

Polyplate™ Thermal Gel TGL120DF

TGL120DF is a curable thermal conductive gel engineered for heat-dissipation assembly of electronic components. It achieves high thermal conductivity through a specialized filler-compounding system and proprietary manufacturing process. Without a diamond formulation, it maintains reliable thermal performance while optimizing material cost and process compatibility. Low interfacial thermal resistance can be achieved at a relatively low pressure. It can be used between heating power devices and radiating aluminum sheets or shells to effectively eliminate the air, thereby reducing air contact thermal resistance and achieving an effective filling effect.

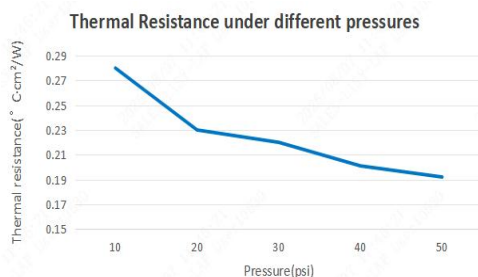
Product Features and Advantages

- High thermal conductivity and low thermal resistance
- Low oil bleeding
- Superior temperature resistance
- High flow rate
- Easy for assembly



Typical Properties

Property		Unit	Typical Value	Test Standard
Thermal Properties	Thermal Conductivity	W/m-K	12	ASTM D5470
	Thermal resistance@40Psi	°C·cm²/W	0.2	ASTM D5470
Physical Properties	Color	/	Blue	Visual Inspection
	Density	g/cm³	3.2	ASTM D792
	Hardness	Shore00	60	ASTM D2240
	BLT	um	190	ASTM D374
Electrical Properties	Breakdown Voltage @1mm	kV	8.0	ASTM D149
	Volume resistance	Ω·cm	10 ¹²	GB/T 1410
Other Properties	Flow Rate@0.5Mpa	g/min	0.9	SG Internal Method
	Flame Retardant Rating	/	V0	UL94
	Curing time@130°C	min	30	SG Internal Method



Remarks: All data and information above shown are averages and should be considered as a reference only. Any specific application should be tested by customer. The data is subject to change without notice.

Storage & Shelf Life

- Shelf Life: 6 months from the date of manufacture;
- Store indoors in a dark place, at a temperature of -18°C to -10°C and relative humidity ≤65%RH;
- Store and transport as non-dangerous goods.

Availability

- Standard Size: 30cc/55cc/300cc;
- Customized specifications available upon customer request;

Application Note

- Frozen Storage. When planning to use, allow it to reach room temperature for approximately 2 hours before application;
- Room Temperature Storage. If stored in the tube at room temperature, the product can be preserved for up to 2 days without extrusion.;
- Period After Opening. Ensure that the product is used within the same day after thawing for continued application. If the product has been squeezed out, kindly use it within one day for maximum effectiveness.

- ✧ Curing Conditions. The product needs to be baked at 130 ± 5 °C for 0.5 hour to complete curing;
- ✧ Unutilized Portion. In case there is an unused portion, consider returning it to the refrigerator for storage;
- ✧ Microscopic bubbles. Occasionally, a small amount of bubbles may appear at the beginning and end of the packaged adhesive. This phenomenon does not negatively affect product performance. We are currently working to optimize the filling process to further improve this issue.

These guidelines are designed to enhance the product's usability and effectiveness. If you have any questions or need further clarification, please feel free to reach out.

Disclaimer:

All statements, technical information and recommendations herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and the following is made in lieu of all warranties, expressed or implied, including the implied warranties, of merchantability and fitness for purpose: Seller's and manufacturer's only obligation shall be to replace such quantity of the product proved to be defective. Before using, user shall determine the suitability of the product for its intended use, and user assumes all risk and liability whatsoever in connection there with. Neither seller nor manufacturer shall be liable either in tort or in contract for any loss or damage, direct or indirect, incidental, or consequential, arising out of the use of or the inability to use product. No statement or recommendation not contained herein shall have any force or effect in an agreement signed by officers of seller or manufacturer.

For any questions, please contact the Singleton noted below

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