9410

1-Part Epoxy, Electrically Conductive Adhesive, High T_g

9410 is a 1-part electrically conductive epoxy adhesive that can be stored at room temperature. It bonds well to a wide variety of substrates, and offers strong chemical resistance.

9410 is designed for semi-conductor flip chip packaging as well as die attach for small chips, LEDs and diodes. It provides excellent EMI/RFI shielding and is very effective at filling in seams between metal plates. It can be readily used in manual, pneumatic and robotic dispensing processes.



Features and Benefits

- Creates strong permanent electrical connections
- No mixing required
- Low cure temperature of 90 °C
- Room temperature storage
- Suitable for automated dispensing

Available Packaging

Cat. No.	Packaging	Net Vol.	Net Wt.
9410-3ML	Syringe	3 mL	7.00 g
9410-30ML	Cartridge	30 mL	70.0 g
9410-180ML	Cartridge	180 mL	378 g

Cured Properties

Resistivity	1.8 x 10^{-3}	Ω·cm
Hardness	70	D
Compressive Strength	26	N/mm^2
Lap Shear (stainless steel)	2.6	N/mm^2
(aluminum)	2.8	N/mm^2
Glass Transition Temperature (T_g)	96	˚C
CTE Prior T_g	42	ppm/˚C
CTE After T_g	150	ppm/˚C
Thermal Conductivity @ 25 ˚C	1.1	W/(m·K)
Service Temperature Range	-65–145	˚C

Uncured Properties

Viscosity @ 25 ˚C	Thixotropic paste
Density	2.3 g/mL

Contact Information

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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 or Cartridge

1. Twist and remove the cap from the cartridge or syringe. Do not discard cap.
2. If nozzle is blocked, clean any hardened material on both the inside and outside using a needle and paper towel.
3. Dispense the adhesive evenly to both surfaces.
   a. For 30 mL size, insert the cartridge in the 8DG-30-1 dispensing gun (see Dispensing Accessories Application Guide).
4. To stop the flow, pull back on the plunger.
5. Clean nozzle to prevent contamination and material buildup.
6. Replace the cap on the cartridge or syringe.

Dispensing Accessories

Consult the table below for accessory selection. See the Dispensing Accessories Application Guide for usage instructions.

Cat. No.	Dispensing Gun	Static Mixer
9410-3ML	N/A	N/A
9410-30ML	8DG-30-1	N/A

Cure Instructions

The working time is not applicable. Higher cure temperatures may affect resistivity. The product will not cure at room temperature. Cure the adhesive in an oven at one of these time/temperature options:

- 3 h @ 80 ˚C
- 1 h @ 90 ˚C
- 30 min @ 100 ˚C
- 7 min @ 150 ˚C

The cure conditions above are recommendations and may vary based on customers' requirements, application, and equipment.

Storage and Handling

Store in a dry area, away from sunlight (see SDS). To maximize shelf life, recap product firmly when not in use and keep frozen. If exposed to freezing temperatures, keep product at room temperature for 2 hours prior to use.

Shelf Life @ 22 ˚C	4 months
Shelf Life @ -10 ˚C	12 months

The shelf life applies to unopened product.

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.