



## Bonding Adhesives for Industrial Applications

MG Chemicals bonding adhesives provide significant bond strength to similar and dissimilar substrates. They are used in a wide range of industrial applications where long-lasting load bearing joints are required.

### Features & Benefits

- Strong adhesion to a variety of substrates
- Excellent chemical and moisture resistance
- Exceptional durability and toughness
- Excellent sealing capacity against unwanted liquids and gases
- Weight and cost reduction through elimination of conventional metal fasteners

### Applications

- Automobile body panels
- Bonding to vertical surfaces
- Battery assembly (cell-to-cell or cell-to-carrier)
- Aircraft structural adhesives
- Surface mount technology
- Gap filling, potting, and sealing
- Bonding windows

### One-part

**9310** – Surface mount adhesive

### Two-part

**9200** – Structural, standard, 30 min *w.t.*

**9200FR** – Structural, UL 94V-0 rated, 30 min *w.t.*

**8332** – Fast set epoxy, 5 min *w.t.*

### Dispensing accessories

**Dispensing gun** – 8DG-50-1-1

**Mixing tips** – 8MT-50 (standard)  
8MT-50-FT (fine flow)



|   | 8332   | 9200   | 9200FR   | 9310                                  |
|---|--|--|--|---------------------------------------|
| <b>UNCURED PROPERTIES</b>                           |  |  |  |                                       |
| Number of components                                | 2  | 2  | 2  | 1                                     |
| Mixed density [g/mL]                                | 1.14   | 1.25   | 1.34   | 1.15                                  |
| Working time  | 3 to 5 min                                     | 30 min   | 30 min   | Unlimited                             |
| RT cure [h]   | 5  | 48   | 48   | —                                     |
| Heat cure [min @ °C]                                | 15 @ 65  | 960 @ 40                                       | 960 @ 40                                       | 30 @ 100                              |
|   | —  | 90 @ 65  | 180 @ 65                                       | 10 @ 120                              |
|   | —  | 60 @ 80  | 90 @ 80  | —                                     |
|   | —  | 15 @ 100                                       | 30 @ 100                                       | —                                     |
| <b>CURED PROPERTIES</b>                             |  |  |  |                                       |
| Resistivity [ $\Omega$ -cm]                         | $1.7 \times 10^{14}$                           | $2.5 \times 10^{13}$                           | $1.1 \times 10^{13}$                           | $9.3 \times 10^{12}$                  |
| Breakdown voltage [V]                               | 23 200   | 41 500   | 39 800   | 41 600                                |
| Dielectric strength [V/mil]                         | 250  | 503  | 497  | 220                                   |
| Service temperature range [°C]                      | -40 to 150                                     | -40 to 150                                     | -40 to 150                                     | -55 to 140                            |
| Glass transition temperature (T <sub>g</sub> ) [°C] | 64   | 44   | 59   | 113                                   |
| CTE prior T <sub>g</sub> [ppm/°C]                   | 76   | 95   | 79   | 56                                    |
| CTE after T <sub>g</sub> [ppm/°C]                   | 175  | 215  | 126  | 185                                   |
| Color   | Light yellow                                   | Grey yellow                                    | Light yellow                                   | Yellow                                |
| Hardness  | 82D  | 76D  | 78D  | 84D                                   |
| Tensile strength [N/mm <sup>2</sup> ]               | 34   | 16   | 13   | 9.4                                   |
| Compressive strength [N/mm <sup>2</sup> ]           | 63   | 64   | 46   | 103                                   |
| Lap shear (stainless steel) [N/mm <sup>2</sup> ]    | 4.9  | 20   | 14   | 8.5                                   |
| Lap shear (aluminum) [N/mm <sup>2</sup> ]           | 5.9  | 22   | 10   | 6.2                                   |
| <b>AVAILABLE PACKAGING</b>                          |  |  |  |                                       |
| Net contents  | 25 mL (dual-syringe)<br>46 mL (dual-cartridge) | 25 mL (dual-syringe)<br>45 mL (dual-cartridge) | 25 mL (dual-syringe)<br>45 mL (dual-cartridge) | 10 mL (syringe)<br>300 mL (cartridge) |

