8329TCS

High Thermal Conductivity Adhesive

8329TCS 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 thermal adhesive is used to glue heat sinks to LEDs, CPUs and other heat-generating components.

8329TCS has been designed for maximum thermal conductivity. It is highly viscous and must be mixed by hand prior to application. For a lower viscosity, use 8329TFS. For a shorter working time, use 8329TCM.

Features & Benefits

- High thermal conductivity
- 1:1 mix ratio
- Provides strong electrical insulation
- High tensile strength
- Bonds well to a wide variety of substances
- Strong resistance to humidity, salt water, mild bases, and aliphatic hydrocarbons

Cured Properties

Resistivity	2 x 10^{13}	Ω·cm
Hardness	62	D
Tensile Strength	11	N/mm^2
Compressive Strength	43	N/mm^2
Lap Shear (stainless steel)	4.7	N/mm^2
(aluminum)	4.4	N/mm^2
Glass Transition Temperature (T_g)	8.8	˚C
CTE Prior T_g	36	ppm/˚C
CTE After T_g	173	ppm/˚C
Thermal Conductivity @ 25 ˚C	1.4	W/(m·K)
Service Temperature Range	-40–150	˚C

Available Packaging

Cat. No.	Packaging	Net Vol.	Net Wt.
8329TCS-6ML	2 Syringe Kit	6 mL	13.8 g
8329TCS-50ML	2 Jar Kit	50 mL	116 g

Usage Parameters

Working Time	4 h
Mix Ratio by Volume	1:1
Mix Ratio by Weight	0.95:1

Contact Information

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Uncured Properties

Mixed Density		2.27	g/mL
Viscosity @ 25 ˚C	(A)	970	Pa·s
	(B)	2 000	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.

Syringe

1. Twist and remove the cap from the syringe. 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 the flow, pull back on the plunger.
6. Clean nozzle to prevent contamination and material buildup.
7. Replace the cap on the syringe.

Can or Jar

1. Stir each part individually to re-incorporate material that may have separated during storage.
2. Measure 0.95 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.

Cure Instructions

This product cures only at an elevated temperature, as per one of these time/temperature options:

Temperature	65 °C	80 °C	100 °C
Time	2 hours	1 hour	20 minutes

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.

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.