# 8329HTC



# **Thermally Conductive Structural Epoxy Adhesive**

8329HTC is a 2-part epoxy adhesive that features very high thermal conductivity, superior bonding strength, a robust operating temperature range and high dimensional stability. The epoxy is a thixotropic paste with minimal flow, allowing localized application into tight spaces.

The cured epoxy is tough and rigid, protecting the bonded area from physical impacts, shocks and vibration. It also withstands exposure to chemicals, fungus, salt water, humidity and corrosive gases, making it suitable for use in harsh environments.

#### **Features and Benefits**

- · High thermal conductivity
- · Superior tensile, compressive and lap shear strength
- Low coefficient of thermal expansion
- · Bonds strongly to metal, plastic, glass and wood
- Room temperature curing
- Strong resistance to humidity, salt water, chemicals and corrosive gas

# **Available Packaging**

Cat. No. **Packaging** Net Vol. Net Wt. 8329HTC-400ML Dual Cartridge 373 mL 635 g

# **Contact Information**

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### **Cured Properties**

| Color  | Gray                  |
|--|-----------------------|
| Resistivity                                    | 10 <sup>11</sup> Ω·cm |
| Dielectric Strength                            | 420 V/mil             |
| Dissipation Factor @ 1 kHz                     | 80.0                  |
| Hardness                                       | 86 D                  |
| Tensile Strength                               | 34 N/mm <sup>2</sup>  |
| Compressive Strength                           | 160 N/mm <sup>2</sup> |
| Lap Shear (stainless steel)                    | 15 N/mm <sup>2</sup>  |
| (aluminum)                                     | 17 N/mm <sup>2</sup>  |
| Glass Transition Temperature (T <sub>g</sub> ) | 90 °C                 |
| CTE Prior Tg                                   | 60 ppm/°C             |
| CTE After T <sub>g</sub>                       | >150 ppm/°C           |
| Thermal Conductivity @ 25 °C                   | 0.9 W/(m·K)           |
| Service Temperature Range                      | -55–160 °C            |

# **Usage Parameters**

| Working Time        | 80-120 min |
|---------------------|------------|
| Mix Ratio by Volume | 1:1.12     |
| Mix Ratio by Weight | 1:1        |

## **Uncured Properties**

| Mixed Density | 1.7 g/mL    |
|---------------|-------------|
| Viscosity     | 80-120 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.

### **Cartridge**

Both 50 mL and 400 mL size are packaged with a static mixer.

- **1.** Twist and remove the cap from the cartridge. Do not discard cap.
- **2.** Dispense a small amount to ensure even flow of both parts. A manual or pneumatic dispensing gun is required.
- 3. (Optional) Attach a static mixer.
  - **a.** Dispense and discard the length of the mixing tip to ensure a homogeneous mixture.
  - **b**. After use, dispose of static mixer.
- **4.** Without a static mixer, 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.** Re-place the cap on the cartridge.

#### **Cure Instructions**

Allow to cure at room temperature for 48 hours, or cure in an oven at one of these time/temperature options:

Temperature $65 \, ^{\circ}\text{C}$  $80 \, ^{\circ}\text{C}$ Time1 h $45 \, \text{min}$ 

### **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.