

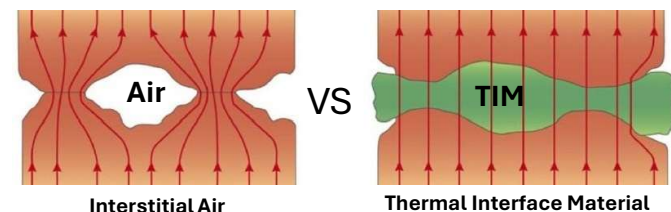
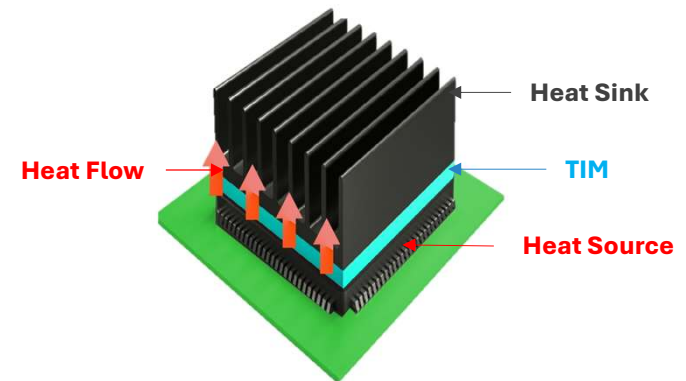


Product Catalog

**Thermal
Interface
Materials**

Principles of Thermal Interface Materials (TIM)

- **Purpose:** Thermal Interface Materials (TIMs) are used to enhance heat dissipation in electronic devices by filling microscopic gaps between components and heat sinks.
- **Problem:** These gaps typically contain air, which has very low thermal conductivity ($\sim 0.026 \text{ W/m}\cdot\text{K}$), impeding effective heat transfer.
- **Solution:** TIMs replace the air in these gaps, creating a high thermal conductivity pathway that significantly improves heat transfer efficiency.
- **Benefits:**
 - Ensures optimal operating temperatures for electronic components.
 - Enhances device performance and reliability.
 - Extends the lifespan of the components.
- **Types of TIMs:** Common types include thermal pads, pastes, phase change materials, and adhesives, each suited to different applications.



Thermal Pads Product Category



Silicone Thermal Pad

- Supports Multiple Performance Customizations: color, hardness, oil bleeding, siloxane volatility, options for glass fiber reinforcement, and adhesive backing.
- Thermal Conductivity: 1.5~15.0 W/m·K
- Thickness: 0.3~10.0mm

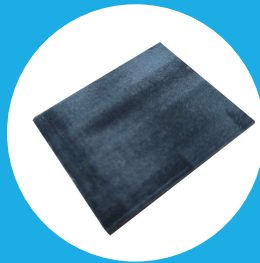
P6



Silicone-Free Thermal Pad

- No risk of silicone oil migration or siloxane volatility.
- Excellent tensile strength and abrasion resistance.
- Thermal Conductivity: 1.8~8.0 W/m·K
- Thickness: 0.5~5.0 mm

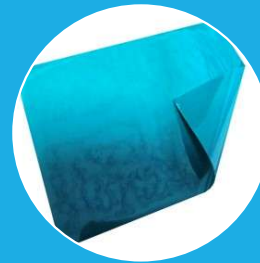
P7



Carbon Fiber Thermal Pad

- Utilizing carbon fiber orientation technology, achieving ultra-high thermal conductivity performance.
- Supports customization of high resilience (HR) and high compression (HC) versions.
- Thermal Conductivity: 15.0~45.0 W/m·K
- Thickness: 0.3~12.0 mm

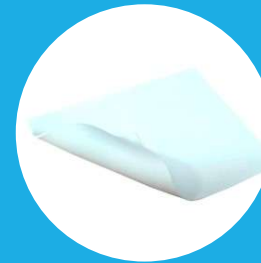
P8



Phase Change Thermal Pad

- Phase Change Temperature 45~55°C
- Low thermal impedance, good wet-out properties, can replace thermal grease, easy to handle.
- Optional PI film or Aluminum Foil substrate.
- Thermal Conductivity: 1.8~8.0 W/m·K
- Thickness: 0.13~0.5 mm

P9



Thermal Film

- Substrate Types:
 1. Fiberglass (high mechanical strength)
 2. PI Film (high electrical insulation)
- Thermal Conductivity: 0.8~3.5 W/m·K
- Thickness: 0.15~0.5 mm

P10

Thermal Pads Product Category



Thermal Grease

- Excellent wet-out, with a very thin interfacial layer of 0.05 mm and extremely low thermal impedance.
- No preheating required, suitable for manual application or screen printing.
- Thermal Conductivity: 1.0~5.0 W/m·K
- Thermal Impedance: 0.04~0.015 °C*in2/W

P11



Thermal Gel

- Non-curing material with excellent wet-out and low thermal impedance.
- Provides low assembly stress, ideal for thin gaps, large tolerances, or fragile components.
- Thermal Conductivity: 2.0~10.0 W/m·K

P12~P13



Thermal Conductive Adhesive

- Room-temperature curing with excellent adhesion, thermal conductivity, and electrical insulation properties.
- Long-term temperature resistance..
- Thermal Conductivity: 1.0~2.0 W/m·K

P14



Thermal Potting Compound

- Room-temperature or heat-curing elastomer providing protection, insulation, and thermal conductivity.
- High flowability with self-leveling.
- Thermal Conductivity: 0.8~ 3.5 W/m·K

P15



Thermal PU Adhesive

- Two-component formulation that cures at room temperature or with heat, offering excellent chemical resistance.
- 100% solids, producing no harmful volatiles and ensuring a safe, non-toxic material.
- Thermal Conductivity: 1.0~2.0 W/m·K

P16

Silicone Foam



Features:

1. Excellent wet-out properties and low flowability, effectively filling uneven gaps.
2. Minimal interfacial thickness and low thermal impedance.
3. No preheating required, suitable for manual coating or screen printing.

Applications:

Filling gaps between CPUs, GPUs, and heatsinks.

Model	Density, kg/m ³	Thickness, mm	Compression Set, at 50%, 100°C	Elongation	Flame Rating, UL 94	Operating Temp., °C
JSSA-700-200	200	1.6~20.0	< 5%	60%	V-0, HF-1	-55~220
JSSA-700-260	260	1.2~20.0	< 5%	70%	V-0, HF-1	-55~220
JSSA-700-300	300	1.2~20.0	< 5%	60%	V-0, HF-1	-55~220
JSSA-700-350	350	0.6~20.0	< 5%	90%	V-0, HF-1	-55~220
JSSA-700-400	400	1.0~12.0	< 5%	80%	V-0, HF-1	-55~220

Silicone Thermal Pad


Features:

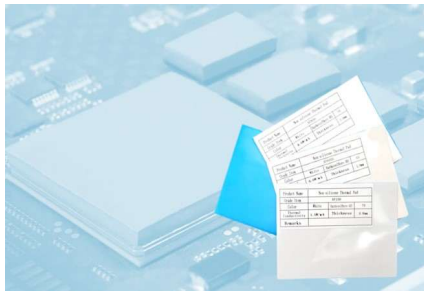
1. Good flexibility and resilience.
2. Good electrical insulation and thermal stability.
3. Natural tacky, easy to use and rework.

Applications:

Chips, routers, capacitors, memory/VRAM particles, hard drives, LED lighting devices, control boards, splitters, relays.

Model	Thermal Conductivity W/m·K	Thermal Impedance, °C*in ² /W at 30psi, 1mm	Thickness, mm	Standard Hardness, Shore 00	Dielectric Strength, kV/mm	Flame Rating, UL94	Operating Temp., °C
JSSF-0100	1.5	0.90	0.3~10.0	40/60	>8	V-0	-50~200
JSSF-0300	2.0	0.70	0.3~10.0	40/60	>8	V-0	-50~200
JSSF-0400	2.5	0.50	0.3~10.0	40/60	>8	V-0	-50~200
JSSF-0500	3.0	0.45	0.3~10.0	40/60	>8	V-0	-50~200
JSSF-0500G	3.5	0.45	0.3~10.0	40/60	>8	V-0	-50~200
JSSF-0600D	4.0	0.40	0.5~5.0	40/60	>8	V-0	-50~200
JSSF-0600	5.0	0.35	0.5~5.0	40/60	>8	V-0	-50~200
JSSF-0600G	6.0	0.30	0.5~5.0	40/60	>8	V-0	-50~200
JSSF-0700	7.0	0.25	0.5~5.0	40/60	>6	V-0	-50~150
JSSF-0800	8.0	0.22	0.5~5.0	40/60	>6	V-0	-50~150
JSSF-1000	10.0	0.18	0.5~5.0	40/60	>6	V-0	-50~125
JSSF-1200	12.0	0.15	0.8~5.0	40/60	>6	V-0	-50~125
JSSF-1500	15.0	0.10	1.0~5.0	40±10	>6	V-0	-40~120

Silicone-Free Thermal Pad



Features:

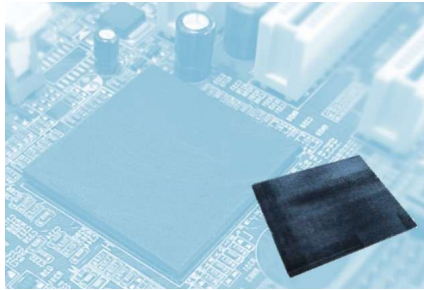
1. No risk of silicone oil migration or siloxane volatility.
2. Excellent tensile strength and abrasion resistance.
3. Good electrical insulation and flame rating.
4. Natural tacky, easy to use and rework.

Applications:

Automotive sensors, fiber optic communication systems, high-end industrial control equipment, medical devices.

Model	Thermal Conductivity W/m·K	Thermal Impedance, °C*in ² /W at 30psi, 1mm	Thickness, mm	Standard Hardness, Shore 00	Compression Rate, at 30psi, 1mm	Elongation	Operating Temp., °C
JSAF-0100	1.0	1.10	0.5~5.0	50/70	35%	100%	-40~125
JSAF-0300	2.0	0.80	0.5~5.0	50/70	30%	70%	-40~125
JSAF-0500	3.0	0.60	0.5~5.0	50/70	30%	70%	-40~125
JSAF-0600D	4.0	0.40	0.5~5.0	50/70	30%	50%	-40~120
JSAF-0600	5.0	0.30	0.5~2.0	70	20%	50%	-40~120
JSAF-0600G	6.0	0.25	0.5~2.0	70	20%	50%	-40~120

Carbon Fiber Thermal Pad



Features:

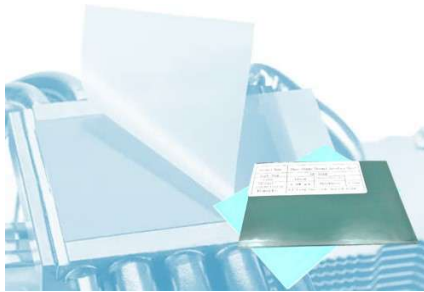
1. Ultra-high thermal conductivity in the vertical direction, low thermal impedance.
2. Good flexibility, resilience, and thermal stability.
3. Natural tacky, easy to use and rework.

Applications:

5G base station RRU, chips, capacitors, memory/VRAM particles, hard drives, control boards, splitters, relays.

Model	Thermal Conductivity W/m·K	Thermal Impedance, °C·in ² /W at 20psi, 1mm	Thickness, mm	Standard Hardness, Shore 00	Custom Hardness, Shore 00	Dielectric Strength, kV/mm	Operating Temp., °C
JSCSF-0015	15.0	0.28	0.3~12.0	40/60	40~90	0.1	-50~160
JSCSF-0020	20.0	0.18	0.3~12.0	40/60	40~90	0.1	-50~160
JSCSF-0025	25.0	0.12	0.3~12.0	40/60	40~90	0.1	-50~160
JSCSF-0030	30.0	0.10	0.3~12.0	40/60	40~90	0.1	-50~160
JSCSF-0040	40.0	0.08	0.3~12.0	40/60	40~90	0.1	-50~160
JSCSF-0045	45.0	0.07	0.3~12.0	40/60	40~90	0.1	-50~160

Phase Change Thermal Pad



Features:

1. Solid at room temperature with natural tacky properties for easy assembly, melts and softens at 45~55°C, offering good wet-out properties and low thermal impedance.
2. Optional PI film or Aluminum Foil substrate (high electrical insulation performance: SP350P).

Applications:

Filling gaps between CPU/GPU and heatsinks.

Model	Color	Thermal Conductivity W/m·K	Thermal Impedance, °C*in ² /W at 20psi, 1mm	Custom Thickness, mm	Phase Change Temp., °C	Operating Temp., °C
JSSP-205A-30	Gray	3.0	0.05	0.13~0.5	45~55	-40~125
JSSP-205A-35	Gray	3.5	0.04	0.13~0.5	45~55	-40~125
JSSP-205A-40	Gray	4.0	0.03	0.2~0.5	45~55	-40~125
JSSP-205A-50	Gray	5.0	0.02	0.2~0.5	55~65	-40~125
JSSP-205A-60	Gray	6.0	0.015	0.2~0.5	45~55	-40~125
JSSP-205A-L80	Gray	8.0	0.007	0.2~0.5	45~55	-20~120
JSSP-350P	Green	1.8	0.4	0.2~0.5	45~55	-20~120

Thermal Film


Features:

Optional Fiberglass or Polyimide Film (PI film) as the substrate, coated on both sides with a mixture of thermal conductive fillers and silicone, offering high mechanical strength and high electrical insulation properties.

Applications:

Supplies (UPS), MOSFETs, switching power supplies, power amplifiers, electric vehicle motor controllers.

Model	Substrate	Thickness, mm	Thermal Conductivity W/m·K	Breakdown Voltage, AC	Hardness, Shore A	Operating Temp., °C
JSSC-0800SG	Fiberglass	0.3~0.5	0.8	> 4 kV	45	-50~200
JSSC-0900FG	Fiberglass	0.23~0.5	2.0	> 4 kV	45	-50~200
JSSC-1000FG	Fiberglass	0.25~0.5	3.5	> 4 kV	90	-50~200
JSSC-0800PI-2-K4	PI Film	0.15	0.9	> 4 kV	90	-50~200
JSSC-0800PI-2-K6	PI Film	0.15	1.1	> 4 kV	90	-50~200
JSSC-0800PI-2-K10	PI Film	0.15	1.3	> 4 kV	90	-50~200

Thermal Grease



Features:

1. Excellent wet-out properties and low flowability, effectively filling uneven gaps.
2. Minimal interfacial thickness and low thermal impedance.
3. No preheating required, suitable for manual coating or screen printing.

Applications:

Filling gaps between CPUs, GPUs, and heatsinks.

Model	Thermal Impedance, $^{\circ}\text{C}\cdot\text{in}^2/\text{W}$ at 30psi	Thermal Conductivity $\text{W}/\text{m}\cdot\text{K}$	Minimal Interfacial Thickness, mm	Viscosity, $\text{Pa}\cdot\text{s}$, at 25°C	Density, g/cm^3	Operating Temp., $^{\circ}\text{C}$
JSSG-0560-10	0.04	1.0	0.05	150	2.0	-50~150
JSSG-0560-20	0.035	2.0	0.05	200	2.2	-50~150
JSSG-0560-30	0.02	3.0	0.05	240	2.5	-50~150
JSSG-0560-40	0.017	4.0	0.05	350	2.6	-50~150
JSSG-0560-50	0.015	5.0	0.05	400	2.8	-50~150

Thermal Gel



Features:

1. Excellent compressibility and wet-out, suitable for applications with complex gap variations.
2. Precise thickness and shape control through automated dispensing systems.
3. Cures into an elastomer, maintaining gap stability and providing shock absorption.

Applications:

Automotive electronics, mobile phones and laptop processors, communication equipment.

Model	Color	Thermal Conductivity W/m·K	Extrusion Rate, g/min, at 30cc, 90psi	Density, g/cc	Operating Temp., °C
JSSE-20	Pink	2.0	80±15	2.5	-40~150
JSSE-30	Pink	3.0	25±15	3.0	-40~150
JSSE-40	Pink	4.0	40±5	3.1	-50~150
JSSE-50	Pink	5.0	40±5	3.1	-50~150
JSSE-60	Gray	6.0	20±5	3.3	-50~150
JSSE-80	Gray	8.0	30±5	3.4	-50~150
JSSE-100	Gray	10.0	10±5	3.4	-50~150

Model	Color	Thermal Conductivity W/m·K	Extrusion Rate, g/min, at 50cc, 90psi	Density, g/cc	Hardness After Curing, Shore 00
JSSE-200AB	White + Pink	2.0	50±5	2.1	55±10
JSSE-300AB	White + Pink	3.0	20±5	3.0	55±10
JSSE-400AB	White + Pink	3.5	30±5	3.1	55±10
JSSE-500AB	White + Gray	5.0	15±5	3.1	55±10
JSSE-600AB	White + Gray	6.0	10±5	3.2	55±10
JSSE-800AB	White + Gray	8.0	10±5	3.2	55±10

Thermal Gel (Non-Silicone)


Features:

1. Non-silicone component.
2. Good Thermal Conductivity.
3. Low Thermal Impedance.
4. Excellent Wetting Properties.

Applications:

Sensors, CPUs and GPUs, Power Supply Units (PSUs), Engine Control Units (ECUs)

Model	Color	Thermal Conductivity W/m·K	Thermal Impedance, °C*in ² /W at 30psi	Extrusion Rate, g/min, at 30cc, 90psi	Density, g/cc	Operating Temp., °C
JSAE-10-LT	Gray	1.0	0.13	40±5	2.0	-50 ~ 120
JSAE-20-LT	Gray	2.0	0.08~0.09	30±5	2.5	-50 ~ 120
JSAE-30-LT	Gray	3.0	0.06~0.07	20±5	3.0	-50 ~ 120

Thermal Conductive Adhesive


Features:

1. Silicone-based material that combines strong adhesion with reliable thermal and electrical insulation for effective heat transfer.
2. Delivers stable performance and durability under long-term high temperatures.

Applications:

LED lighting, communication equipment, power devices

Model	Thermal Conductivity W/m-K	Tack-Free Time, at 25°C, min	Full Cure Time, at 25°C, hrs	Bonding Strength, Mpa	Hardness, Shore A	Operating Temp., °C
JSTIV-800-10	1.0	5~10	24	≥ 1.5	40~60	-50~200
JSTIV-800-12	2.0	5~10	24	≥ 1.5	40~60	-50~200
JSTIV-800-15	3.0	5~10	24	≥ 1.5	40~60	-50~200
JSTIV-800-20	4.0	5~10	24	≥ 1.5	40~60	-50~200

Thermal Potting Compound


Features:

1. Good flowability and self-leveling, with low-density stability that resists settling.
2. High temperature tolerance, maintaining durability without cracking in extreme conditions.
3. Enhances internal strength after potting, protecting components while providing thermal conductivity and electrical insulation.

Applications:

Securing PCBs within casings, inverters, car chargers, and automotive power modules.

Model	Thermal Conductivity W/m-K	Viscosity after Mixed, cPs	Hardness After Curing, Shore A	Dielectric Strength, kV/mm, AC
JSUS-5201-00	0.8	2000~3000	45±10	> 2.0
JSUS-5201-10	1.0	2500~3000	20±5	> 2.0
JSUS-5201-15	1.5	4000~4500	45±5	> 2.5
JSUS-5201-20	2.0	6000~6500	20±5	> 2.5
JSUS-5201-25	2.5	8000~8500	20±5	> 4.0
JSUS-5201-30	3.0	22000~23000	60±5	> 4.5
JSUS-5201-35	3.5	24000~25000	60±5	> 5.0

Thermal PU Adhesive



Features:

Polyurethane system with high strength, good thermal conductivity, and flame retardancy; cures at room or elevated temperatures. Non-toxic, 100% solids, offering strong adhesion and chemical resistance.

Applications:

Ideal for NEV battery packs, high-power electronics, communication equipment, and LED lighting for bonding and thermal management.

Model	Hardness, Shore D	Density, g/cm ³	Tensile Strength, MPa	Elongation	Shear Strength, MPa	Thermal Conductivity, W/m·K	Operating Temp., °C
JSPU-4500A-10AB	55±5	1.87	17	60%	16	1.0	-50 ~ 120
JSPU-4500A-15AB	70±5	1.87	16	15%	10	1.5	-50 ~ 120
JSPU-4500A-20AB	70±10	2.45	14	30%	9.5	2.0	-50 ~ 120



Thank you.

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