9200FR



Flame Retardant Structural Epoxy Adhesive

9200FR is a toughened, flame retardant, 2-part epoxy adhesive, designed to create long-lasting load-bearing joints. It creates tough vibration-resistant bonds and is especially useful for joining dissimilar materials that will experience thermal cycling stresses or harsh environmental conditions.

This smooth, non-sagging, thixotropic adhesive is excellent for use on vertical surfaces, for gap filling, and for potting electronics enclosures with gaps where a non-thixotropic encapsulant would flow through.



Features & Benefits

- UL94 V-0 approved (File #E334302)
- Excellent bond strength with a wide variety of substrates
- Extreme resistance to vibration and temperature cycles
- Superior tensile, compressive and lap shear strength
- · Excellent chemical resistance
- Excellent electrical insulating characteristics
- Low shrinkage
- · RoHS 3 compliant

Available Packaging

| Cat. No. | Packaging | Net Vol. | Net Wt. |
|-------------|----------------|----------|---------|
| 9200FR-25ML | Dual syringe | 25 mL | 32 g |
| 9200FR-50ML | Dual cartridge | 45 mL | 57.7 g |

Contact Information

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Cured Properties

| Breakdown Voltage | 39 800 V |
|--|-----------------------------|
| Dielectric Strength | 497 V/mil |
| Resistivity | 1.1 x 10 ¹³ Ω·cm |
| Hardness | 78 D |
| Tensile Strength | 13 N/mm ² |
| Compressive Strength | 46 N/mm ² |
| Lap Shear (stainless steel) | 14 N/mm ² |
| (aluminum) | 10 N/mm ² |
| Glass Transition Temperature (T _g) | 59 °C |
| CTE Prior Tg | 79 ppm/°C |
| CTE After Tg | 126 ppm/°C |
| Thermal Conductivity @ 25 °C | 0.4 W/(m·K) |
| Service Temperature Range | -40–150 °C |

Usage Parameters

| Working Time | 30 min |
|---------------------|--------|
| Mix Ratio by Volume | 1:1 |
| Mix Ratio by Weight | 1:0.92 |

Uncured Properties

| Mixed Density | | 1.34 g/mL |
|-------------------|-----|-----------|
| Viscosity @ 25 °C | (A) | 380 Pa·s |
| | (B) | 370 Pa·s |
| 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 or Cartridge

- **1.** Twist and remove the cap from the cartridge or syringe. Do not discard cap.
- **2.** Dispense a small amount to ensure even flow of both parts.
- 3. (Optional) Attach a static mixer to the 9200 FR-50 ML.
 - **a.** Dispense and discard 3 to 5 mL of the product 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.** 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. 8MT-50-FT should only be used with a pneumatic dispenser.

| Cat. No. | Dispensing Gun | Static Mixer |
|-------------|----------------|------------------|
| 9200FR-25ML | N/A | N/A |
| 9200FR-50ML | 8DG-50-1-1 | 8MT-50, 8MT-50FT |

Cure Instructions

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

| Temperature | 40 °C | 65 °C | 80 °C | 100 °C |
|-------------|-------|-------|-------|--------|
| Time | 16 h | 3 h | 1.5 h | 30 min |

Storage and Handling

Store between -10 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.