8331S

Silver Conductive Epoxy Adhesive

8331S is an electrically conductive, silver-filled 2-part epoxy adhesive with a long working time. It is smooth, non-sagging, thixotropic, and bonds well to a wide variety of substrates.

It can be used as a solder replacement for bonding heat-sensitive electronic components, or for making conductive connections where soldering is not an option, such as when bonding to glass, soft metals, or plastics.

8331S has been formulated to be economical. For a higher fill version that maximizes conductivity, use 8330S. For a shorter working time and room temperature cure, use 8331.



Features and Benefits

- Creates permanent electrical connections
- Extended working time
- Low cure temperature of 65 °C
- Room temperature storage
- Long shelf life
- NASA low outgassing approved

Available Packaging

Cat. No.	Packaging	Net Vol.	Net Wt.
8331S-15G	2 Syringe kit	6 mL	14.7 g
8331S-50ML	2 Jar kit	50 mL	123 g
8331S-200ML	2 Can kit	200 mL	491 g

Contact Information

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Cured Properties

Resistivity	6.0 x 10^{-3}	Ω·cm
Hardness	60	D
Tensile Strength	14	N/mm^2
Compressive Strength	65	N/mm^2
Lap Shear (stainless steel)	4.5	N/mm^2
(aluminum)	7.1	N/mm^2
Water Absorption	0.1	%
Outgassing @ 125 ˚C for 24 h	0.4	%
Glass Transition Temperature (T_g)	34	˚C
CTE Prior T_g	78	ppm/˚C
CTE After T_g	158	ppm/˚C
Thermal Conductivity @ 25 ˚C	1.3	W/(m·K)
Service Temperature Range	-40–150	˚C

Usage Parameters

Working Time	4 h
Mix Ratio by Volume	1:1
Mix Ratio by Weight	1.2:1

Uncured Properties

Mixed Density		2.42	g/mL
Viscosity @ 25 ˚C	(A)	950	Pa·s
	(B)	6 200	Pa·s

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Application Instructions

Read the product SDS 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

1. Stir each part individually to re-incorporate material that may have separated.
2. Measure 1.2 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

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

- 2 h @ 65 ˚C
- 1 h @ 80 ˚C
- 30 min @ 100 ˚C

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.

Shelf Life

8331S-15G	1.5 y
8331S-50ML	3 y
8331S-200ML	3 y

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.