9460TC

Thermally Conductive 1-Part Epoxy Adhesive

9460TC is a 1-part, heat cured only, thermally conductive epoxy adhesive with an unlimited working time. It is an off-white, smooth, thixotropic paste that cures to form a hard, durable polymer that is thermally conductive, yet electrically insulating.

This 1-part adhesive is used to glue heat sinks to LEDs, CPUs and other heat-generating components. It does not require mixing and is suitable for use with manual, pneumatic, and automatic dispensing systems.

Features and Benefits

- High thermal conductivity
- No mixing required prior to use
- Provides strong electrical insulation
- Low cure temperature (<100 °C)
- Room temperature storage
- Bonds well to a wide variety of substances
- Strong resistance to humidity, salt water, mild bases, and aliphatic hydrocarbons

Available Packaging

Cat. No.	Packaging	Net Vol.	Net Wt.
9460TC-3ML	Syringe	3 mL	4.90 g
9460TC-10ML	Syringe	10 mL	16.3 g

Contact Information

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Cured Properties

Resistivity	7.4 x 10^{16}	Ω·cm
Hardness	86	D
Tensile Strength	9.1	N/mm^2
Compressive Strength	78	N/mm^2
Lap Shear (stainless steel)	6.0	N/mm^2
(aluminum)	3.2	N/mm^2
Glass Transition Temperature (T_g)	106	˚C
CTE Prior T_g	36	ppm/˚C
CTE After T_g	72	ppm/˚C
Thermal Conductivity @ 25 ˚C	0.8	W/(m·K)
Service Temperature Range	-65–150	˚C
Intermittent Temperature	215	˚C

Usage Parameters

Working Time	Unlimited
Cure Times	2 h @ 80 ˚C
	1 h @ 100 ˚C
	30 min @ 120 ˚C

Uncured Properties

Viscosity @ 25 ˚C	Thixotropic paste
Density	1.64 g/mL

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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).

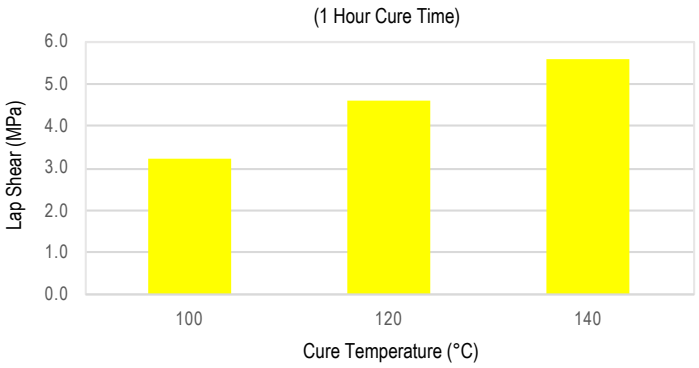
Recommended Preparation

Clean the substrate with Isopropyl Alcohol, MG #824, so the surface is free of oils, dust, and other residues.

Syringe

1. Twist and remove the cap from the syringe. Do not discard cap.
2. Dispense the adhesive evenly to both surfaces.
3. To stop the flow, pull back on the plunger.
4. Clean nozzle to prevent contamination and material buildup.
5. Re-place the cap on the cartridge or syringe.

Lap Shear vs. Cure Temperature



Cure Instructions

The product will not cure at room temperature. Cure the adhesive in an oven at one of these time/temperature options:

Temperature	80 °C	100 °C	120 °C
Time	2 hours	1 hour	30 minutes

Storage and Handling

Store below 30 ˚C in a dry area, away from sunlight (see SDS). To maximize shelf life, recap product firmly when not in use.

9460TC-3ML

Temperature	22 °C	4 °C	-10 °C
Shelf Life	6 months	10 months	14 months

9460TC-10ML

Temperature	22 °C	4 °C	-10 °C
Shelf Life	3 months	6 months	14 months

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.