



## 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)

### Electrically Conductive

**9410** – High conductivity, high  $T_g$

**9400** – Extreme conductivity

### Thermally Conductive

**9460TC** – High thermal conductivity

# 1-Part Epoxy Adhesives



	9310	9400	9410	9460TC
<b>UNCURED PROPERTIES</b>				
Number of components	1	1	1	1
Mixed density [g/mL]	1.15	3.14	2.34	1.64
Working time	Unlimited	Unlimited	Unlimited	Unlimited
Service cure @ 22 °C	—	N/A	N/A	—
RT cure [h]	—	N/A	N/A	—
Heat cure [min @ °C]	30 @ 100 10 @ 120	120 @ 70 30 @ 80	60 @ 90 30 @ 100 7 @ 120	120 @ 80 60 @ 100 30 @ 120

<b>CURED PROPERTIES</b>				
Resistivity [ $\Omega \cdot \text{cm}$ ]	$9.3 \times 10^{12}$	$3.1 \times 10^{-4}$	$1.8 \times 10^{-3}$	$7.4 \times 10^{16}$
Service temperature range [°C]	-55 to 140	-55 to 140	-65 to 145	-65 to 150
Glass transition temperature ( $T_g$ ) [°C]	113	36	96	106
CTE prior $T_g$ [ppm/°C]	56	76	42	36
CTE after $T_g$ [ppm/°C]	185	100	150	72
Thermal conductivity @ 25 °C [W/(m·K)]	0.2	4.7	1.1	0.8
Thermal diffusivity @ 25 °C [mm <sup>2</sup> /s]	0.2	2.2	0.7	0.5
Specific heat capacity @ 25 °C [J/(g·K)]	1.4	0.7	0.8	1.2
Color	Yellow	Silver grey	Silver grey	White
Hardness	84D	74D	70D	86D
Tensile strength [N/mm <sup>2</sup> ]	9.4	2.9	N/A	9.1
Compressive strength [N/mm <sup>2</sup> ]	103	18	26	78
Lap shear (stainless steel) [N/mm <sup>2</sup> ]	8.5	2.9	2.6	6.0
Lap shear (aluminum) [N/mm <sup>2</sup> ]	6.2	3.2	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) 30 mL (syringe)	3 mL (syringe) 10 mL (syringe)
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