

# 9400



## 1-part Epoxy, Electrically Conductive Adhesive, Low T<sub>g</sub>

9400 is an electrically conductive, silver-filled, 1-part epoxy adhesive with a low cure temperature. It is smooth, thixotropic, non-sagging, and bonds well to a wide variety of substances. It has an unlimited working life at room temperature.

This product can create electrically conductive bonds where soldering is not an option, such as when bonding to heat-sensitive components, glass, soft metals, or conductive polymers. It also works well in semi-conductor packaging, micro-electronic attachment and lid-sealing, and as a die attach for small chips, LEDs and diodes. It does not require mixing and can be readily used in manual, pneumatic and robotic dispensing processes.

9400 has been formulated to have a low T<sub>g</sub>, which allows for minimal stress on substrates during temperature changes. For a higher T<sub>g</sub>, use 9410.



### Features and Benefits

- Creates strong permanent electrical connections
- No mixing and unlimited working time
- Low cure temperature of 70 °C
- Room temperature storage
- Suitable for automated dispensing

### Available Packaging

Cat. No.	Packaging	Net Vol.	Net Wt.
9400-3ML	Syringe	3 mL	9.42 g
9400-30ML	Cartridge	30 mL	94.2 g

### Contact Information

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### Cured Properties

Resistivity	3.1 x 10 <sup>-4</sup> Ω·cm
Hardness	74 D
Tensile Strength	2.9 N/mm <sup>2</sup>
Compressive Strength	18 N/mm <sup>2</sup>
Lap Shear (stainless steel)	2.9 N/mm <sup>2</sup>
(aluminum)	3.2 N/mm <sup>2</sup>
Glass Transition Temperature (T <sub>g</sub> )	36 °C
CTE Prior T <sub>g</sub>	76 ppm/°C
CTE After T <sub>g</sub>	100 ppm/°C
Thermal Conductivity @ 25 °C	4.7 W/(m·K)
Service Temperature Range	-55–140 °C

### Usage Parameters

Working Time	Unlimited
Cure Times	2 h @ 70 °C
	30 min @ 80 °C

### Uncured Properties

Viscosity @ 25 °C	Thixotropic paste
Density	3.14 g/mL

## Application Instructions

Read the product SDS before using this product (downloadable at [www.mgchemicals.com](http://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. 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).
3. To stop the flow, pull back on the plunger.
4. Clean nozzle to prevent contamination and material buildup.
5. 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
9400-3ML	N/A	N/A
9400-30ML	8DG-30-1	N/A

## 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 @ 70 °C
- 30 min @ 80 °C

## 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.

### 9400-3ML

Shelf Life @ 22 °C 6 months

Shelf Life @ -10 °C 1 y

### 9400-30ML

Shelf Life @ 22 °C 6 months

Shelf Life @ -10 °C 9 months

## 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.