# 8330



# **Silver Conductive Epoxy Adhesive**

8330 is an electrically conductive, silver-filled 2-part epoxy adhesive. It is smooth, non-sagging, thixotropic, and bonds well to a wide variety of substrates.

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

8330 is highly filled to maximize electrical conductivity. For a more economical version, use 8331. For a longer working life, use 8330S.

#### **Features & Benefits**

- Creates strong permanent electrical connections
- Cures at room temperature
- · Excellent adhesion to many substrates
- Room temperature storage
- Long shelf life

## **Available Packaging**

| Cat. No.   | Packaging     | Net Vol. | Net Wt. |
|------------|---------------|----------|---------|
| 8330-19G   | 2 Syringe Kit | 6 mL     | 18.9 g  |
| 8330-50ML  | 2 Jar Kit     | 50 mL    | 157 g   |
| 8330-200ML | 2 Can Kit     | 200 mL   | 631 a   |

### **Contact Information**

MG Chemicals, 1210 Corporate Drive Burlington, Ontario, Canada L7L 5R6

Email: support@mgchemicals.com

Phone: North America: +(1)800-340-0772

International: +(1) 905-331-1396 Europe: +(44)1663 362888



### **Cured Properties**

| Resistivity                       | 1.0 x 10 <sup>-3</sup> Ω·cm |
|-----------------------------------|-----------------------------|
| Hardness                          | 73 D                        |
| Tensile Strength                  | 13 N/mm <sup>2</sup>        |
| Compressive Strength              | 36 N/mm <sup>2</sup>        |
| Lap Shear (stainless steel)       | 6.5 N/mm <sup>2</sup>       |
| (aluminum)                        | 5.4 N/mm <sup>2</sup>       |
| Water Absorption                  | 1.3 %                       |
| Outgassing @ 125 °C for 24 h      | 2.9 %                       |
| Glass Transition Temperature (Tg) | 53 °C                       |
| CTE Prior T <sub>g</sub>          | 89 ppm/°C                   |
| CTE After Tg                      | 224 ppm/°C                  |
| Thermal Conductivity @ 25 °C      | 1.8 W/(m·K)                 |
| Service Temperature Range         | -55–150 °C                  |
|                                   |                             |

### **Usage Parameters**

| Working Time        | 10 min      |
|---------------------|-------------|
| Service Cure        | 5 h @ 22 °C |
| Mix Ratio by Volume | 1:1         |
| Mix Ratio by Weight | 1.16:1      |

## **Uncured Properties**

| Mixed Density     | 3.30 g/mL             |
|-------------------|-----------------------|
| Viscosity @ 25 °C | (A) 8 300 Pa·s        |
|                   | (B) Thixotripic Paste |
| Shelf Life        | >3 y                  |

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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.
- 2. Measure 1.16 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**

Allow to cure at room temperature for 24 hours, or cure the adhesive in an oven for 20 min @ 65 °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.

## **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.