



Maximum Heat Dissipation from Electronic Assemblies

MG Chemicals offers thermally conductive epoxy adhesives for bonding heat sinks, LEDs, and other heat generating electronic components.

Features & Benefits

- Creates strong permanent thermal bonds
- Eliminates need for mechanical fasteners
- Excellent thermal conductivity (*TC*)
- Provides strong electrical insulation
- Room temperature storage
- Maintains bonds in severe environments
- Excellent chemical resistance
- Excellent mechanical stability
- A wide variety of working times (*w.t.*)

Applications

- Bonding heat sinks
- Power semiconductor devices
- Flip chip BGA heat spreaders
- Battery modules and battery packs
- LED lighting
- Power Supplies
- Automotive lighting
- Appliances

One-part

9460TC – *TC* of 0.8 W/(m·K), unlimited *w.t.*, no mixing, heat cure only

Two-part

8329TFF – *TC* of 0.8 W/(m·K), 5 min *w.t.*, dispensable, UL 94V-0 rated - flame retardant

8349TFM – *TC* of 1.1 W/(m·K), 20 min *w.t.*, dispensable, meets UL 94V-0 - flame retardant

8329TCM – *TC* of 1.4 W/(m·K), 45 min *w.t.*, non-sagging

8329TFS – *TC* of 0.8 W/(m·K), 4 hours *w.t.*, dispensable, heat cure only

8329TCS – *TC* of 0.8 W/(m·K), 4 hours *w.t.*, non-sagging, heat cure only

Dispensing accessories

Dispensing gun – 8DG-50-1-1

Mixing tips – 8MT-50 (standard)

8MT-50-FT (fine flow)



Thermally Conductive Adhesives



	8329TCS	8329TCM	8329TFS	8349TFM	8329TFF	9460TC
UNCURED PROPERTIES						
Number of components	2	2	2	2	2	1
Mixed density [g/mL]	2.27	2.41	2.11	1.74	1.63	1.64
Working time	4 h	45 min	4 h	20 min	5 min	Unlimited
Service cure @ 22 °C	—	5 h	—	90 min	5 h	—
Room temp. cure [h]	Heat cure	24	Heat cure	16 hours	4 h	Heat cure
Heat cure [min @ °C]	120 @ 65 60 @ 80 20 @ 100	60 @ 65 45 @ 80 20 @ 100	180 @ 65 80 @ 80 30 @ 100	20 @ 65 10 @ 80 —	15 @ 65 10 @ 80 —	120 @ 80 60 @ 100 30 @ 120
CURED PROPERTIES						
Resistivity [Ω -cm]	2×10^{13}	9×10^{12}	1.0×10^{12}	1.2×10^{12}	7.9×10^{12}	7.4×10^{16}
Service temperature range [°C]	-40 to 150	-40 to 150	-40 to 150	-50 to 165	-40 to 150	-65 to 150
Glass transition temperature (T _g) [°C]	8.8	46	9	39	25	106
CTE prior T _g [ppm/°C]	36	71	47	32	34	36
CTE after T _g [ppm/°C]	173	131	164	155	146	72
Thermal conductivity @ 25 °C [W/(m·K)]	1.4	1.4	1.2	1.1	0.8	0.8
Thermal diffusivity @ 25 °C [mm ² /s]	0.7	0.6	0.6	0.4	0.3	0.5
Specific heat capacity @ 25 °C [J/(g·K)]	0.9	0.9	1.0	1.3	1.4	1.2
Color	Silver grey	Silver grey	Silver grey	Black	Biege	White
Hardness	62D	77D	68D	88D	82D	86D
Tensile strength [N/mm ²]	11	10	4.2	29	13	9.1
Compressive strength [N/mm ²]	43	34	42	125	65	78
Lap shear (stainless steel) [N/mm ²]	4.7	6.4	5.0	6.4	7.1	6.0
Lap shear (aluminum) [N/mm ²]	4.4	6.1	6.3	4.0	8.3	3.2

Refer to TDS for more information.

AVAILABLE PACKAGING

Net contents	6 mL (2 syringe kit)	6 mL (2 syringe kit)	25 mL (Dual-syringe)	25 mL (Dual-syringe)	25 mL (Dual-syringe)	3 mL (Syringe)
	50 mL (2 jar kit)	50 mL (2 jar kit)	45 mL (Dual-cartridge)	45 mL (Dual-cartridge)	45 mL (Dual-cartridge)	10 mL (Syringe)

