

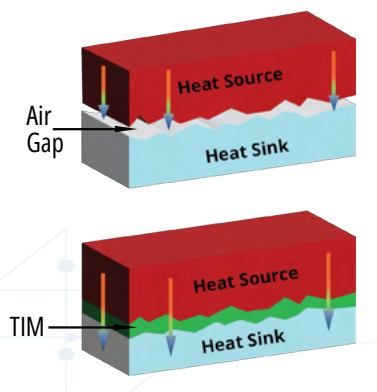
Thermal Interface Solutions

Leading the Way in Advanced Materials Solutions®

Thermal interface materials (TIMs) play an important role in preventing overheating of critical components in electronic systems for many industries. Passive heat spreading components are made with high thermal conductivity materials that dissipate heat from the source to a colder heat sink or heat exchanger.

These components are typically made with materials such as graphite, carbon-filled silicone, and silicone with metal cores such as aluminum. They are flexible and compressible to fill air gaps between two surfaces for efficient heat transfer.

Fralock is a provider of custom thermal pad solutions fabricated to satisfy your unique requirements.



FRALOCK PROVIDES CUSTOM HEAT SPREADER SOLUTIONS TO SATISFY YOUR UNIQUE REQUIREMENTS

Why Fralock?

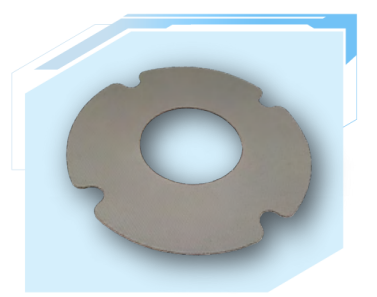
Our expert material science engineers can specify the best materials for your application, and our in-house manufacturing capabilities include high-precision die-cutting, UV and CO2 laser cutting, machining, slitting, heat press, laminating, adhesive lamination, welding, assembly and other value-added services. Fralock's materials are sourced from trusted, world-class suppliers, and our ISO 9001 quality management system ensures the accuracy, consistency, and quality of your products.



Materials

TIM components can be fabricated with or without adhesives.

- **Silicone-Based Elastomers** - Flexible and conformable. Filled with Z-axis-oriented carbon, they are excellent at transferring heat to adjacent components. Electrically conductive or electrically insulative available.
- **Graphite** - Lightweight, flexible graphite with half the thickness and one third the weight of aluminum. These materials are resistant to high temperatures and chemicals with high surface conformity. Electrically conductive.
- **Adhesives** - Fralock offers thermally-conductive pressure-sensitive adhesives for a broad range of requirements
- **Other Non-Silicone Materials** - Fralock provides non-silicone based TIMs that include metal foils and other thermally conductive gap pads. Contact us for your specific requirements.



Thermal Interface Materials Fralock Thermal Pads, Gap Pads

Reference Table

Material Property	Type	Thermal Conductivity (W/mK)	Available Thickness (mm)	Operating Temperature	Flammability Rating
Thermally & Electrically Conductive Silicone	Silicone-based with carbon fibers	up to 50	0.1 to 3.0	Up to 150°C to 200°C	UL94 V0
Thermally & Electrically Conductive Graphite	Graphite with vertically oriented graphite fillers	25 - 45	0.15 - 2.0	Up to 200°C	--
Thermally Conductive & Electrically Insulating	Gap filler with silicone formulation	Up to 12	0.5 - 5.0	Up to 125°C to 200°C	UL94 V0
Other Options	Various	1 - 50	We can provide many other material options to meet your project-specific criteria. Please contact Fralock for assistance.		

FRALOCK OPERATES UNDER THE HIGHEST QUALITY STANDARDS



Let us help you with your next challenging project!

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