



## 1-Part Adhesives for Easy Manufacturing Processes

MG Chemicals offers a full line of 1-part epoxy adhesives to meet the growing demand for ease of application in the manufacturing process. These adhesives require no mixing, and offer unlimited working time. Our 1-part epoxies enhance productivity by simplifying production processes and storage requirements.

### Features and Benefits

- Easy to dispense—no mixing required
- Unlimited working time
- Low to moderate cure temperatures
- Extended shelf life at room temperatures
- Excellent adhesion to common electronics substrates and components

### Applications

- Surface Mount Technology (SMT)
- Chip bonding
- LED manufacturing
- Bonding dissimilar substrates
- Telecommunications equipment
- Medical devices
- Automotive components

### General Bonding

- 9310**
- Surface Mount Adhesive (SMA) and chip bonding
  - Unlimited working time

### Electrically Conductive

- 9410**
- High conductivity, high T<sub>g</sub>
  - Resistivity of  $1.8 \times 10^{-3} \Omega \cdot \text{cm}$
  - Unlimited working time

### Thermally Conductive

- 9460TC**
- High thermal conductivity of  $0.8 \text{ W}/(\text{m} \cdot \text{K})$
  - Unlimited working time

# 1-Part Epoxy Adhesives



## UNCURED PROPERTIES

	9310	9410	9460TC
Number of components	1	1	1
Mixed density [g/mL]	1.15	2.34	1.64
Working time	Unlimited	Unlimited	Unlimited
Service cure @ 22 °C	—	N/A	—
RT cure [h]	—	N/A	—
Heat cure [min @ °C]	30 @ 100 10 @ 120	60 @ 90 30 @ 100 7 @ 120	120 @ 80 60 @ 100 30 @ 120

## CURED PROPERTIES

Resistivity [ $\Omega \cdot \text{cm}$ ]	$9.3 \times 10^{12}$	$1.8 \times 10^{-3}$	$7.4 \times 10^{16}$
Service temperature range [°C]	-55 to 140	-65 to 145	-65 to 150
Glass transition temperature ( $T_g$ ) [°C]	113	96	106
CTE prior $T_g$ [ppm/°C]	56	42	36
CTE after $T_g$ [ppm/°C]	185	150	72
Thermal conductivity @ 25 °C [W/(m·K)]	0.2	1.1	0.8
Thermal diffusivity @ 25 °C [mm²/s]	0.2	0.7	0.5
Specific heat capacity @ 25 °C [J/(g·K)]	1.4	0.8	1.2
Color	Yellow	Silver grey	White
Hardness	84D	70D	86D
Tensile strength [N/mm²]	9.4	N/A	9.1
Compressive strength [N/mm²]	103	26	78
Lap shear (stainless steel) [N/mm²]	8.5	2.6	6.0
Lap shear (aluminum) [N/mm²]	6.2	2.8	3.2

Refer to TDS for more information. N/A=Not Available

## AVAILABLE PACKAGING

Net content	10 mL (syringe) 300 mL (cartridge)	3 mL (syringe) 30 mL (syringe)	3 mL (syringe) 10 mL (syringe)
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