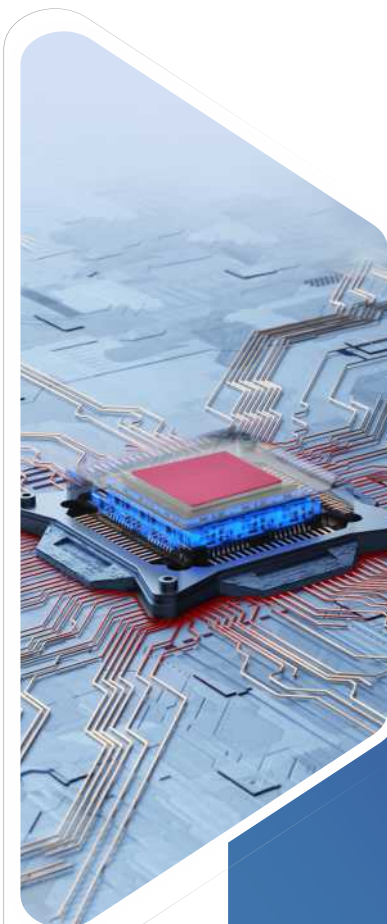




Selection Guide

Thermal Interface Materials

Diversified thermal conductive materials help stabilize equipment performance as before;

Carefully designed to enhance the heat dissipation performance of electronic devices and effectively prevent performance degradation caused by heat accumulation.



Full Range Of Thermal Interface Materials

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Shenzhen Aochuan Technology Co., Ltd.

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ABOUT US

Thermal interface material and thermal solution provider

Focusing on thermal conductive materials for over 20 years, leading the development of the industry!

AOK

Thermal Management Materials Solution Supplier

A

Solution Design

Providing professional thermal management solutions.

B

Customized Development

Developing specialized products based on customer requirements.

C

Quality Assurance

Offering comprehensive product warranty and after-sales service according to product category.



Company Overview

Shenzhen Aochuan Technology Co., Ltd. was founded in 2004 and is one of the domestic pioneers integrating R&D, production, and sales of thermal interface materials and thermal management solutions.

The company's main products include thermally conductive silicone pads, silicone greases, gels, sealants, thermally conductive adhesives, thermal absorption materials, thermal potting compounds, phase change materials, liquid metals, and graphite-based thermal materials. These products are widely used in AI computing, servers, artificial intelligence, energy storage, power supplies, networks, automotive electronics, new energy vehicles, and other fields. AOK holds dozens of patented technologies and serves both domestic and overseas markets.

Company History





Customized Thermal Solution

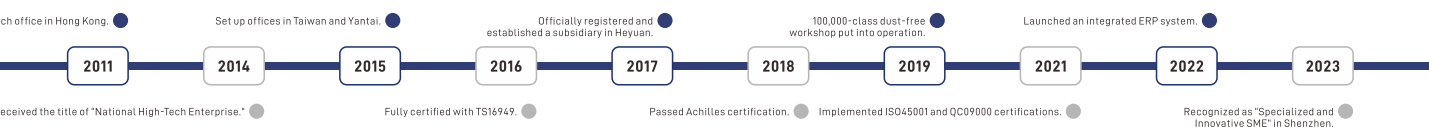


According to customers' specific requirements, we can provide customized thermal management solutions for various industries such as new energy vehicles, household appliances, telecommunications, and AI. We develop tailored solutions to maximize the efficiency of thermal interface materials in each application.

Strong R&D Capability in Thermal Interface Materials



AOK Technology has a professional R&D team with extensive experience in thermal material research and development. We are capable of continuously optimizing and innovating various types of thermal interface products and solutions to meet customer needs.



Classification

Thermal Management Solutions for Electronic Devices

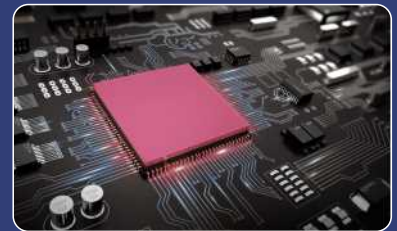
Thermal interface materials (TIMs) are used to fill the microscopic unevenness between two contact surfaces, eliminating air gaps and enhancing heat transfer efficiency. Since the thermal conductivity of these materials is much higher than that of air, the thermal resistance between components is significantly reduced, leading to lower junction temperatures.

Common thermal interface materials include thermal pads, thermal greases, thermal insulation sheets, thermal gels, potting compounds, thermal adhesives, graphite thermal pads, and liquid metals.

Technical Expertise and Patent Strength

Founded in 2004, AOK Technology is one of the domestic pioneers integrating design, R&D, production, and sales of thermal interface materials and thermal management solutions.

Over more than a decade of development, the company has accumulated extensive technical experience and expertise, obtaining multiple patents, with 5–6 new patents granted each year, ensuring independent innovation and intellectual property control.



Thermal Pads

【UTP100】【TP150】【TP200】【TP300】
【TP400】【TP500】【TP600】【TP700】
【TP800】【TP100】【TP1200】【TP1500】



Thermal Conductive Potting Encapsulant

【GF200】【GF200-L】【GF300】【GF400】

**All series of products can be used to fill air gaps
and enhance thermal conductivity**



Liquid Gap Filler

【TF200K】 【TF300K】 【TF350-L】
【TF400】 【TF600】 【TF800】 【TF1000】
【TF1200】



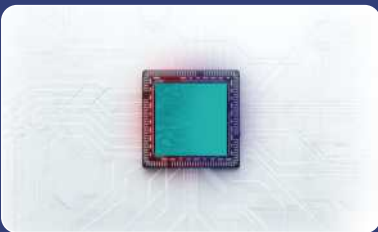
Thermal Putty

【TM200-L】 【TM300-1】 【TM400-1】
【TM500】 【TM600】 【TM800】 【TM1000】
【TM1200】



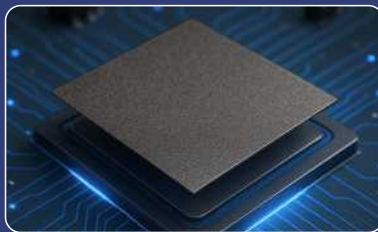
Thermal Grease

【TG200-S】 【TG300】 【TG300-LR】
【TG400】 【TG500】 【TG600】 【TG600-M】



Phase Change Thermal Material

【PCM200】 【PCM300】 【PCM400】
【PCM500】 【PCM600】 【PCM850】



Graphene Thermal Pad

【HGP4】 【HGP6】
【HGP8】 【HGP10】 【HGP12】



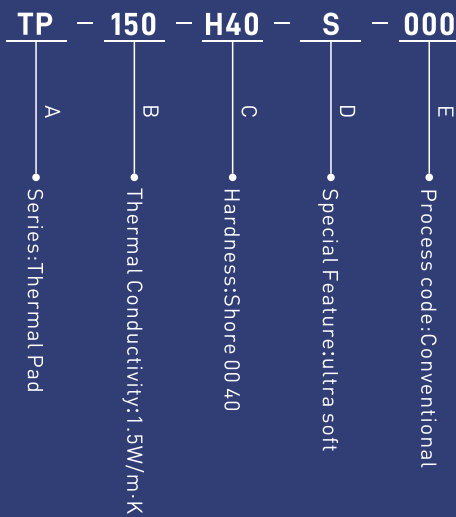
Liquid Metal Grease

【LMG1500】 【LMG4000】 【LMG7000】

Thermal Gap Filler Pad

TP Series High Performance Thermal Pad

Part Number System



Standard size: 200 × 400 mm

Customized cutting into various sizes or shapes is available according to customer requirements.

Thickness increases in 0.25 mm increments.

Product Introduction

Thermal pads are solid interface materials that are soft, elastic, and available in various thicknesses and levels of customization. The main purpose of thermal pads is to reduce the thermal resistance between heat-generating components and heat sinks.

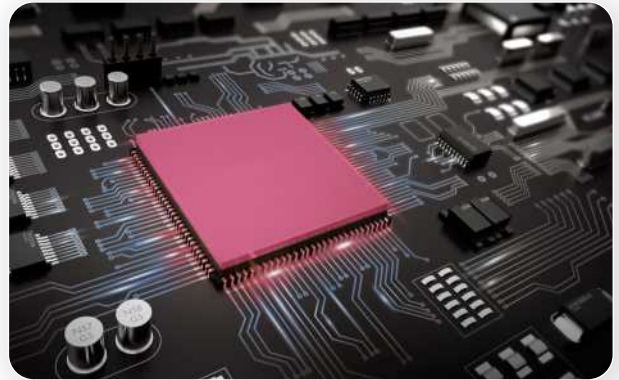
Thermal pads can fill the microscopic gaps between two mating surfaces, displacing air that would otherwise impede heat transfer and increasing the contact area for improved conductivity. Thanks to their softness and compressibility, they can adapt well to uneven surfaces, ensuring effective heat conduction and minimizing temperature rise at the component interface.

Features And Benefits

- Excellent thermal conductivity for efficient heat transfer between heat sources and heat sinks.
- Soft and flexible for easy processing and installation, improving assembly efficiency.
- Outstanding electrical insulation and stability.
- Environmentally friendly, compliant with RoHS and REACH standards.
- Compatible with automated production and rework processes, ensuring stable and reliable thermal performance.

Product Customization (Partial Options)

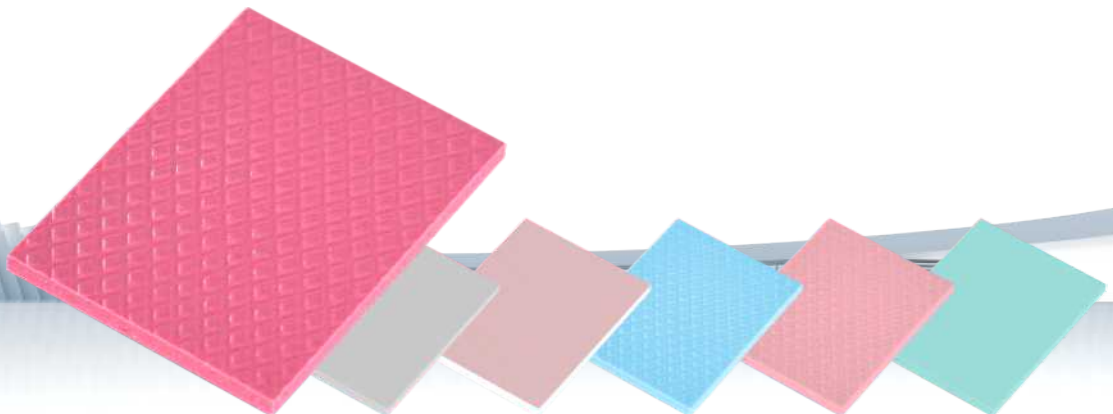
- Single-sided / double-sided adhesive
- Single-sided / double-sided film protection
- Optional fiberglass or PI reinforce
- Easy to process
- Customizable parts / thickness / materials according to customer requirements
- Ultra-high hardness options available
- Solutions for automated assembly



Typical Application

Thermal pads are widely used in communication equipment, automotive electronics, consumer electronics, security, power supply, and IT industries. Examples include:

- Between ICs and heat sinks
- Automotive control units
- Power semiconductor modules
- Hard disk drives
- High-power LED modules
- Communication devices
- High-speed storage and processor drives
- Thermal components



Thermal Gap Filler Pad

TP Series High Performance Thermal Pad

Product Series	UTP100-H30-9	TP150-H40-S	TP200-H35-S	TP300-H30-S	TP400-H40-9	TP500-H40-9	Test Method
Composition	Silicone+Ceramic						/
Color	Maroon+White	Light Gray	Grey	Light Blue	Purple	Green	Visual Inspection
Thickness(mm)	0.5~12.0	1.0~10.0	0.5~12.0	1.0~10.0	1.0~10.0	0.75~6.0	ASTM D374
Density(g/cc)	1.9	2.2	2.3	3.0	3.1	3.3	ASTM D792
Hardness(shore 00)	30	40	35	30	40	40	ASTM D2240
Usage Temperature(°C)	-40~150	-40~150	-40~150	-40~150	-40~150	-40~150	/
Flammability	V-0	V-0	V-0	V-0	V-0	V-0	UL94
Breakdown Voltage(kV/mm)	≥8 (0.5mm)	≥7.0	≥6.0	≥6.0	>6.0	≥5.0	ASTM D149
Volume Resistance (Ω·cm)	≥10 ¹³	10 ¹³	≥10 ¹³	10 ¹³	>10 ¹²	≥10 ¹²	ASTM D257
Dielectric Constance(@1MHz)	5.3@1000Hz	4.11	5.49	7.3@10MHz	7.5	7.1	ASTM D150
Thermal Conductivity(W/m·K)	1.2	1.5	2.0	3.0	4.0	5.0	ISO-22007-02

Product Series	TP600-H40-9	TP700-H50-9	TP800-H60-9	TP1000-H65-9	TP1200-H65-9	TP1500-H40-Q	Test Method
Composition	Silicone+Ceramic						/
Color	Warm red	Light Blue	Visual Inspection	Grey	Grey	Grey	Visual Inspection
Thickness(mm)	1.0~10.0	0.5~10.0	0.5~5.0	0.4~5.0	0.5~5.0	0.5~5.0	ASTM D374
Density(g/cc)	3.3	3.3	3.3	3.5	3.3	3.2	ASTM D792
Hardness(shore 00)	40	50	60	60	65	40	ASTM D2240
Usage Temperature(°C)	-40~150	-40~150	-40~150	-40~150	-40~150	-40~150	/
Flammability	V-0	V-0	V-0	V-0	V-0	V-0	UL94
Breakdown Voltage(kV/mm)	>5.0	>6.0	>6.0	>6.0	>5.0	≥5.0	ASTM D149
Volume Resistance (Ω·cm)	10 ¹²	10 ¹²	10 ¹²	10 ¹¹	10 ¹²	10 ¹²	ASTM D257
Dielectric Constance(@1MHz)	7.9	7.1	7.2	7.0	7.0	7.0	ASTM D150
Thermal Conductivity(W/m·K)	6.0	7.0	8.0	10.0	12.0	15.0	ISO-22007-02

Product Features: To meet the requirements of different applications, we have developed thermal pads with various characteristics and functions. In addition to providing low thermal resistance and high thermal conductivity, these pads also deliver cost-effective performance and easy workability, achieving efficient heat transfer. Certain types of thermal pads can be customized to meet customers' specific thermal management needs.

Silicon Free Thermal Pad

TP***-SF Series

Typical Applications

- Optical modules
- Medical devices
- Hard disk drives
- Optical communication equipment
- High-power engineering equipment
- Automotive sensors and control modules
- Organic silicon-based devices and products



Product Introduction

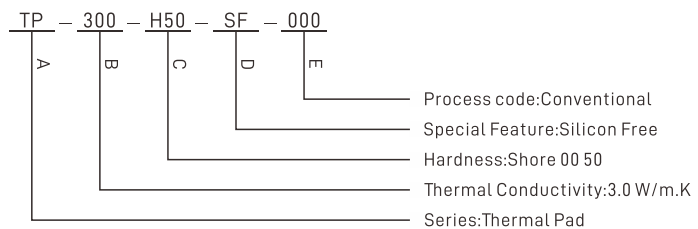
The TPxxx-SF series non-silicone thermal pad is a high-performance, high-strength, and flame-retardant interface material designed specifically for silicone-sensitive applications.

It is developed to provide efficient heat dissipation while maintaining excellent insulation and reliability. Multiple grades are available to meet the requirements of applications such as low compression, multi-layer assembly, vibration resistance, and high-frequency impact conditions.

Features And Benefits

- Thermal conductivity: 2.0–10.0 W/m·K
- Non-silicone system, no silicone oil precipitation or migration
- Good mechanical properties
- Soft texture, easy processing
- Good electrical insulation properties
- High mechanical strength

Part Number System



Standard size: 200 × 400 mm

Customized cutting into various sizes or shapes is available according to customer requirements. Thickness increases in 0.25 mm increments.

Product Series	TP200-H45-SF	TP300-H50-SF	TP400-H60-SF	TP500-H60-SF	TP600-H60-SF	TP1000-H60-SF	Test Method
Composition	Acrylic Resin+Ceramics						/
Color	Green	Blue	Green	Blue	Green	Grayish Green	Visual Inspection
Thickness(mm)	1.0~4.0	0.75~4.0	1.0~4.0	0.5~4.0	0.5~4.0	0.5~3.0	ASTM D374
Density(g/cc)	2.5	3.0	3.0	3.1	3.3	3.3	ASTM D792
Hardness(shore 00)	45~55	50	60	60	60	60	ASTM D2240
Usage Temperature(°C)	-40~125	-40~125	-40~125	-40~125	-40~125	-40~125	/
Flammability	V-0	V-0	V-0	V-0	V-0	V-0	UL94
Breakdown Voltage(kV/mm)	≥6.0	≥6.0	≥6.0	≥6.0	≥6.0	≥6.0	ASTM D149
Volume Resistance (Ω·cm)	1.5*10 ¹¹	5*10 ¹¹	10 ¹¹	10 ¹⁰	10 ¹⁰	10 ¹⁰	ASTM D257
Dielectric Constance(@1MHz)	7.3	10.14	5.7	5.7	7.3	7.0	ASTM D150
Thermal Conductivity(W/m·K)	2.0	3.0	4.0	5.0	6.0	10.0	ISO-22007-02

Thermal Pad

TPxxx-AM Series

Typical Application

- RFID
- Vehicle radar
- Roadside communication products
- Communication equipment
- Optical modules
- Millimeter-wave radar
- Automotive electronics
- 5G base stations



Product Introduction

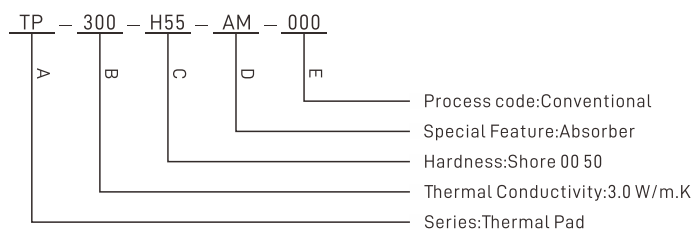
The TPxxx-AM series is a multifunctional composite material that integrates thermal management and electromagnetic wave absorption. It features the elasticity of silicone rubber, excellent mechanical properties, and reliable electrical insulation. It is used between electronic components and heat sinks, providing good thermal conductivity while also reducing unwanted electromagnetic interference (EMI).

This material can effectively absorb and attenuate electromagnetic radiation and noise generated by electronic devices. It is especially suitable for emerging application fields such as millimeter-wave communications and 5G technology.

Features And Benefits

- New integrated structure combining thermal management and absorption functions
- Low thermal resistance
- High thermal conductivity
- Excellent electromagnetic wave absorption performance
- Good mechanical strength and reliability

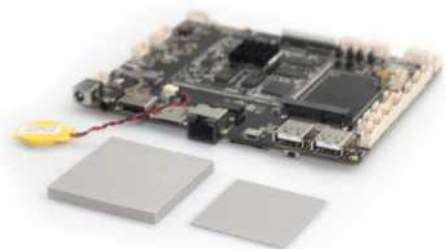
Part Number System



Standard size: 200 × 400 mm

Customized cutting into various sizes or shapes is available according to customer requirements. Thickness increases in 0.25 mm increments.

Product Series	TP150-AM1	TP300-AM1	TP400-AM	TP500-AM	Test Method
Composition	Silicone+Ceramic				/
Color	Grey	Grey	Black	Black	Visual Inspection
Thickness(mm)	0.5~10.0	1.0~10.0	1.0~10.0	1.0~10.0	ASTM D374
Density(g/cc)	4.2	3.8	4.5	4.2	ASTM D792
Hardness(shore 00)	55	55	65	70	ASTM D2240
Usage Temperature(°C)	-40~150	-40~150	-40~150	-40~150	/
Flammability	V-0	V-0	V-0	V-0	UL94
Volume Resistance ($\Omega \cdot \text{cm}$)	/	$>10^{12}$	$\geq 10^{12}$	$\geq 10^{12}$	ASTM D257
Dielectric Constance(@1MHz)	$\leq 20@10\text{MHz}$	$\leq 12@10\text{MHz}$	/	/	ASTM D150
Reflection Rate(dB)	$<-5(2\text{GHz}-6\text{GHz})$	$<-5(2\text{GHz}-6\text{GHz})$	-13(11GHz)	-16(14GHz)	GJB:2038A-2011
Thermal Conductivity (W/m-K)	1.5	3.0	4.0	5.0	ISO-22007-02



Thermal Conductive Insulators

TC/TCK Series

Typical Application

- Power modules
- Optical modules
- Power supply driver modules
- Automotive electronic control modules
- Motor drives
- Power semiconductors



Product Introduction

The TC series thermally conductive insulation sheet is a high-performance elastic insulating material reinforced with fiberglass cloth. The TCK series thermally conductive insulation sheet is a high-performance elastic insulating material based on polyimide (PI) film. Both types feature excellent dielectric strength, outstanding cut-through resistance, and good thermal conductivity, and are widely used in the power electronics industry.

They are placed between heat-generating components and heat sinks to provide both insulation and heat conduction. Customized thickness, color, and materials are available. The material offers a wide variety of specifications and is commonly used in SMT applications.

Features And Benefits

- High thermal conductivity with
- ultra-low thermal resistance
- Strong dielectric barrier
- High-performance thin film with puncture resistance
- Excellent electrical insulation properties
- Flame retardant rating: UL94 V-0
- Easy installation, can be cut into desired shapes
- Compatible with various structures and reusable, effectively reducing manufacturing and application costs

Product	Thickness(mm)	Shipment Specifications	
TC 900S	0.23	300mm×50m, 300mm×100m	TO-220, TO-247, TO-128
TC 1200	0.23	300mm×50m, 300mm×100m	TO-220, TO-247, TO-128
TC 2000	0.25/0.38/0.5	300mm×300m	TO-220, TO-247, TO-128
TC 3000	0.22~0.24	300mm×300m	TO-220, TO-247, TO-128

Product Series	TC900S	TC1500	TC2000	TC3000	TCK10	TCK15B	Test Method
Composition	Silicone + Fiber Glass				Silicone + PI film		/
Color	Pink	Green	White	White	Beige	Grey	Visual Inspection
Thickness(mm)	0.23	0.25	0.25/0.38/0.5	0.25	0.15	0.2	ASTM D374
Density(g/cc)	2.5	2.8	1.5	1.5	2.5	/	ASTM D792
Hardness(shore 00)	85	85	/	/	85	/	ASTM D2240
Tear Strength(N/mm)	>20	≥15	/	/	/	11	ASTM D624
Tensile Strength(MPa)	/	/	>15	>15	≥34	/	ASTM D412
Twisting Force(Kgf/cm)	/	/	/	/	/	220: ≥10 247: ≥20	0.1MPa pneumatic, holding pressure for 30s, curing at 165 °C for 15min, tested at room temperature
Usage Temperature(°C)	-40~150	-40~150	-40~150	-40~150	-40~150	-40~150	/
Flammability	V-0	V-0	V-0	V-0	V-0	V-0	UL94
Breakdown Voltage(kV)	>5.5	≥5.0	>3/4/5	≥3.6	>6.0	>4.0	ASTM D149
Volume Resistance(Ω·cm)	10 ¹⁴	10 ¹³	10 ¹⁴	10 ¹⁴	10 ¹⁴	10 ¹³	ASTM D257
Dielectric Constance@1MHz	/	3.1	2.4	2.4	/	3.0	ASTM D150
Thermal Conductivity(W/m·K)	1.6	2.0	3.5	8.0	1.3	1.5	ISO-22007-02
Thermal Resistance (°C·in ² /W@50psi)	<0.61	≤0.4	<0.24/0.27/0.36	≤0.19	<0.28	≤0.35	ASTM D5470

Two-part Liquid Gap Filler

TF Series

Shipment Specifications

- Package:
 - 50ml(AB each 25ml)
 - 300ml(AB each 300ml)
 - 400ml(AB each 200ml)
 - 20KG(AB each 10KG)
- Shelf Life:
 - 6 Months@ 25°C,50%RH,in Original Package

Product Introduction

The TF thermal gel series is a two-component, addition-cure type silicone gel product.

The material is mixed evenly in a certain ratio and cured on the target surface. During the curing process, it forms a flexible interface layer that wets the surface of the heat-generating component and the heat sink, effectively eliminating air gaps and reducing interface thermal resistance. After curing, the material retains its soft and elastic properties, which help to accommodate the differences in coefficient of thermal expansion (CTE) between components during thermal cycling. This product is mainly used in applications requiring low pressure and thin bond lines, and can be applied through automated dispensing processes. It provides excellent thermal conductivity and electrical insulation while maintaining long-term reliability, making it suitable for continuous operation at -40°C ~ 150°C.

Features And Benefits

- Thermal conductivity range: 2.0, 3.0, 3.5, 4.0, 6.0, 8.0, 10.0, 12.0 W/m·K
- Low modulus two-component gel
- Low thermal resistance
- Adjustable curing time
- Excellent mechanical and chemical stability at low modulus



Typical Applications

- Automotive electronics
- Optical communication equipment
- SSD
- Network devices and modules
- Between power semiconductors and heat sinks
- Between battery packs and cooling plates



Features And Benefits

Ultra-low stress: Minimal stress during assembly

Since the material is in a liquid state during application, it generates almost no stress on the components during assembly. Even for the most fragile and precise devices, it can be safely used as a thermal interface material.

Single solution suitable for multiple applications

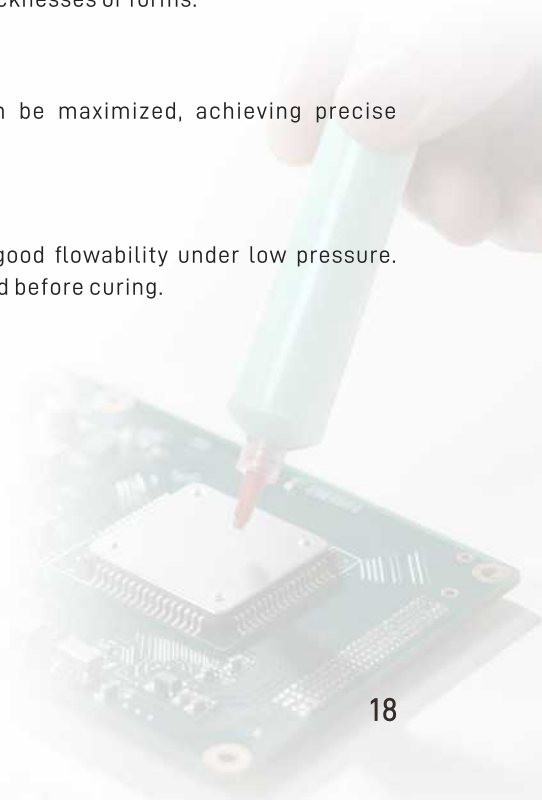
Unlike pre-cured pads or sheets, the liquid material offers flexible thickness adjustment and unrestricted application options. It also eliminates the need for cutting or shaping operations for specific thicknesses or forms.

High material utilization efficiency

By using automated dispensing equipment, the material utilization rate can be maximized, achieving precise application, reducing material waste, and shortening process time.

Balanced viscosity and flow properties

The thermal gel is designed to have minimal internal stress while maintaining good flowability under low pressure. However, its inherent tackiness helps the material stay in place after dispensing and before curing.



Two-part Liquid Gap Filler

TF Series

Product Series	TF200K	TF300	TF350-L	TF400	Test Method
Composition	Silicone+Ceramic				/
Color(AB)	White/Yellow	White/Light Blue	Pink/White	Blue/White	Visual Inspection
Viscosity(cps)	A:280000 B:280000	A:130000 B:130000	A:2500000~4500000 B:2500000~4500000	A:3800000 B:3800000	ASTM D2196
Mix Rate by weight	1:1	1:1	1:1	1:1	/
Working time(H)@25°C	>1	1	0.3~0.5	>2	The viscosity increased to twice the initial viscosity.
Curing Time(H)@25°C	<8	24	<1.1	<24	Adjustable
Density(g/cc)	2.5	3.0	3.2	3.0	ASTM D2196
Cured Hardness(shore 00)	45	50	60	50	ASTM D2240
Usage Temperature(°C)	-40~150	-40~150	-40~150	-40~150	/
Flammability	V-0	V-0	V-0	V-0	UL94
Breakdown Voltage(kV/mm)	>9.0	≥7.0	≥6.0	≥5.0	ASTM D149
Volume Resistance(Ω·cm)	10 ¹²	10 ¹³	10 ¹²	10 ¹²	ASTM D257
Dielectric Constance@1MHz	6.7	7.0	7.0	5.0	ASTM D150
Thermal Conductivity(W/m·K)	≥2.0	3.0	3.5	4.0	ISO-22007-02

Product Series	TF600	TF800	TF1000	TF1200	Test Method
Composition	Silicone+Ceramic				/
Color(AB)	Brick Red/White	Light Green Light Green	Light Green Light Green	Green/Green	Visual Inspection
Viscosity(cps)	/	A:280000 B:200000	/	/	ASTM D2196
Mix Rate by weight	1:1	1:1	1:1	1:1	/
Working time(H)@25°C	≥1	≤1	≤1	≤1	The viscosity increased to twice the initial viscosity.
Curing Time(H)@25°C	<24	<24	<24	≤24	Adjustable
Density(g/cc)	3.3	3.2	3.1	3.1	ASTM D2196
Cured Hardness(shore 00)	60	60	40~70	60	ASTM D2240
Usage Temperature(°C)	-40~150	-60~150	-60~150	-40~150	/
Flammability	V-0	V-0	V-0	V-0	UL94
Breakdown Voltage(kV/mm)	>6.0	>6.0	>6.0	≥5.0	ASTM D149
Volume Resistance(Ω·cm)	>10 ¹²	>10 ¹⁰	>10 ¹⁰	≥10 ¹⁰	ASTM D257
Dielectric Constance@1MHz	7.0	5.0	5.0	/	ASTM D150
Thermal Conductivity(W/m·K)	6.0	8.0	10.0	12.0	ISO-22007-02

One Part Liquid Dispensed Materials

TM Series

Typical Applications

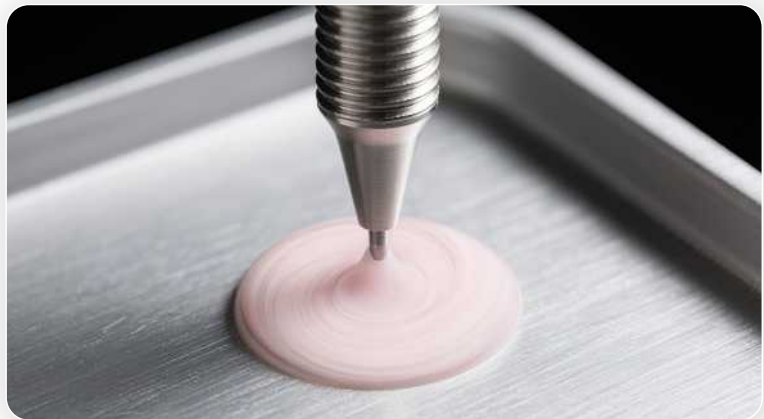
Network communication equipment:

Wireless modules, routers, VOIP phones

IT:Laptops, storage modules, hard drives, scanners, printers

Consumer electronics:Gaming systems, LCD/PDP televisions and displays

Industrial:LED, power supplies, power converters, scanners, industrial control equipment



Product Introduction

The TM series is a type of thermally conductive paste with good spreadability. Different thermal conductivity grades and models can be selected according to customer requirements.

In the application process, the material can be produced into high-performance products suitable for manual or automated dispensing processes based on customer needs. It provides excellent thermal conductivity and outstanding filling properties.

Features And Benefits

- Thermal conductivity: 2.0–15.0 W/(m·K) optional
- High electrical insulation performance
- Low compression stress
- Good temperature resistance
- Extremely low interface thermal resistance
- Suitable for automated dispensing operations

procurement information

ackaging Specifications:

30ml / 50ml / 300ml / 5KG / 20KG

Storage and Transportation Conditions:

Store in a cool, dry, and well-ventilated place.

This product is non-toxic and non-hazardous and can be transported as general chemicals.

Shelf Life:

After opening, the storage shelf life of this product is 6 months.

Product Series	TM200-L	TM300-1	TM400-1	TM500	TM600	TM800	TM1000	TM1200	TM1500	Visual Inspection
Composition	Silicone+Ceramic									/
Composition	White	Blue	Blue	Red	Tangerine Orange	Pink	Grey	Grey	Light Green	Visual Inspection
Density(g/cc)	2.8	2.9	3.4	3.3	3.4	3.3	3.3	3.3	3.2	ASTM D792
Flow Rate(g/min)	>6	1.5~3.5	1~3	4~8.5	3~4	3~5	≥2	≥2	≥2	ISO 9048
Usage Temperature(°C)	-40~150	-40~150	-40~150	-40~150	-40~150	-40~150	-40~150	-40~150	-40~150	/
Flammability	V-0	V-0	V-0	V-0	V-0	V-0	V-0	V-0	V-0	UL94
Breakdown Voltage(kV/mm)	>5.0	>5.0	/	>5.0	≥4.5	>5.0	≥5.0	≥5.0	≥5.0	ASTM D149
Thermal Conductivity (W/m-K)	2.0	3.0	≥4.0	5.0	6.0	8.0	10.0	12.0	15.0	ISO-22007-02
Thermal Resistance (°C·in ² /W@50psi)	<0.56	<0.31	≤0.05	≤0.06	≤0.06	≤0.06	/	/	≤0.5 (40psi)	ASTM D5470

Thermal Grease

TG Series

Typical Applications

Network communication equipment:

Wireless modules, routers, VOIP phones

IT:Laptops, servers, power supplies, storage modules

Consumer electronics:Gaming systems, portable devices

Industrial:Power supplies, LED lighting, industrial control equipment



Product Introduction

The TG series thermal grease is a high-efficiency thermal interface material that effectively reduces the thermal interface resistance between heat-generating components and heat sinks.

It is suitable for applications requiring low bond line thickness, providing optimal performance even under low pressure or screen-printing processes.

AOK's high-performance thermal grease is designed to ensure maximum reliability across a wide range of consumer and industrial applications.

Features And Benefits

- Thermal conductivity: 1.0–6.0 W/(m·K) optional
- Low oil separation ($\leq 0\%$)
- Long-term stability
- Excellent surface wettability, effectively reduces interface thermal resistance
- Strong durability (resistant to high/low temperatures and aging)

procurement information

Packaging Specifications:

30ml PE tubes / 1KG can / 2KG can / 10KG can

Storage and Transportation Conditions:

Store in a cool, dry, and well-ventilated place.

This product is non-toxic and non-hazardous, and can be transported as general chemicals.

Shelf Life:

6 months under proper storage conditions.

Composition	TG100	TG200-S	TG300	TG300-LR	TG400	TG500	TG600	TG600-M	TG1500	Test Method
Composition	Unvulcanized silicone oil and thermally conductive filler mixture									/
Color	White	White	Grey	White	Grey	Grey	White	Grey	Grey	Visual Inspection
Density(g/cc)	2.7	2.8	3.2	3.2	3.3	3.3	3.2	2.6	6.1	ASTM D792
Volatile Matter(%)	≤1.0	≤1.0	≤0.5	≤0.5	<0.5	<0.5	≤0.5	≤0.5	<0.1	150°C, 24H
Penetration (25°C, 0.1mm)	250	340	260	326	260	260	266	253	/	GB/T269
Usage Temperature(°C)	-40~150	-40~150	-40~150	-40~150	-40~150	-40~150	-40~150	-40~150	-40~150	/
Breakdown Voltage(kV/mm)	≥4.0	≥4.0	≥5.0	≥5.0	≥5.0	≥5.0	≥5.0	/	/	ASTM D149
Thermal Conductivity(W/m·K)	1.0	2.0	3.0	3.0	4.0	6.4	6.0	6.0	15	ISO-22007-02
Thermal Resistance (°C·in ² /W@50psi)	≤0.15	≤0.06	≤0.015	≤0.006	≤0.009 (40psi)	≤0.009 (40psi)	≤0.017 (40psi)	≤0.008 (40psi)	0.003 (20psi)	ASTM D5470



Two-Part Thermally Conductive Potting Encapsulate GF Series

Typical Applications

Automotive Electronics:

OBC, DC-DC converters, sensors, inverters, amplifiers

Industrial:

LED lighting, power converters, transformers, power supplies, high-voltage electrical equipment



Product Introduction

The GF series thermally conductive potting material is a two-component system.

After the A/B components are mixed in a certain ratio, the material cures into a soft and elastic solid.

Once cured, it provides excellent protection against moisture, dust, flame, and vibration, along with good sealing, adhesion, and thermal conductivity. It is suitable for heat dissipation and insulation of power electronic components.

Features And Benefits

- Thermal conductivity: 0.6–3.6 W/(m·K) optional
- High electrical insulation
- Adjustable working time
- Compliant with UL94 V-0 flame retardant standard
- Good fluidity and heat dissipation performance
- Suitable for automated dispensing processes

procurement information

Packaging Specifications:

1KG kit / 5KG kit / 20KG kit

Storage and Transportation Conditions:

Store in a cool, dry, and well-ventilated place.

This product is non-toxic and non-hazardous and can be transported as general chemicals.

Shelf Life:

6 months under proper storage conditions.

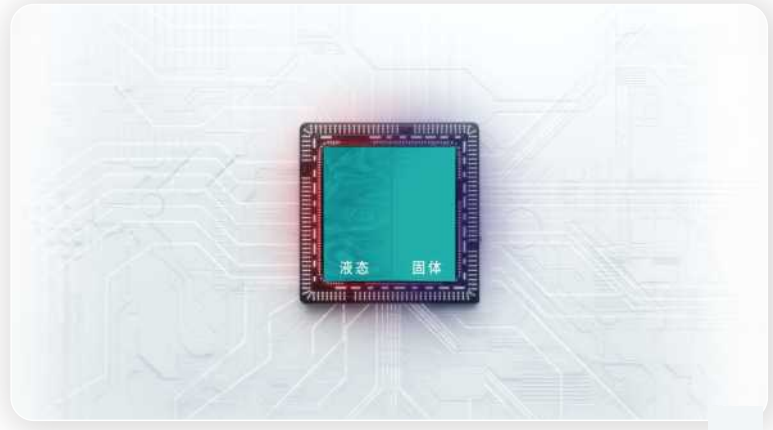
Product Series	GF200	GF200-L	GF300	GF400	Test Method
Composition	Silicone+Ceramic				/
Color(AB)	Pink/White	Pink/White	White/Blue	White/Yellow	Visual Inspection
Viscosity(cps)	A:6000 B:6000	A:6000 B:6000	A:11000 B:11000	A:15000 B:15000	ASTM D2196
Mix Rate by weight	1:1	1:1	1:1	1:1	/
Working time(H)@25°C	1.5~2.0	1.0~1.5	1.0~2.0	>1.0	The viscosity increased to twice the initial viscosity.
Density(g/cc)	2.5	2.5	3.0	3.1	ASTM D2196
Cured Hardness(shore 00)	50	50	60	60	ASTM D2240
Usage Temperature(°C)	-40~150	-40~150	-40~150	-40~150	/
Flammability	V-0	V-0	V-0	V-0	UL94
Breakdown Voltage(kV/mm)	≥7.0	>7.0	>7.0	>7.0	ASTM D149
Volume Resistance(Ω·cm)	≥10 ¹¹	>10 ¹¹	10 ¹³	>10 ¹³	ASTM D257
Dielectric Constance@1MHz	6.0	6.0	6.7	6.7	ASTM D150
Thermal Conductivity(W/m·K)	2.0	2.0	3.0	4.0	ISO-22007-02
coefficient of thermal expansion(ppm@-40~150°C)	120	120	80	50	ASTM D5470

Phase Change Thermal Material

PCM Series

Typical Applications

- communication equipment
- Computers
- LED
- Power converters



Product Introduction

The PCMxxx series is a high-performance phase change thermal interface material. Its phase change temperature is around 50–65°C. When the PCM material reaches its phase change temperature, it transitions from a solid to a viscous semi-liquid state, which allows it to effectively fill surface gaps and reduce thermal resistance.

It offers excellent thermal conductivity and stability. According to customer requirements, it can be customized into various shapes and sizes to meet different application needs. When applied between heat-generating components and heat sinks, it can significantly reduce interface thermal resistance and achieve excellent thermal performance.

Features And Benefits

- Thermal conductivity: 2.0–8.5 W/(m·K)
- Low thermal resistance
- Excellent thermal stability
- Reusable

procurement information

Standard size:

200 × 400 mm; customized cutting into various shapes and sizes according to customer requirements is available.

Thickness increases:

In 0.25 mm increments.

Product Series	PCM200	PCM300	PCM400	PCM500	PCM600	PCM850	Test Method
Composition	Phase change wax+Ceramic						/
Color	White	White/Grey	White	Grey	Grey	Grey	Visual Inspection
Thickness(mm)	0.25~1.0	0.25~1.0	0.25~1.0	0.25~1.0	0.25~1.0	0.25~1.0	ASTM D374
Density(g/cc)	2.4	2.9	3.2	2.4	2.7	2.4	ASTM D792
phase transition temperature(°C)	55-65	55-65	55-65	50-60	50-60	50-60	/
Usage Temperature(°C)	-40~125	-40~125	-40~125	-40~125	-40~125	-40~125	/
shelf life(month)	12	12	12	12	12	12	Temperature <40 °C, avoid squeezing and sun exposure
Breakdown Voltage(kV/mm)	≥8.0	≥8.0	≥8.0	≥3.0	≥3.0	≥8.0	ASTM D149
Thermal Resistance (°C·cm²/W @50psi/0.3mm)	≤0.53	≤0.22	≤0.19	≤0.15	≤0.1	≤0.05	ASTM D5470
Thermal Conductivity(W/m·K)	2.0	3.0	4.0	5.0	6.0	8.5	ASTM D5470

The PCM series features high thermal conductivity, low thermal resistance, and excellent reliability!



Liquid Metal Grease

LMG Series

Typical Applications

Network communication equipment:

Wireless modules, routers

IT:Laptops, servers, power supplies, storage modules

Consumer electronics:Gaming systems, multimedia devices

Industrial:Power supplies, LED lighting, industrial control equipment



Product Introduction

Liquid metal is a thermal interface material based on metallic alloys. It has excellent thermal conductivity and fluidity, effectively reducing thermal interface resistance between heat-generating components and heat sinks. It is suitable for applications that require a certain bond line thickness, stable pressure, and optimal thermal performance under screen printing or dispensing processes.

Features And Benefits

- High thermal conductivity and low thermal resistance
- Stable and reliable performance
- Low volatilization and long lifespan
- Non-curing, easy to apply

procurement information

Storage and Transportation Conditions:

Store and transport under normal temperature conditions; keep sealed and stored in a dry, cool place.

Shelf Life:

6 months from the date of packaging (if unopened and stored properly).

Product Series	LMG1500	LMG4000	LMG7000	Test Method
Composition	Gallium based alloy+Ceramic			/
Color	Silvery	Silvery	Silvery	ASTM D374
Is it insulated	NO	NO	NO	N/A
Density(g/cc)	5.5	5.2	5.1	ASTM D792
Viscosity(pa-s)	800	1000	1200	GB/T10247-2008
Volatile Matter(%)	<0.1	<0.1	<0.1	125°C,48h
Usage Temperature(°C)	-40~150	-40~150	-40~150	/
shelf life(month)	6	6	6	Avoid squeezing and exposure to sunlight, seal and store
Thermal Conductivity(W/m·K)	15	40	70	ASTM D5470
Thermal Resistance (°C·cm²/W@50psi)	≤0.015	≤0.012	≤0.01	ASTM D5470

Instructions for Use and Precautions:

Before use, ensure that the surfaces of the heat source and the heat sink are clean, dry, and free of any residue.

Since liquid metal has excellent electrical conductivity, avoid direct contact with circuit boards or other electrical components to prevent short circuits.

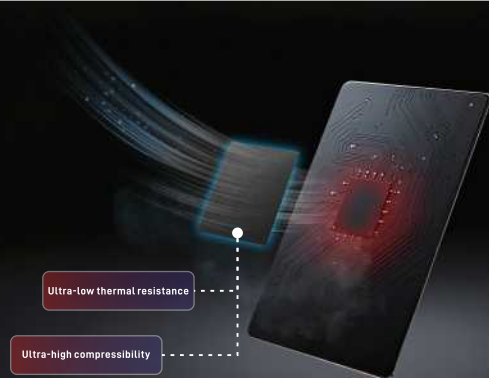
Liquid metal easily reacts with certain metals to form alloys; avoid direct contact with untreated aluminum, copper, or other metals.

If the product has been stored or transported at a low temperature, it is recommended to warm it to at least 25 °C and stir evenly before use.

Graphene Thermal Pad

HGP Series

The **HGP series** is an extremely flexible graphite pad featuring ultra-low thermal resistance, high thermal conductivity, easy installation, and excellent elasticity.



Product Introduction

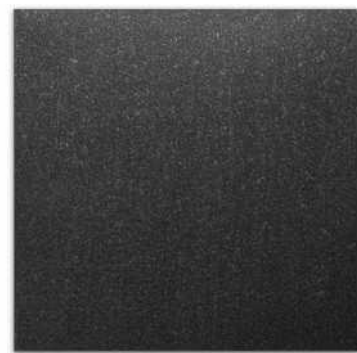
The HGP series is a thermally conductive gap-filling material designed with the goal of achieving "high directional heat conduction."

It enables direct heat transfer from the heat source to the heat dissipation structure, with an in-plane thermal conductivity up to $130 \text{ W/(m}\cdot\text{K)}$ and a thermal resistance as low as $0.04 \text{ }^{\circ}\text{C}\cdot\text{cm}^2/\text{W}$.

It establishes a direct "thermal path" between the heat source and the heat sink, quickly reducing thermal interface resistance under limited compression, thereby efficiently transferring heat from the source to the heat dissipation component.

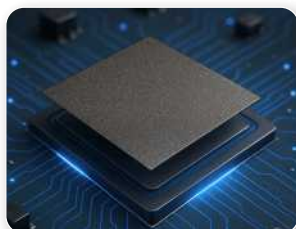
Features And Benefits

- Extremely high thermal conductivity / ultra-low thermal resistance
- Excellent elasticity with low compression force
- Supports ultra-thin designs
- No oil leakage or volatilization
- Excellent aging and oxidation resistance, suitable for various working environments and reusable
- Simple processing, suitable for automated production and easy rework



Model	HGP12	HGP10	HGP8	HGP6	HGP4	Test Method
Color	Grayish Black	Grayish Black	Grayish Black	Grayish Black	Grayish Black	Visual Inspection
Thickness(mm)	0.3±10%	0.3±10%	0.3±10%	0.3±10%	0.3±10%	ASTM D374
Density(g/cc)	<0.95	<0.95	<0.95	<0.95	<0.95	ASTM D792
Usage Temperature(°C)	-40~150	-40~150	-40~150	-40~150	-40~150	IEC 60068-2-14
Resilience(%)	≥60	≥60	≥60	≥60	≥60	ASTM D575
Tensile Strength(MPa)	≥0.025	≥0.025	≥0.025	≥0.025	≥0.025	ASTM D412
Thermal Resistance (°C·cm²/W@40psi)	≤0.12	≤0.10	≤0.08	≤0.06	≤0.04	ASTM D5470
Standard sheet material(mm)	60*60	60*60	60*60	60*60	60*60	ASTM D5946
Thermal Conductivity (W/m·K)	70	90	110	130	150	Reference Value
Note: Maximum size: 120 × 120 mm Edge wrapping and adhesive are available						

Typical Applications



GPU/CPU



Servers



Optical modules



Intelligent driving systems

Q&A

Common Questions About Thermal Interface Materials

Why Use Thermal Interface Materials (TIMs)?

Thermal interface materials can fill the microscopic gaps between heat-generating components (such as chips) and heat sinks, eliminating air pockets between the two contact surfaces. Since the thermal conductivity of these materials is much higher than that of air, they can significantly reduce the thermal resistance at the interface, thereby lowering the temperature at the contact point of the components.

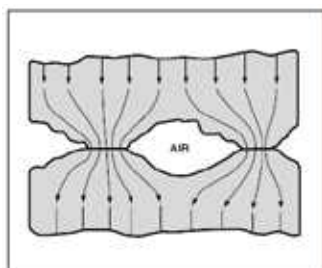


Figure 1a: Schematic representation of two surfaces in contact and heat flow across the interface.

Picture one: Heat transfer path between two surfaces without an interface material.

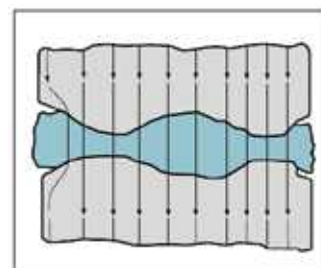


Figure 1b: Interface material compressed between two contacting surfaces.

Picture two: Heat transfer path between two surfaces filled with an interface material.

What are the common types of thermal interface materials?

Common thermal interface materials include thermal pads, thermal grease, thermal insulation sheets, thermal gel, thermal potting compounds, thermal adhesives, graphite pads, phase change materials, and liquid metals.

What testing standard does your company use for thermal conductivity?

Our company currently follows the ISO 22007-2 standard.

What does “self-adhesive property” of your thermal pad mean?

Our thermal pads utilize the natural tackiness of silicone rubber, which makes assembly and installation easier.

Compared with products that require adhesive backing, this property helps achieve stable positioning and effectively reduces the risk of tearing during rework.

What is the lifespan of your thermal pads?

Our thermal pads are made primarily of silicone or silicone rubber. Theoretically, the material's service life can reach more than 20 years. However, the actual service life depends on the specific application environment. If stored under proper conditions without exposure to external stress, the service life of our thermal pads is generally at least 10 years.

Can your silicone pads be coated with adhesive or backing?

Yes, our standard products can be made with adhesive coating or backing.

Can your silicone pads be reused?

To ensure the stability of thermal performance, we generally do not recommend reusing thermal pads. Once removed, the pad's shape may change, and its surface may be damaged, which could affect heat transfer performance and long-term reliability. If reuse is necessary, please evaluate the specific situation based on actual conditions and verify performance through testing.

Can your thermal gels be reworked?

Thermal gels are generally reworkable. The feasibility of rework mainly depends on the application area and the size of the applied pattern.

How should thermal gel be stored?

To ensure optimal performance, the following storage method is recommended: Unopened two-component thermal gel should be stored in a cool, dry, and well-ventilated place (recommended conditions: <25°C, 50%RH). For short-term storage after opening, keep the original packaging sealed, cap the syringe or cartridge tightly, and store vertically.

Will your thermal materials volatilize or degrade under heat?

Our thermal materials undergo special treatment and dual thermal curing during production, effectively preventing decomposition and volatilization of components under high temperatures.

Do your thermal materials contain heavy metals or harmful substances?

All our thermal materials are tested and certified by third-party laboratories. They fully comply with EU RoHS and REACH regulations and do not contain any restricted heavy metals or harmful substances.

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Company official website



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