below for accessory selection. See the Dispensing Accessories Application Guide for usage instructions. 8MT-50-FT should only be used with a pneumatic dispenser.

Part #	Dispensing Gun	Static Mixer
8329TFS-25ML	N/A	N/A
8329TFS-50ML	8DG-50-1-1	8MT-50, 8MT-50-FT

8329TFS

Liquid Properties

Density	1.6 g/mL (Mixed) 2.2 g/mL (A) 2.0 g/mL (B)	ASTM D1475
Viscosity @ 25 ˚C	130 000 cP (A) 700 000 cP (B)	Brookfield Engineering labs Inc. IPCTM-65- Method 2.4.24.4
Mix Ratio	1:1 (Volume) 1:0.96 (Weight)	—
Working Time [a]	4 h	—
Set Time [a]	5 h 45 min	—
Peak Exotherm [b]	24 °C	ASTM D2471
Shelf Life	3 y	—

[a] Ambient temperature of 22 °C
[b] Based on a 20 mL sample in a fixed container geometry

Cured Properties

Color	Dark grey	—
Density	2.1 g/mL	Hydrostatic Weighing
Service Temperature Range	-40–150 ˚C	—
Resistivity	1.0 x 10^{12} Ω·cm	ASTM D257
Hardness	68 D	ASTM D2240
Tensile Strength	4.2 N/mm^2	ASTM D638
Compressive Strength	42 N/mm^2	ASTM D695
Lap Shear	5.0 N/mm^2 (Stainless steel) 6.3 N/mm^2 (Aluminum)	ASTM D1002
Glass Transition Temperature (T_g)	9 ˚C	ASTM E1545
Coefficient of Thermal Expansion (CTE)	47 ppm/˚C (Prior T_g) 164 ppm/˚C (After T_g)	ASTM E831
Thermal Conductivity @ 25 ˚C Specfic Heat Capacity @ 25 ˚C Thermal Diffusivity @ 25 ˚C	1.2 W/(m·K) 1.0 J/(g·K) 0.6 mm^2/s	ASTM E1461
Weight Loss @ 155 °C (600 hrs)	1.3 %	–

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. Dispense a small amount to ensure even flow of both parts. A manual or pneumatic dispensing gun is required for a 50 mL cartridge.
3. (Optional) Attach a static mixer.

   a. Dispense and discard 3 to 5 mL of the product to ensure a homogeneous mixture.

   b. After use, dispose of static mixer.
4. Without a static mixer, dispense material on a mixing surface or container, and thoroughly mix parts A and B together.
5. To stop the flow, pull back on the plunger.
6. Clean nozzle to prevent contamination and material buildup.
7. Re-place the cap on the cartridge or syringe or cartridge.

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.