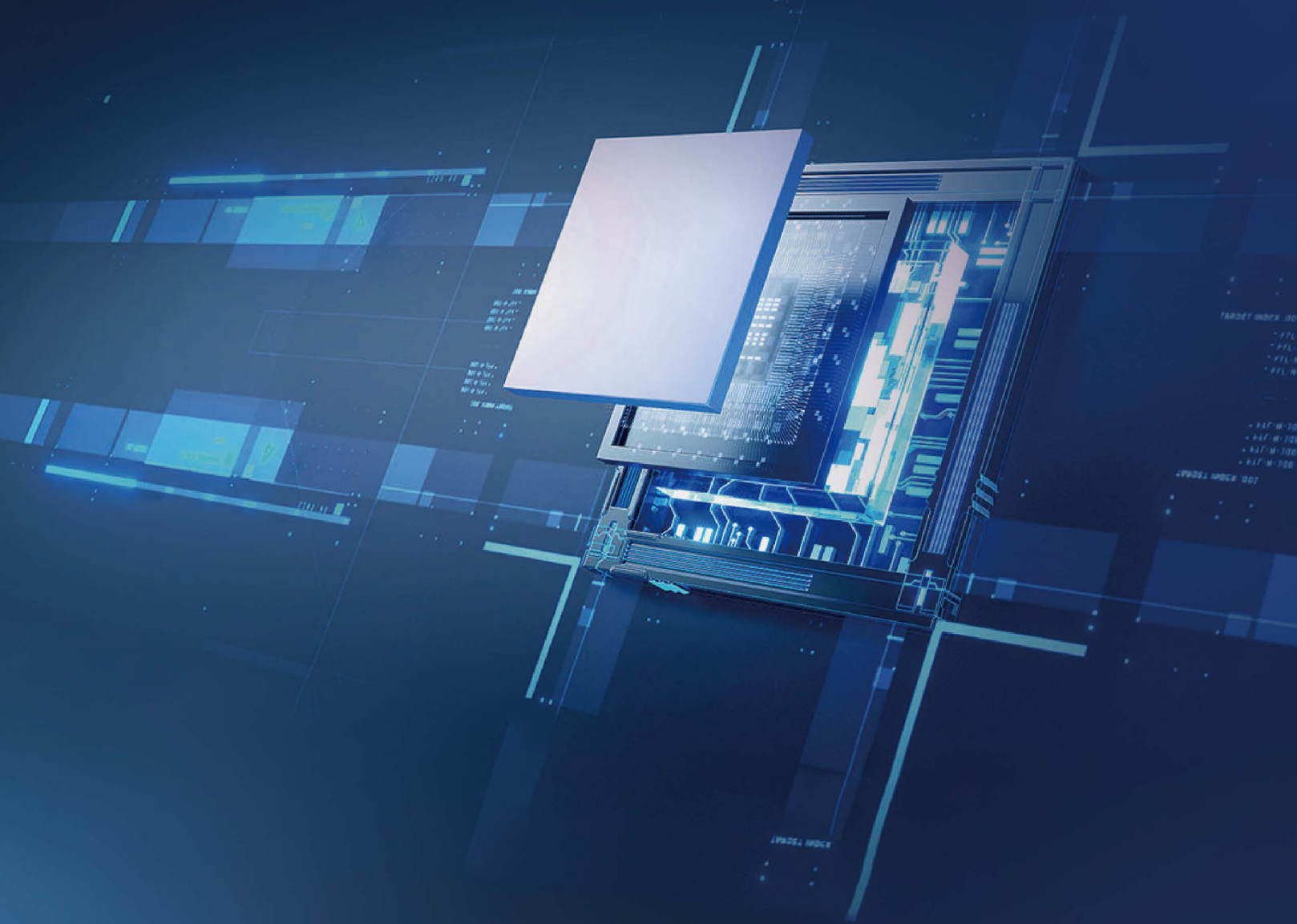
T-Global



PRODUCT CATALOG

All heat dissipation starts from heat conduction and transfer.

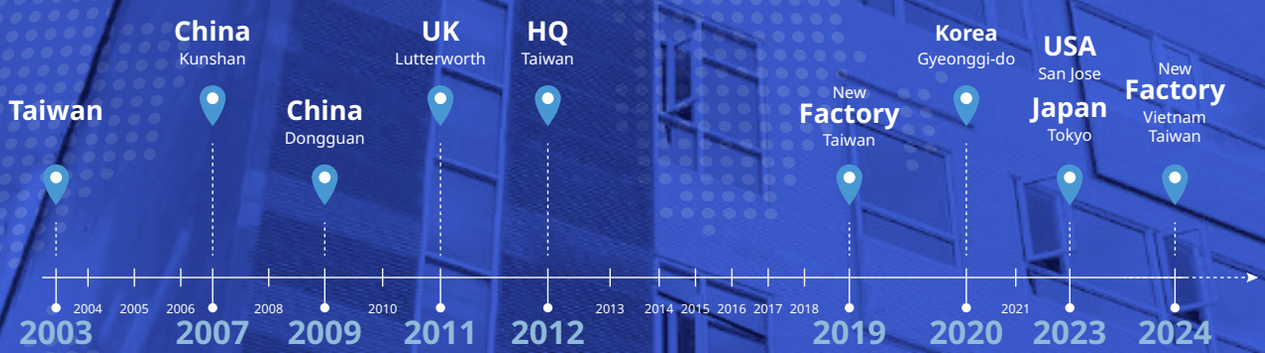
Milestone

- **2024** New Factory in Hanoi Vietnam
- **2024** New Factory in Taoyuan Taiwan
- **2023** Japan & USA Branch
- **2022** Golden Ship (ESG Group) Award
- **2020** IATF 16949 Certification
- **2020** South Korea Office
- **2016** B Corp Certification
- **2013** ISO14000 Certification
- **2011** UK Branch
- **2009** China Office (Dongguan)
- **2008** IECQ QC08000 Certification
- **2007** China Office (Kunshan)
- **2005** ISO9001 Certification
- **2003** Taiwan Headquarters

Contents

T-Global Established in 2003

We are dedicated to the development of thermal conduction and dissipation technologies, providing comprehensive heat management solutions and designs to meet customer demands. Whether it's for existing products or emerging technologies, T-Global Technology will find the best solution for you.



ONLINE SHOP

Amazon | Digi-Key | eBay | Newegg | SCiKET

Fast Lead Times | Sample delivered **within 3 days**, production lead time of **15 days**, response to enquiries **within 24 hours** on business days.

Customized Production | **No MOQ** restriction, No limits on initial testing.

Professional Consulting | Designs based on individual requirements to provide the **best thermal solution** for you.

Stay Cool. Bridge Innovation.

70+

Provide dozens of thermal engineering products

1K+

Thousands of custom project designs completed

3.5K+

Chosen by thousands of companies worldwide

100M+

Millions of thermal products produced

Electric Vehicles

#Battery Modules #IGBT
#Charging Stations #Power Converters
#Autonomous Driving Systems

In the electric vehicle industry, both the battery and motor generate a significant amount of heat during operation. If the heat is not efficiently dissipated from the vehicle overheating will occur and can result in reduced performance, shortened lifespan, and potential safety issues. Therefore, the thermal management system plays a crucial role in both the performance and lifespan of electric vehicles.

Recommended materials

Thermal Pad

Thermal Putty

Potting Compound

Netcoms

#Smart Manufacturing #Smart Cities
#Connected Cars #Massive IoT
#Immersive Interactive Entertainment

As processing speeds and power consumption continues to increase in networked application devices, heat dissipation is becoming a significant technological bottleneck. Achieving optimal transmission efficiency, meeting high reliability, low-cost requirements, and addressing various needs through proper design of heat dissipation components are now crucial challenges in thermal engineering.

Recommended materials

Thermal Pad

Thermal Putty

Heat Sink

Servers

#Computer Servers #Cloud Computing
#Edge Computing #Data Centers
#Super Computers #Big Data

In server applications, there is a focus on 1U and 2U water cooling and air cooling technologies, each with their own advantages, disadvantages and adaptability. The design principles vary based on server specifications, deployment environments, and computational loads. By adopting more reliable, high thermal conductivity materials, servers can effectively handle different power densities in high-performance computing.

Recommended materials

Thermal Pad

Vapor Chamber

Heat Sink

Electronic Devices

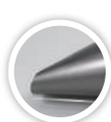
#Gaming Monitors #Gaming Computers
#SSDs #Laptops #Industrial Computers
#Wafer Equipment

Thermal management technology is a critical factor in product performance. As product sizes are reduced, the space for heat dissipation is restricted. Additionally, with advancements in material processing techniques, the ability to accommodate more transistors per unit area has increased to handle massive amounts of data. To cope with higher total power consumption whilst maintaining product reliability and lifespan, better thermal conduction and dissipation technologies are needed.

Recommended materials

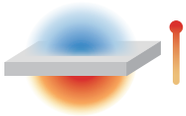
Thermal Pad

Thermal Grease



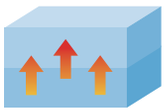
Graphite Sheet

Which product is most suitable for you?



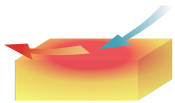
Temperature Control

Precisely controlling temperature to achieve the purpose of refrigeration.



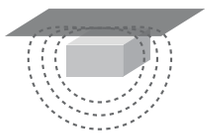
Heat Conduction

Reduces contact thermal resistance between the heat source and the heat dissipation interface.



Heat Dissipation

Actively or passively transferring heat energy to the atmosphere.



Electro Magnetic Interference

Absorbing specific frequency band electromagnetic waves to suppress electromagnetic interference.

Thermoelectric Cooling Chip

Active cooling components are capable of precise temperature control.

Heat Pipe

High-performance thermally conductive devices that efficiently transfer heat from a localized heat source to a heat sink.

Vapor Chamber

High-performance thermal/heat dissipation device to efficiently transfer heat from a localized heat source over a larger area.

Thermal Interface Material

Reducing the contact thermal resistance between the heat source and heat dissipation components by maximizing the contact area.

Heat Sink

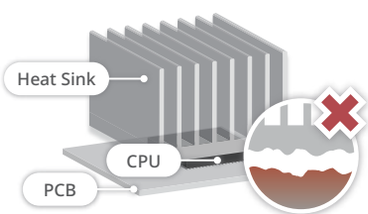
Attaches to the surface of heat-generating components, it is currently the most common heat dissipation product.

Fan

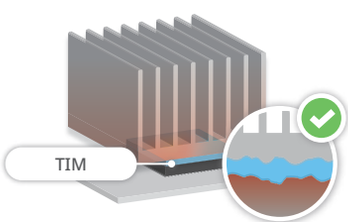
Active heat dissipation components that facilitate forced air convection.

Flexible Absorbent Material

Effectively suppresses electromagnetic interference.



Heat flows **slowly** without Thermal Interface Materials.



Heat flows **quickly** with Thermal Interface Materials.

When using a thermal interface material to connect two interfaces, the heat transfer speed is faster and more evenly distributed, resulting in improved heat dissipation efficiency.

Z Axis Heat Conduction

Sheet

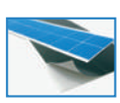
Thermal Pad — High Thermal Conductivity

High thermal conductivity
High compressibility and compliancy

1.5-25 W/m · K

Thermal Tape — High Viscosity

Good adhesive
Electrical insulation



High Electrical Insulation

Grease

Thermal Grease — Low Thermal Impedance

Good leveling agent
No overflow

Thermal Putty — High Viscosity

Physical property between liquid and solid state

Potting Compound — Mature Curing

Protect components with high hardness for support

Special Shape

Phase Change Materials — Rapid Cooling

Good flow ability over phase change temperature, surface irregularities can be well filled

Thermal Insulation Rubber Cap — Insulation

Low thermal contact resistance and buffer effect

Often applied to products operating over a wide range of temperatures

XY Axis Heat Conduction

Graphite Material

- Lightweight — Graphite Sheet — Ultra high thermal conductivity,electrical conductivity and EMI shielding effect
- Copper — Graphene — Available for unventilated design / Low mass

Often used in heat dissipation for smart phones

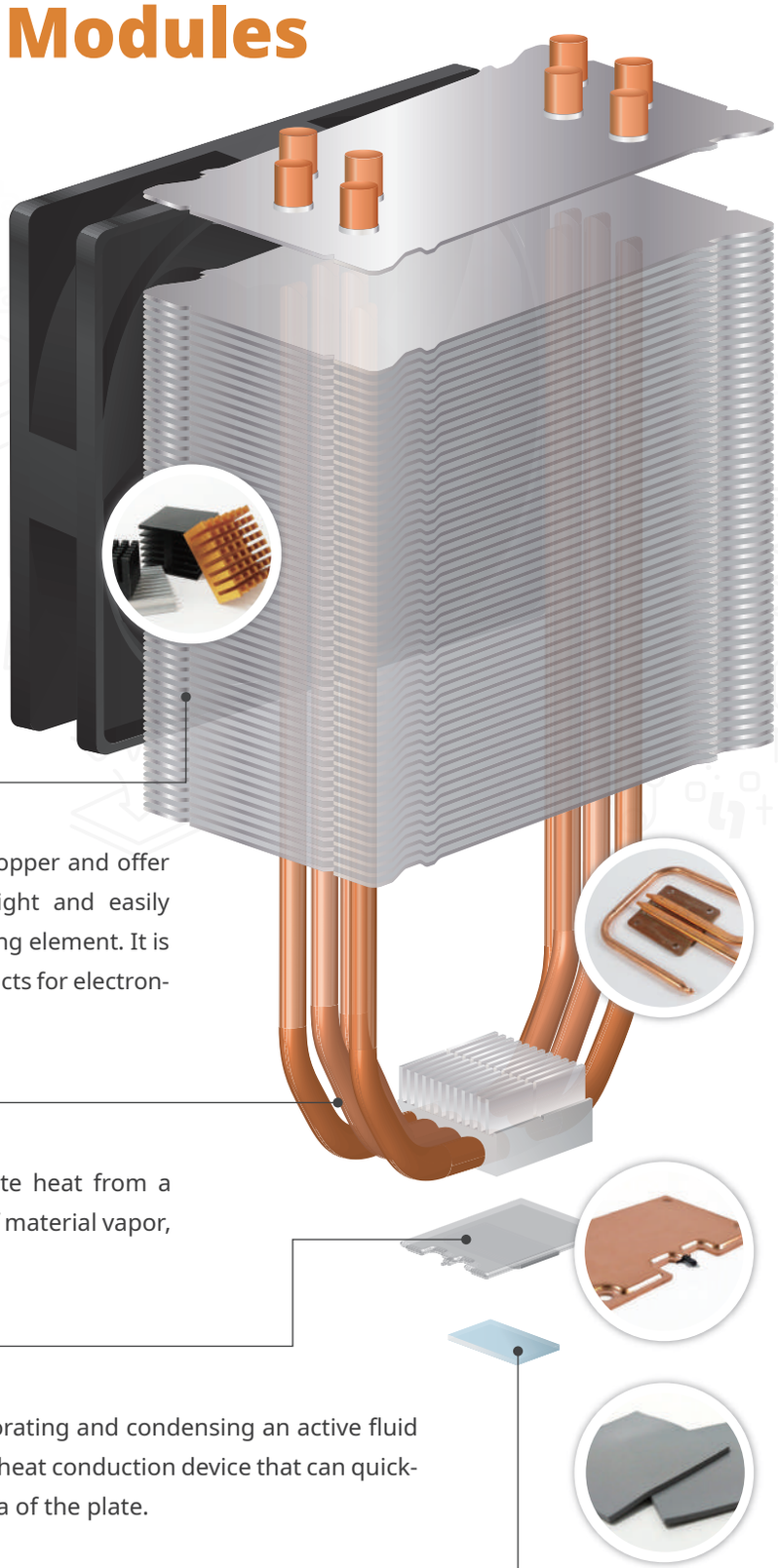
Custom Integrated Solutions

Heat Dissipation Modules

Heat dissipation modules are composed of two elements: heat conduction and heat dissipation components. Both are critical for efficient heat transfer. They effectively conduct heat to a specific area, and then dissipate the heat through the heat sink to the environment using the principle of convection.

Applications

Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacoms, Electric Vehicles, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical Devices, Military, Netcoms, Panels, Power Electronics, Robots, Servers, Smart Homes, Telecoms, etc.



Heat Sink

Metal heat sinks are mostly made from aluminum or copper and offer good thermal conductivity as well as being lightweight and easily processed. They can be applied to the surface of a heating element. It is currently one of the most popular heat dissipation products for electronic module cooling solutions.

Heat Pipe

A heat pipe is a component that can quickly dissipate heat from a single source byusing the two-phase change process of material vapor, liquid and convection principle design.

Vapor Chamber

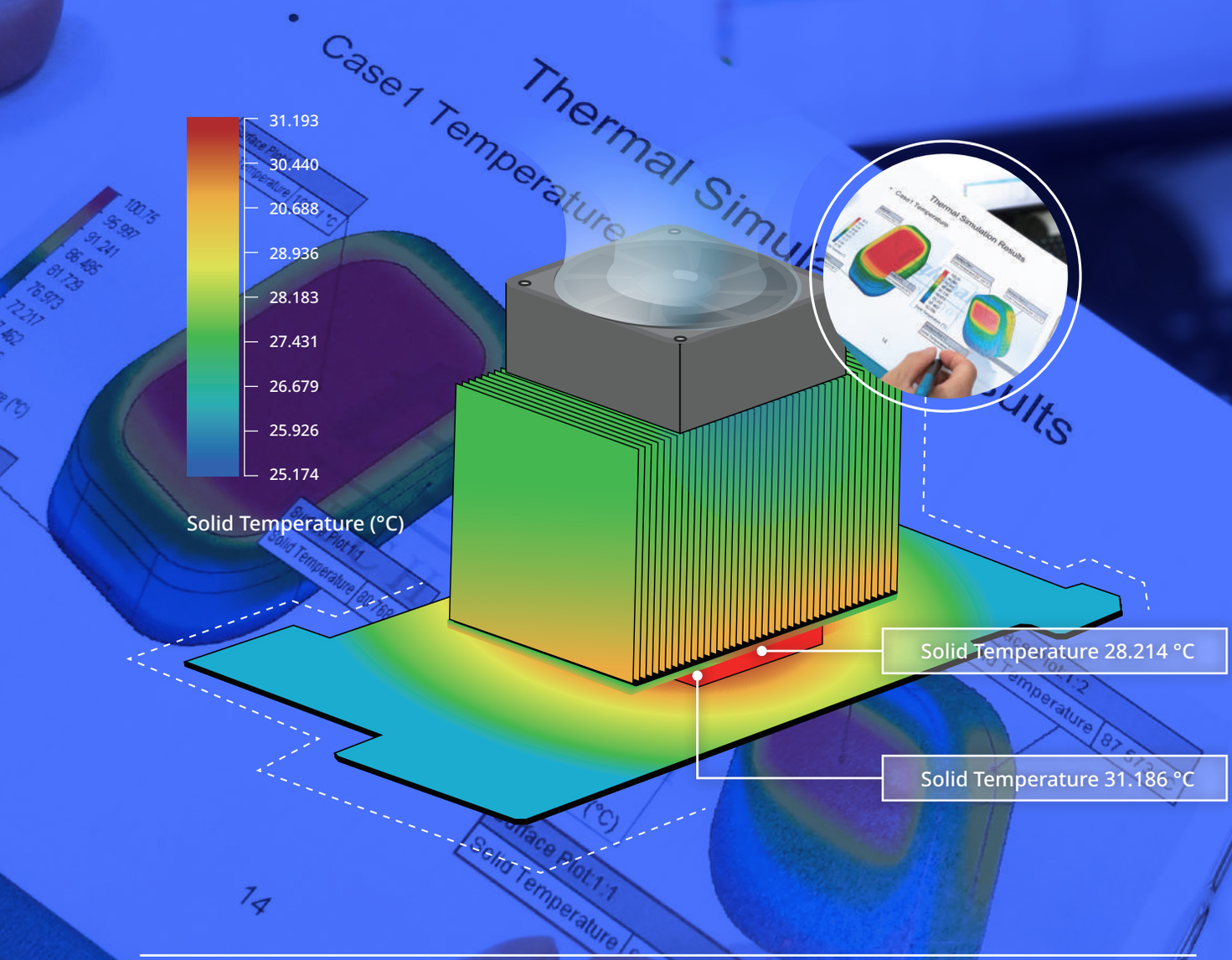
A vapor chamber operates in a cyclic manner by evaporating and condensing an active fluid sealed in a plate-like chamber. It is a high performance heat conduction device that can quickly transfer the heat from the heat source to a large area of the plate.

Thermal Interface Material

Thermal interface materials are generally used in all heat dissipation modules to fill the gaps and uneven voids on the surface of the electronic components, without the application of thermal interface materials heat transfer would be considerably impacted.

THERMAL SIMULATION SERVICE

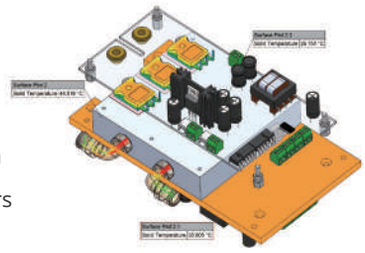
T-Global Technology have the best thermal simulation software alongside a team of expert thermal engineers to provide customers with preliminary thermal simulation planning and institutional thermal design consulting.

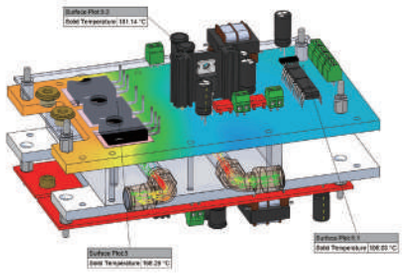


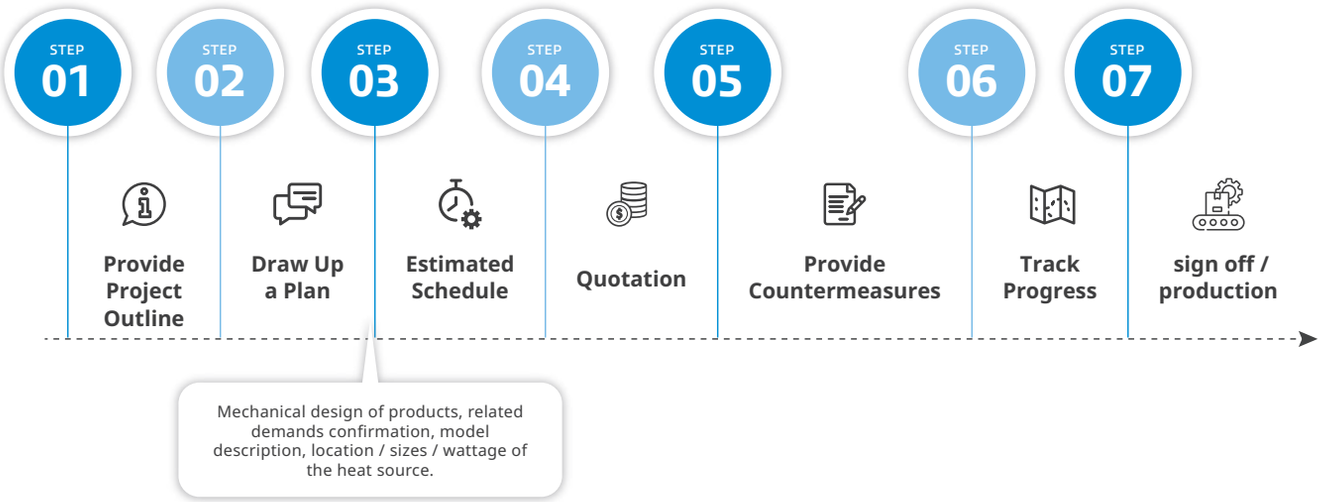
T-Global provides a complete service, starting with product development, we can assist you with thermal management solutions immediately. T-Global uses the industry-leading FloTHERM XT heat flow simulation software and FloTHERM and FloEFD unique grid technology for simulation planning in all product development. FloTHERM XT makes it easy to analyze the design of any complex application environment. Professional thermal engineers are available throughout the process to provide advice and support for thermal solutions and to define thermal component specifications.

Project Process

T-Global Technology have the best thermal simulation software and a team of professional thermal engineers to provide expert advice for all projects.







Q：Is there a solution to the problem of anticipated heat dissipation with limited R&D budget?

A：T-Global Technology saves your R&D equipment costs! We use industry-leading FloTHERM XT heat flow simulation software, which supports relay files for all computer graphics software and stores model details for complex designs in order to efficiently solve heat dissipation challenges.

Q：Product development project is about to be tested, but effective heat dissipation is challenging. Is there a faster way to solve the problem?

A：T-Global Technology understands the challenges of effective heat dissipation, so leave the thermal issues to us!
We are committed to providing customers with thermal simulation reports within 7 working days.

Q：Is the thermal simulation service very expensive for a low to medium priced product?

A：T-Global Technology is proud of our flexibility. Our professional consultants and R&D team will work with you to identify the best solutions for you within your budget, and rest assured the designs you provide will be subject to a mutual confidentiality agreement.

TG-AK Series

High Performance Thermal Pad

REACH Compliant | RoHS Compliant | UL Comparable

Features

- Great thermal conductivity
- Difficult to be deformed
- Easy to assemble
- Double sided inherent tack

Application:

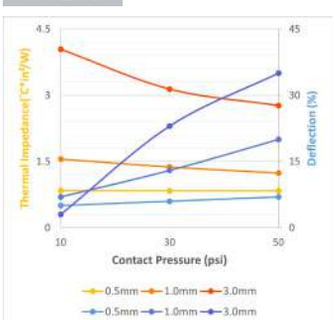
Best for low and medium power applications

Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

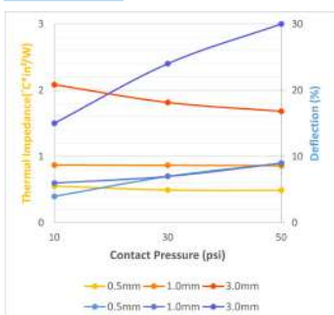
Properties

Contact Pressure, Thermal Impedance, and Deflection

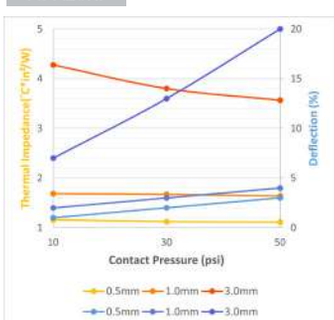
TG-A20KX



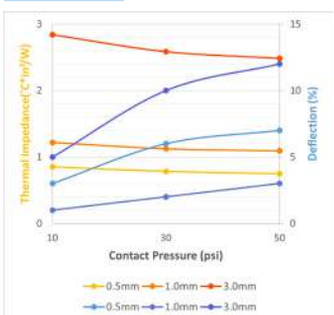
TG-A38KX



TG-A20KF



TG-A38KF



Properties	Unit	TG-A20KX	TG-A38KX	TG-A20KF	TG-A38KF	Tolerance	Test Method
Thermal Conductivity	W/m•K	2	3.8	1.8	3.3	±10%	ASTM D5470 Modified
Thickness	mm	0.3~10.0		0.5~10.0		-	ASTM D374
	inch	0.012~0.394		0.0197~0.394		-	ASTM D374
Color	-	Dark Gray	Blue	Dark Gray	Blue	-	Colorimeter CIE 1976
Reinforcement Carrier	-	-		Fiberglass Mesh		-	-
Flame Rating	-	V-0				-	UL 94
Dielectric Breakdown Voltage	KV/mm	≥12	≥10	≥13	≥10	-	ASTM D149
Weight Loss	%	<1				-	ASTM E595 Modified
Density	g/cm³	2	3.1	2.1	3.1	±5%	ASTM D792
Operating Temperature	° C	-40~+180	-40~+200	-40~+180	-40~+200	-	-
Volume Resistivity	Ohm-m	3×10^{12}				-	ASTM D257
Elongation	%	160	110	160 (Silicone Side)	110 (Silicone Side)	-	ASTM D412
Standard Format	-	Sheet				-	-
Hardness	Shore OO	55	60	55 (Silicone Side)	60 (Silicone Side)	±8	ASTM D2240

※ For thicknesses less than 1.0mm, hardness will be adjusted to 50-75 Shore OO to facilitate effective removal of liner during production
※ Different tolerances according to the selected thickness
※ Die-cut for different shapes

TG-A2200

Ultra Soft Thermal Pad

REACH Compliant | RoHS Compliant | UL Comparable

Features

- Single sticky side and easy to assemble
- Ultra soft and good compressibility
- Good insulation

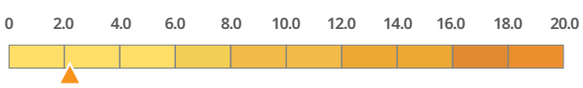
Application:

Best for high power applications

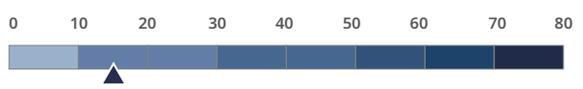
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Properties

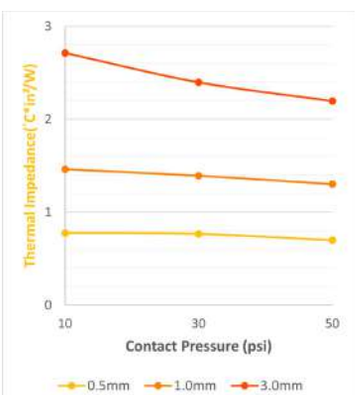
Thermal Conductivity : 2.2 W/m•K

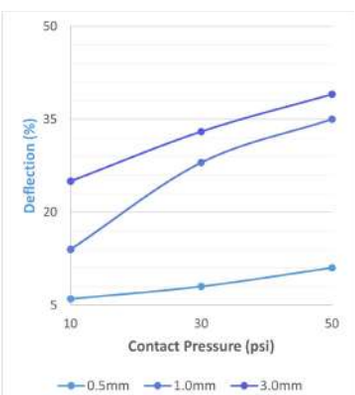


Hardness : 15 (Shore OO)



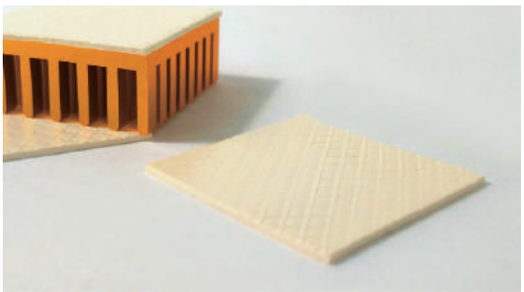
Contact Pressure, Thermal Impedance, and Deflection





Properties	Unit	TG-A2200	Tolerance	Test Method
Thermal Conductivity	W/m•K	2.2	±10%	ASTM D5470 Modified
Thickness	mm	0.5~2.0	-	ASTM D374
	inch	0.0197~0.0787	-	ASTM D374
Color	-	Gray	-	Colorimeter CIE 1976
Flame Rating	-	V-1	-	UL 94
Dielectric Breakdown Voltage	KV/mm	≥13	-	ASTM D149
Weight Loss	%	<1	-	ASTM E595 Modified
Density	g/cm^3	2.7	±5%	ASTM D792
Operating Temperature	°C	-40~+180	-	-
Volume Resistivity	Ohm-m	3×10^{12}	-	ASTM D257
Elongation	%	55	-	ASTM D412
Standard Format	-	Sheet	-	-
Hardness	Shore OO	15	±5	ASTM D2240

※For thicknesses less than 1.0mm, hardness will be adjusted to 50-75 Shore OO to facilitate effective removal of liner during production
※Different tolerances according to the selected thickness
※Die-cut for different shapes



TG-A3500

Ultra Soft Thermal Pad

REACH Compliant | RoHS Compliant | UL Comparable

Features

- Very good thermal conductivity
- High compressibility
- Natural tack

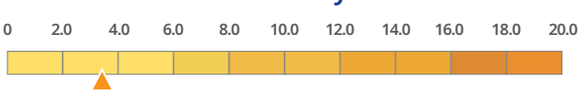
Applications:

Best for high power applications

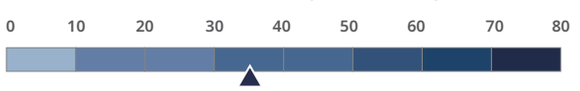
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Properties

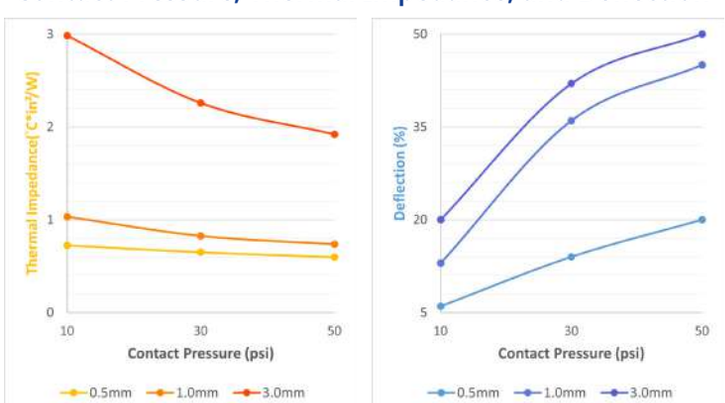
Thermal Conductivity : 3.5 W/m•K



Hardness : 35 (Shore OO)

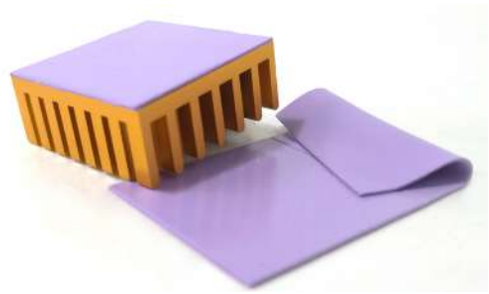


Contact Pressure, Thermal Impedance, and Deflection



Properties	Unit	TG-A3500	Tolerance	Test Method
Thermal Conductivity	W/m•K	3.5	±10%	ASTM D5470 Modified
Thickness	mm	0.5~8.0	-	ASTM D374
	inch	0.0197~0.3149	-	ASTM D374
Color	-	Yellow	-	Colorimeter CIE 1976
Flame Rating	-	V-0	-	UL 94
Dielectric Breakdown Voltage	KV/mm	≥13	-	ASTM D149
Weight Loss	%	<1	-	ASTM E595 Modified
Density	g/cm^3	2.3	±5%	ASTM D792
Operating Temperature	°C	-50~+180	-	-
Volume Resistivity	Ohm-m	8×10^{12}	-	ASTM D257
Elongation	%	80	-	ASTM D412
Standard Format	-	Sheet	-	-
Hardness	Shore OO	35	±15	ASTM D2240

※For thicknesses less than 1.0mm, hardness will be adjusted to 50-75 Shore OO to facilitate effective removal of liner during production
※Different tolerances according to the selected thickness
※Die-cut for different shapes



TG-A4500

Ultra Soft Thermal Pad

REACH Compliant | RoHS Compliant | UL Comparable

Features

- High thermal conductivity
- High compressibility
- Natural tack

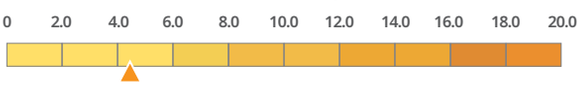
Applications:

Best for high power applications

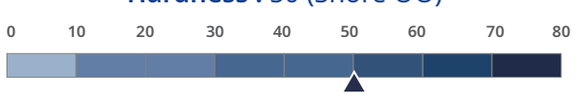
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Properties

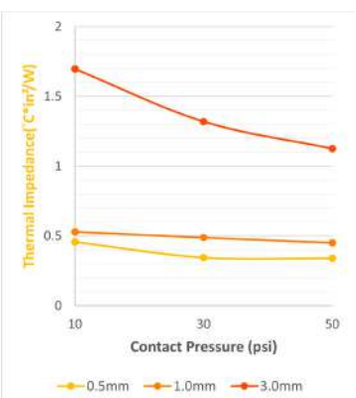
Thermal Conductivity : 4.5 W/m•K

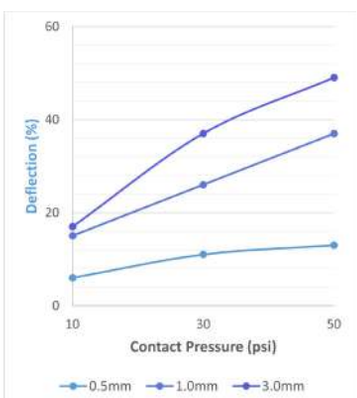


Hardness : 50 (Shore OO)



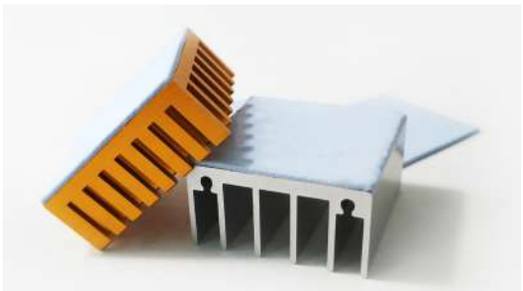
Contact Pressure, Thermal Impedance, and Deflection





Properties	Unit	TG-A4500	Tolerance	Test Method
Thermal Conductivity	W/m•K	4.5	±10%	ASTM D5470 Modified
Thickness	mm	0.5~8.0	-	ASTM D374
	inch	0.0197~0.3149	-	ASTM D374
Color	-	Purple	-	Colorimeter CIE 1976
Flame Rating	-	V-0	-	UL 94
Dielectric Breakdown Voltage	KV/mm	≥10	-	ASTM D149
Weight Loss	%	<1	-	ASTM E595 Modified
Density	g/cm³	3.1	±5%	ASTM D792
Operating Temperature	° C	-50~+180	-	-
Volume Resistivity	Ohm-m	1×10^{13}	-	ASTM D257
Elongation	%	50	-	ASTM D412
Standard Format	-	Sheet	-	-
Hardness	Shore OO	50	±15	ASTM D2240

※For thicknesses less than 1.0mm, hardness will be adjusted to 50-75 Shore OO to facilitate effective removal of liner during production
※Different tolerances according to the selected thickness
※Die-cut for different shapes



TG-A6200

Ultra Soft Thermal Pad

REACH Compliant | RoHS Compliant | UL Comparable

Features

- High thermal conductivity
- High compressibility
- Natural tack

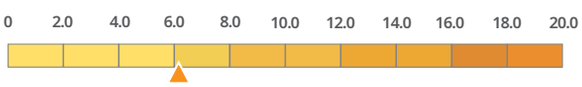
Applications:

Best for high power applications

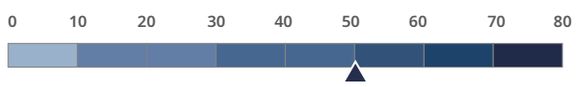
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Properties

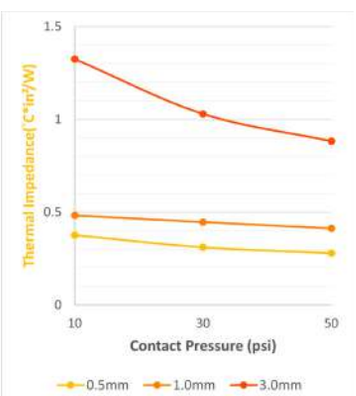
Thermal Conductivity : 6.2 W/m•K

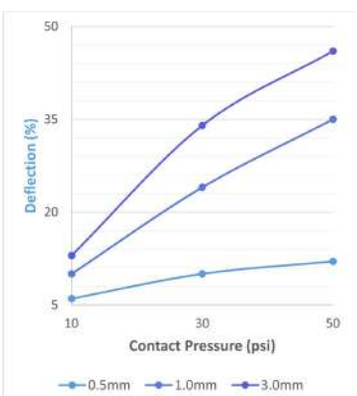


Hardness : 50 (Shore OO)



Contact Pressure, Thermal Impedance, and Deflection





Properties	Unit	TG-A6200	Tolerance	Test Method
Thermal Conductivity	W/m•K	6.2	±10%	ASTM D5470 Modified
Thickness	mm	0.5~8.0	-	ASTM D374
	inch	0.0197~0.3149	-	ASTM D374
Color	-	Blue	-	Colorimeter CIE 1976
Flame Rating	-	V-0	-	UL 94
Dielectric Breakdown Voltage	KV/mm	≥10	-	ASTM D149
Weight Loss	%	<1	-	ASTM E595 Modified
Density	g/cm^3	3.1	±5%	ASTM D792
Operating Temperature	° C	-50~+180	-	-
Volume Resistivity	Ohm-m	1×10^{13}	-	ASTM D257
Elongation	%	50	-	ASTM D412
Standard Format	-	Sheet	-	-
Hardness	Shore OO	50	±15	ASTM D2240

※For thicknesses less than 1.0mm, hardness will be adjusted to 50-75 Shore OO to facilitate effective removal of liner during production
※Different tolerances according to the selected thickness
※Die-cut for different shapes

TG-A9000

Ultra Soft Thermal Pad

REACH Compliant | RoHS Compliant | UL Comparable

Features

- High thermal conductivity
- Low thermal impedance
- High compressibility
- Good electrical insulation

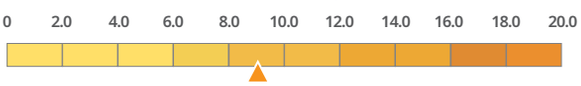
Application:

Best for high power applications

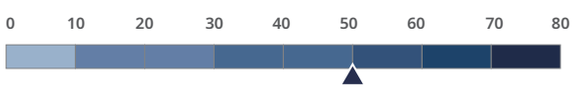
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Properties

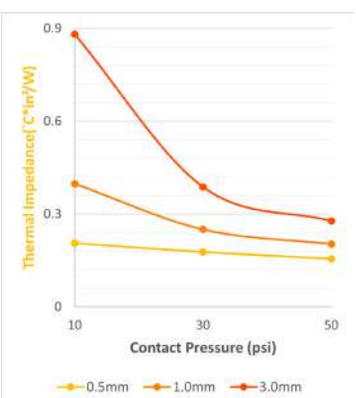
Thermal Conductivity : 9.0 W/m•K

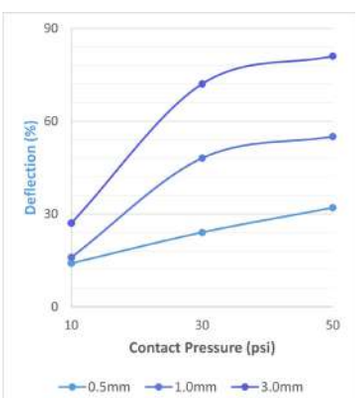


Hardness : 50 (Shore OO)



Contact Pressure, Thermal Impedance, and Deflection





Properties	Unit	TG-A9000	Tolerance	Test Method
Thermal Conductivity	W/m•K	9.0	±10%	ASTM D5470 Modified
Thickness	mm	0.5~8.0	-	ASTM D374
	inch	0.0197~0.3149	-	ASTM D374
Color	-	Pink	-	Colorimeter CIE 1976
Flame Rating	-	V-0	-	UL 94
Dielectric Breakdown Voltage	KV/mm	≥8	-	ASTM D149
Weight Loss	%	<1	-	ASTM E595 Modified
Density	g/cm^3	3.2	±5%	ASTM D792
Operating Temperature	° C	-50~+180	-	-
Volume Resistivity	Ohm-m	1×10^{12}	-	ASTM D257
Elongation	%	40	-	ASTM D412
Standard Format	-	Sheet	-	-
Hardness	Shore OO	50	±15	ASTM D2240

※For thicknesses less than 1.0mm, hardness will be adjusted to 50-75 Shore OO to facilitate effective removal of liner during production
※Different tolerances according to the selected thickness
※Die-cut for different shapes

TG-A1250

Ultra Soft Thermal Pad

REACH Compliant | RoHS Compliant | UL Comparable

Features

- High thermal conductivity
- Low thermal impedance
- High compressibility
- Good electrical insulation

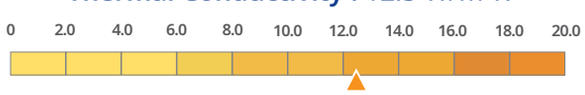
Application:

Best for high power applications

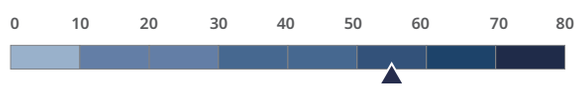
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Properties

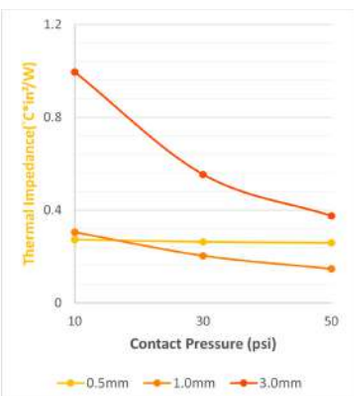
Thermal Conductivity : 12.5 W/m•K

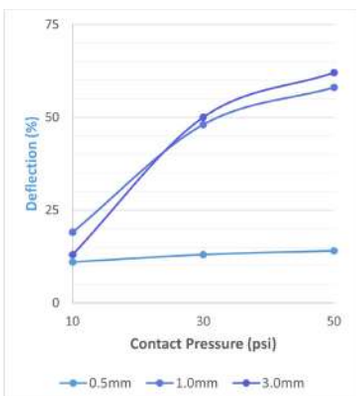


Hardness : 55 (Shore OO)



Contact Pressure, Thermal Impedance, and Deflection





Properties	Unit	TG-A1250	Tolerance	Test Method
Thermal Conductivity	W/m•K	12.5	±10%	ASTM D5470 Modified
Thickness	mm	0.5~8.0	-	ASTM D374
	inch	0.0197~0.3149	-	ASTM D374
Color	-	Green	-	Colorimeter CIE 1976
Flame Rating	-	V-0	-	UL 94
Dielectric Breakdown Voltage	KV/mm	≥10	-	ASTM D149
Weight Loss	%	<1	-	ASTM E595 Modified
Density	g/cm^3	3.3	±5%	ASTM D792
Operating Temperature	° C	-50~+180	-	-
Volume Resistivity	Ohm-m	1×10^{13}	-	ASTM D257
Elongation	%	40	-	ASTM D412
Standard Format	-	Sheet	-	-
Hardness	Shore OO	55	±10	ASTM D2240

※For thicknesses less than 1.0mm, hardness will be adjusted to 50-75 Shore OO to facilitate effective removal of liner during production
※Different tolerances according to the selected thickness
※Die-cut for different shapes

TG-A1450

Ultra Soft Thermal Pad

REACH Compliant | RoHS Compliant | UL Comparable

Features

- High thermal conductivity
- Low thermal impedance
- Good electrical insulation

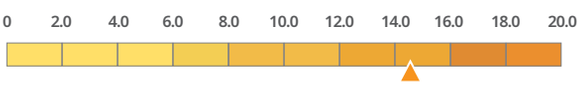
Application:

Best for high power applications

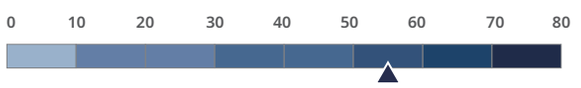
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Properties

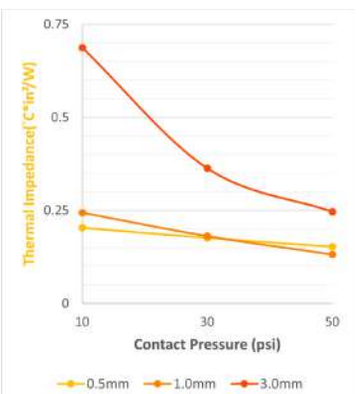
Thermal Conductivity : 14.5 W/m•K

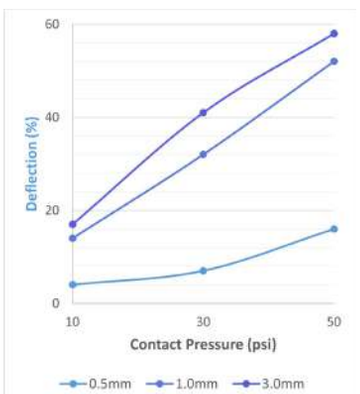


Hardness : 55 (Shore OO)



Contact Pressure, Thermal Impedance, and Deflection





Properties	Unit	TG-A1450	Tolerance	Test Method
Thermal Conductivity	W/m•K	14.5	±10%	ASTM D5470 Modified
Thickness	mm	0.5~2.0	-	ASTM D374
	inch	0.0197~0.0787	-	ASTM D374
Color	-	Pink	-	Colorimeter CIE 1976
Flame Rating	-	V-0	-	UL 94
Dielectric Breakdown Voltage	KV/mm	≥8	-	ASTM D149
Weight Loss	%	<1	-	ASTM E595 Modified
Density	g/cm³	3.6	±5%	ASTM D792
Operating Temperature	° C	-50~+180	-	-
Volume Resistivity	Ohm-m	7×10^{12}	-	ASTM D257
Elongation	%	30	-	ASTM D412
Standard Format	-	Sheet	-	-
Hardness	Shore OO	55	±10	ASTM D2240

※For thicknesses less than 1.0mm, hardness will be adjusted to 50-75 Shore OO to facilitate effective removal of liner during production
※Different tolerances according to the selected thickness
※Die-cut for different shapes

TG-A1660

Ultra Soft Thermal Pad

REACH Compliant | RoHS Compliant | UL Comparable

Features

- High thermal conductivity
- Low thermal impedance
- Good electrical insulation

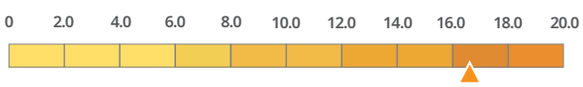
Application:

Best for high power applications

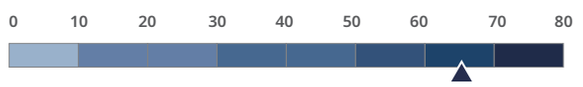
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Properties

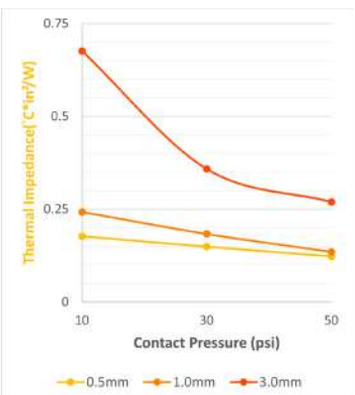
Thermal Conductivity : 16.6 W/m•K

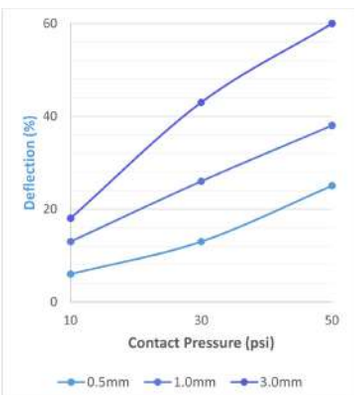


Hardness : 65 (Shore OO)



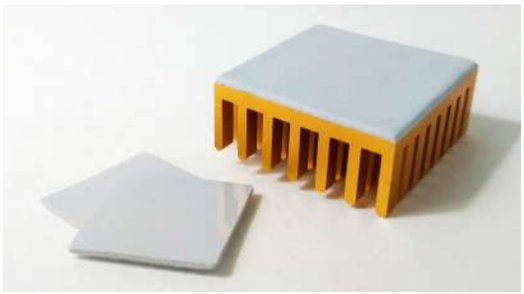
Contact Pressure, Thermal Impedance, and Deflection





Properties	Unit	TG-A1660	Tolerance	Test Method
Thermal Conductivity	W/m•K	16.6	±10%	ASTM D5470 Modified
Thickness	mm	0.5~2.0	-	ASTM D374
	inch	0.0197~0.0787	-	ASTM D374
Color	-	Dark Gray	-	Colorimeter CIE 1976
Flame Rating	-	V-0	-	UL 94
Dielectric Breakdown Voltage	KV/mm	≥7	-	ASTM D149
Weight Loss	%	<1	-	ASTM E595 Modified
Density	g/cm³	3.6	±5%	ASTM D792
Operating Temperature	° C	-50~+180	-	-
Volume Resistivity	Ohm-m	5×10^{12}	-	ASTM D257
Elongation	%	20	-	ASTM D412
Standard Format	-	Sheet	-	-
Hardness	Shore OO	65	±10	ASTM D2240

※For thicknesses less than 1.0mm, hardness will be adjusted to 50-75 Shore OO to facilitate effective removal of liner during production
※Different tolerances according to the selected thickness
※Die-cut for different shapes



TG-A1780

Ultra Soft Thermal Pad

REACH Compliant | RoHS Compliant | UL Comparable

Features

- High thermal conductivity
- Low thermal impedance
- Good electrical insulation

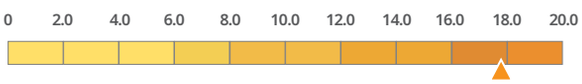
Application:

Best for high power applications

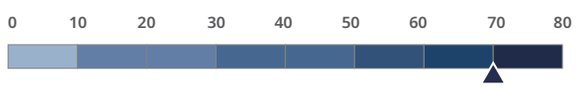
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Properties

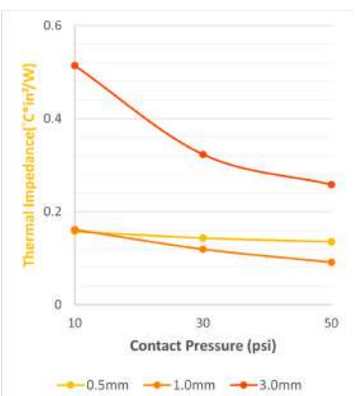
Thermal Conductivity : 17.8 W/m•K

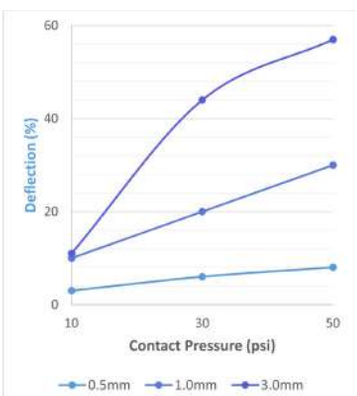


Hardness : 70 (Shore OO)



Contact Pressure, Thermal Impedance, and Deflection





Properties	TG-A1780	Unit	Tolerance	Test Method
Thermal Conductivity	17.8	W/m•K	±10%	ASTM D5470 Modified
Thickness	0.5~2.0	mm	-	ASTM D374
	0.0197~0.0787	inch	-	ASTM D374
Color	Light Gray	-	-	Colorimeter CIE 1976
Flame Rating	V-0	-	-	UL 94
Dielectric Breakdown Voltage	≥8	KV/mm	-	ASTM D149
Weight Loss	<1	%	-	ASTM E595 Modified
Density	3.5	g/cm^3	±5%	ASTM D792
Operating Temperature	-50~+180	° C	-	-
Volume Resistivity	6×10^{12}	Ohm-m	-	ASTM D257
Elongation	20	%	-	ASTM D412
Standard Format	Sheet	-	-	-
Hardness	70	Shore OO	±10	ASTM D2240

※For thicknesses less than 1.0mm, hardness will be adjusted to 50-75 Shore OO to facilitate effective removal of liner during production
※Different tolerances according to the selected thickness
※Die-cut for different shapes

TG-ALC Series

High Performance Thermal Pad

REACH Compliant | RoHS Compliant | UL Comparable

Features

- Great thermal conductivity
- Low thermal impedance
- Good compressibility

Application:

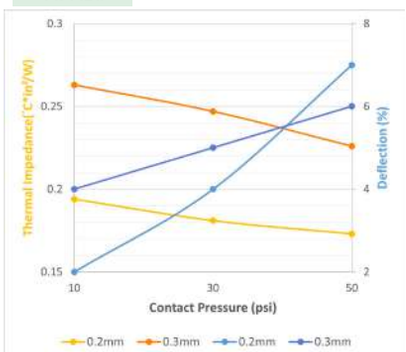
Best for high power applications

Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

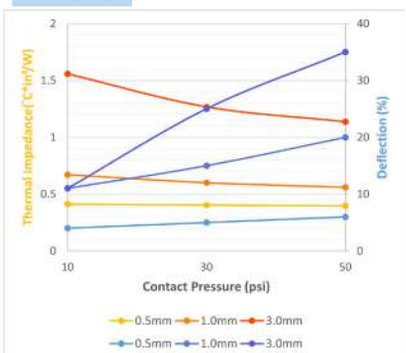
Properties

Contact Pressure, Thermal Impedance, and Deflection

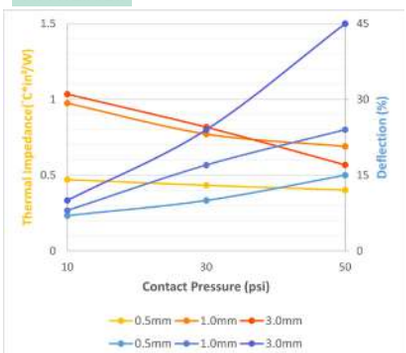
TG-ALC



TG-A6200LC



TG-A1250LC



Properties	Unit	TG-ALC	TG-A6200LC	TG-A1250LC	Tolerance	Test Method
Thermal Conductivity	W/m•K	4.2	5	10	±10%	ASTM D5470 Modified
Thickness	mm	0.2/0.3	0.5~2.5	1.0~2.5	-	ASTM D374
	inch	0.0079/0.0118	0.0197~0.0984	0.0394~0.0984	-	ASTM D374
Color	-	Green	Pad-Blue LC-Green	Pad-Green LC-Green	-	Colorimeter CIE 1976
Flame Rating	-	V-0			-	UL 94
Dielectric Breakdown Voltage	KV/mm	≥4	≥6		-	ASTM D149
Weight Loss	%	<1			-	ASTM E595 Modified
Density	g/cm^3	2.9	3	3.3	-	ASTM D792
Operating Temperature	° C	-50~+180			-	-
Volume Resistivity	Ohm-m	1×10^{12}	1×10^{10}		-	ASTM D257
Elongation	%	10	50	40	-	ASTM D412
Standard Format	-	Sheet			-	-
Hardness	Shore	A 60	OO 50	OO 60	±10	ASTM D2240

※ For thicknesses less than 1.0mm, hardness will be adjusted to 50-75 Shore OO to facilitate effective removal of liner during production
※ Different tolerances according to the selected thickness
※ Die-cut for different shapes

TG-A Series

Fiberglass Mesh Series Thermal Pad

REACH Compliant | RoHS Compliant | UL Comparable

Features

- High thermal conductivity
- Fiberglass on one side
- Non-deforming
- Electrical insulation

Application:

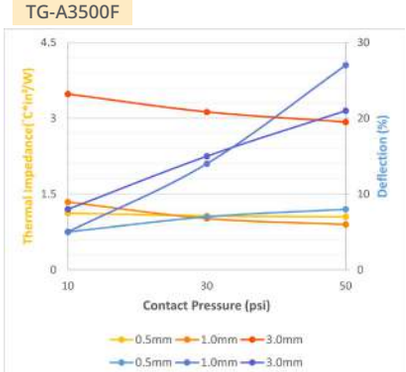
Suitable for high voltage applications

Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

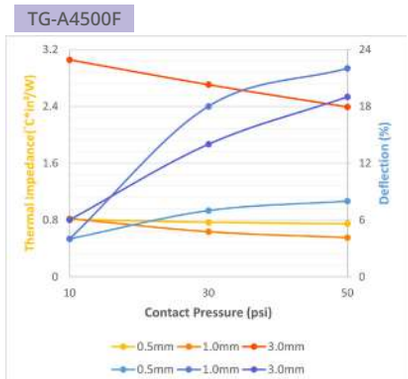
Properties

Contact Pressure, Thermal Impedance, and Deflection

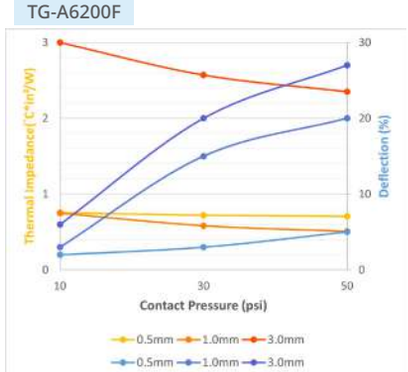
TG-A3500F



TG-A4500F



TG-A6200F



Properties	Unit	TG-A3500F	TG-A4500F	TG-A6200F	Tolerance	Test Method
Thermal Conductivity	W/m•K	3	4	5	±10%	ASTM D5470 Modified
Thickness	mm	0.5~8.0			-	ASTM D374
	inch	0.0197~0.3149			-	ASTM D374
Color	-	Yellow	Purple	Blue	-	Colorimeter CIE 1976
Reinforcement Carrier	-	Fiberglass Mesh			-	-
Flame Rating	-	V-0			-	UL 94
Dielectric Breakdown Voltage	KV/mm	≥18	≥11	≥12	-	ASTM D149
Weight Loss	%	<1			-	ASTM E595 Modified
Density	g/cm^3	2.3	3.1	3.1	±5%	ASTM D792
Operating Temperature	° C	-50~+180			-	-
Volume Resistivity	Ohm-m	8×10^{12}	1×10^{13}	1×10^{13}	-	ASTM D257
Elongation	%	80	50	50	-	ASTM D412
Standard Format	-	Sheet			-	-
Hardness (Silicone Side)	Shore OO	35	50	50	±15	ASTM D2240

※ For thicknesses less than 1.0mm, hardness will be adjusted to 50-75 Shore OO to facilitate effective removal of liner during production
※ Different tolerances according to the selected thickness
※ Die-cut for different shapes

GT10D
Thermal Pad

RoHS Compliant

Features

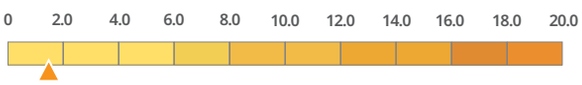
- Smooth surface & low contact resistance
- Low thermal impedance
- High stability
- Great reliability

Application:

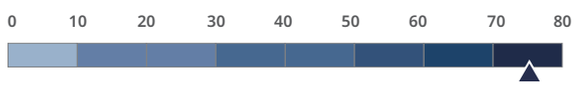
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Properties

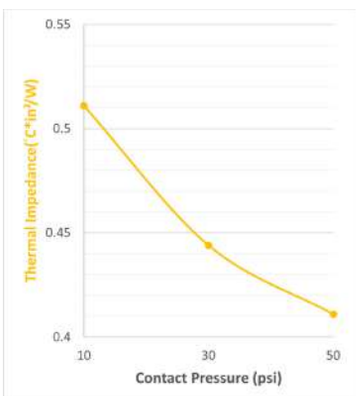
Thermal Conductivity : 1.5 W/m•K

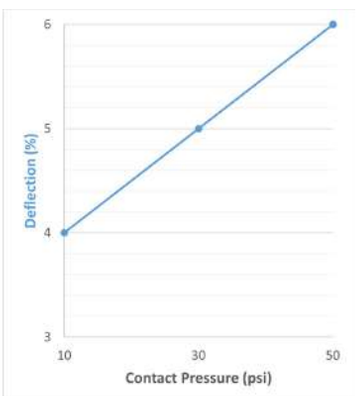


Hardness : 75 (Shore A)



Contact Pressure, Thermal Impedance, and Deflection





Properties	Unit	GT10D	Tolerance	Test Method
Thermal Conductivity	W/m•K	1.5	±10%	ASTM D5470 Modified
Thickness	mm	0.25	-	ASTM D374
Color	-	Pink	-	Colorimeter CIE 1976
Reinforcement Carrier	-	Fiberglass Mesh	-	-
Dielectric Breakdown Voltage	KV	≥6	-	ASTM D149
Weight Loss	%	<0.2	-	ASTM E595 Modified
Density	g/cm^3	2	±5%	ASTM D792
Operating Temperature	° C	-45~+180	-	-
Volume Resistivity	Ohm-m	>10^{12}	-	ASTM D257
Elongation	%	50	-	ASTM D412
Tensile Strength	kgf/cm^2	150	-	ASTM D412
Standard Format	-	Sheet	-	-
Hardness	Shore A	75	±7	ASTM D2240

※Different tolerances according to the selected thickness
※Die-cut for different shapes

GT Series
Thermal Pad

REACH Compliant | RoHS Compliant | UL Comparable

Features

- Smooth surface & low contact resistance
- Wide temperature range
- Electrical insulation; high breakdown voltage

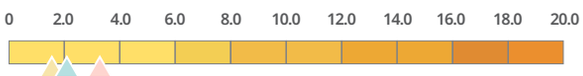
Application:

Usable over a wide temperature range

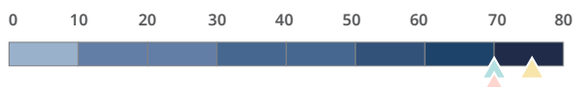
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Properties

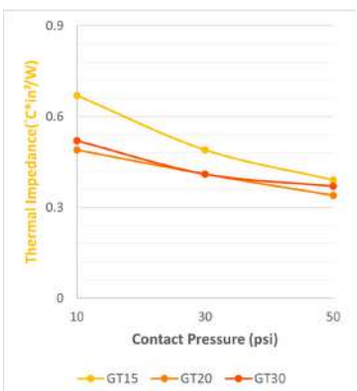
Thermal Conductivity : 1.6/2.1/3.2 W/m•K

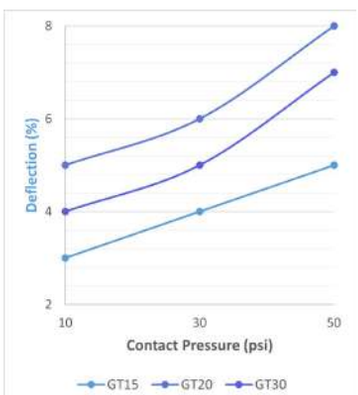


Hardness : 75/70/70 (Shore A)



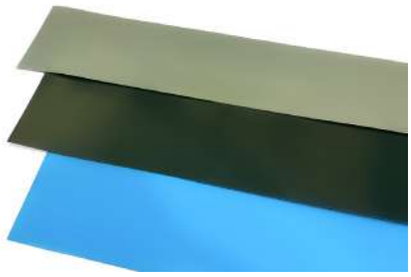
Contact Pressure, Thermal Impedance, and Deflection





Properties	Unit	GT15	GT20	GT30	Tolerance	Test Method
Thermal Conductivity	W/m•K	1.6	2.1	3.2	±10%	ASTM D5470 Modified
Thickness	mm	0.23	0.3	0.35	-	ASTM D374
Color	-	Yellow	Green	Pink	-	Colorimeter CIE 1976
Reinforcement Carrier	-	Fiberglass Mesh			-	-
Flame Rating	-	V-0			-	UL 94
Dielectric Breakdown Voltage (AC)	KV	≥4.1	≥4.1	≥3.1	-	ASTM D149
Dielectric Breakdown Voltage (DC)	KV	≥6.1	≥6.1	≥5.1	-	ASTM D149
Weight Loss	%	<0.2			-	ASTM E595 Modified
Density	g/cm^3	2.3	2.6	2.8	±5%	ASTM D792
Operating Temperature	° C	-45~+180			-	-
Volume Resistivity	Ohm-m	$>10^{12}$	$>10^{12}$	$>10^{10}$	-	ASTM D257
Elongation	%	60	60	30	-	ASTM D412
Tensile Strength	kgf/cm^2	200	200	100	-	ASTM D412
Standard Format	-	Sheet			-	-
Hardness	Shore A	75	70	70	±3	ASTM D2240

※Different tolerances according to the selected thickness
※Die-cut for different shapes



TG-T1000 Series
Thermal Tape

REACH Compliant | RoHS Compliant

Features

- Good adhesion
- Great reliability
- Cost effective with great performance
- Easy to assemble
- Customization services

Applications:

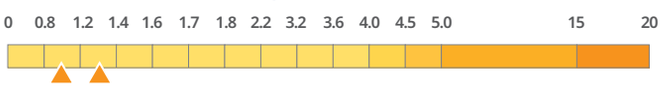
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Storage:

T-Global guarantees a 6-month shelf life at maximum continuous storage. Storage temperature should be under 25℃ to maintain controlled adhesion to the liner.

Properties

Thermal Conductivity : 1 / 1.3 W/m•K



Properties	Unit	TG-T1000		TG-T1000T	Tolerance	Test Method
Thermal Conductivity	W/m•K	1	1	1.3	±10%	ASTM D5470 Modified
Thickness	mm	0.15	0.25	0.11	-	ASTM D374
Color	-	White		Gray	-	-
Reinforcement Carrier	-	Fiberglass Mesh		PET	-	-
Operating Temperature	° C	-30~+120		-40~+120	-	-
Short time use temperature (30sec)	° C	180		200	-	-
Density	g/cm^3	1.2		1.5	-	ASTM D792
Initial Tack	cm	19	11	24	-	PSTC-6
Holding Power 1000g@25° Cusing 1 in^2	min	>3000		>1000	-	PSTC-7
Peeling Strength 180° (Aluminum)	N / 25mm	>14	>16	≥7	-	PSTC-101
Dielectric Breakdown Voltage (AC)	KV	≥3	≥6	≥4	-	ASTM D149
Thermal Impedance@10psi	° C*in^2 / W	0.93	1.26	0.68		ASTM D5470 Modified
Thermal Impedance@30psi	° C*in^2 / W	0.76	1.06	0.66	-	ASTM D5470 Modified
Thermal Impedance@50psi	° C*in^2 / W	0.61	1.05	0.65	-	ASTM D5470 Modified

※Die-cut for different shapes
※Roll type available

Li98 Series
Thermal Tape

REACH Compliant RoHS Compliant

Features

- Good adhesion
- Great reliability
- Cost effective with great performance
- Easy to assemble
- Customization services

Application:

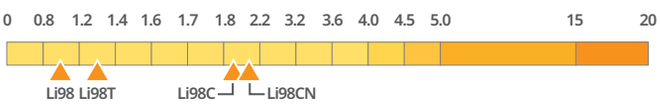
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Storage:

T-Global guarantees a 6-month shelf life at maximum continuous storage. Storage temperature should be under 25℃ to maintain controlled adhesion to the liner.

Properties

Thermal Conductivity : 1(Li98) / 1.3(Li98T) / 1.9(Li98C) / 2.1(Li98CN) W/m•K



Properties	Unit	Li98		Li98T	Li98C		Li98CN	Tolerance	Test Method
Thermal Conductivity	W/m•K	1	1	1.3	1.9	1.9	2.1	±10%	ASTM D5470 Modified
Thickness	mm	0.15	0.25	0.11	0.15	0.25	0.18	-	ASTM D374
Color	White							-	-
Reinforcement Carrier	-	Fiberglass Mesh		PET	Fiberglass Mesh		-	-	-
Operating Temperature	° C	-30~+120		-60~+120	-30~+120			-	-
Short Time Use Temperature (30sec)	° C	200						-	-
Density	g/cm³	1.85		1.6	1.8	1.8	1.8	±5%	ASTM D792
Tensile Strength	psi	200	400	400	200	400	-	-	ASTM D412
Glass Transition Temperature	° C	-30	-30	-	-27	-27	-30	-	-
Initial Tack	cm	10	8	10	14	12	15	-	PSTC-6
Lap Shear Strength	N/cm²	61		60	55	50	55	-	ASTM D1002
Die Shear Strength@25° C	N/cm²	120		105	109	100	100	-	-
Die Shear Strength@80° C	N/cm²	69		60	68	68	55	-	-
Holding Power 1000g@25° Cusing 1 in²	min	>10000						-	PSTC-7
Holding Power 1000g@80° Cusing 1 in²	min	>10000						-	PSTC-7
90° Peeling Strength (Aluminum)	N/in	>10	>12	>12	>6	>8	>8	-	ASTM D3330
Dielectric Breakdown Voltage (AC)	KV	≥2	≥3.1	≥4.1	≥2	≥3.1	≥5.1	-	ASTM D149
Dielectric Breakdown Voltage (DC)	KV	≥3.1	≥4.1	≥5.1	≥3.1	≥4.1	≥6.1	-	ASTM D149
Thermal Impedance@10psi	° C*in²/W	0.93	1.26	0.63	0.64	0.89	0.73	-	ASTM D5470 Modified
Thermal Impedance@30psi	° C*in²/W	0.76	1.05	0.60	0.60	0.85	0.68	-	ASTM D5470 Modified
Thermal Impedance@50psi	° C*in²/W	0.61	1.06	0.59	0.53	0.87	0.66	-	ASTM D5470 Modified

※Die-cut for different shapes ※Roll type available

TG-AS808 / TG-S808

Thermal Grease

REACH Compliant | RoHS Compliant

Features

- High thermal conductivity
- Good leveling property & no overflow
- Effectively fills surface irregularities
- Low thermal impedance
- Silicone base, environmental friendly

Application:

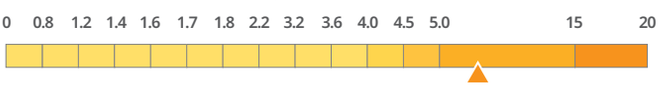
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Storage:

Thermal grease has a shelf-life of 12 months from the date of manufacture, as indicated by the lot number, when stored in the original, unopened container at, or below 25°C.

Properties

Thermal Conductivity : 8 W/m•K



Properties	Unit	TG-AS808 / TG-S808	Tolerance	Test Method
Thermal Conductivity	W/m•K	8	±10%	ASTM D5470 Modified
Color	-	Gray	-	-
Oil Dispersible	wt%	<0.1	-	24hr @150° C
Weight Loss	wt%	<0.1	-	ASTM E595 Modified
Viscosity	Pa·s	350	±100	Brookfield
Density	g/cm^3	2.9	±5%	ASTM D792
Operating Temperature	° C	-40~+200	-	-
Volume Resistivity	Ohm-m	>10^{13}	-	ASTM D257
Standard Package	-	Pot	-	-

▶ If an oil layer occurs on top of the thermal grease, it belongs to a normal phenomenon. We suggest to stir it evenly before usage.
Please avoid any dust or impurity adhering to the thermal grease. This will increase the thermal resistance and reduce the effectiveness of heat dissipation.
Condition of storage once opened: Constant temperature or cold storage, temperature between +5℃~+15℃. Please consume it within six months.

TG-AS606 / S606 Series

Thermal Grease

REACH Compliant RoHS Compliant

Features

- Good thermal conductivity
- Easy to assemble
- High stability

Application:

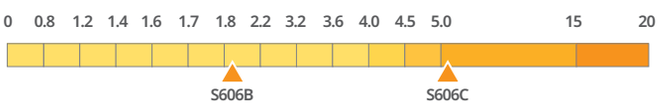
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Storage:

Thermal grease has a shelf-life of 12 months from the date of manufacture, as indicated by the lot number, when stored in the original, unopened container at, or below 25°C.

Properties

Thermal Conductivity : 1.9(S606B / TG-AS606B) / 5.3(S606C / TG-AS606C) W/m•K



Properties	Unit	TG-AS606B / S606B	TG-AS606C / S606C	Tolerance	Test Method
Thermal Conductivity	W/m•K	1.9	5.3	±10%	ASTM D5470 Modified
Color	-	White	Gray	-	-
Oil Dispersible	%	<0.2	<0.05	-	24hr @150° C
Weight Loss	%	<0.5		-	ASTM E595 Modified
Density	g/cm^3	2.2	2.95	±5%	ASTM D792
Operating Temperature	° C	-40~+180		-	-
Viscosity	Pa·s	200(±80)	150(±50)	-	Brookfield
Volume Resistivity	Ohm-m	>10^{11}	>10^{12}	-	ASTM D257
Standard Package	-	Tube/Pot		-	-

▶ If an oil layer occurs on top of the thermal grease, it belongs to a normal phenomenon. We suggest to stir it evenly before usage.
Please avoid any dust or impurity adhering to the thermal grease. This will increase the thermal resistance and reduce the effectiveness of heat dissipation.
Condition of storage once opened: Constant temperature or cold storage, temperature between +5℃~+15℃. Please consume it within six months.

TG Series
Thermal Putty

REACH Compliant | RoHS Compliant

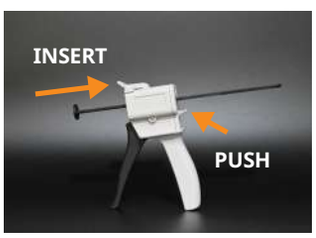
Features

- Silicone-type spacer with great long term reliability
- Lower thermal contact impedance than thermal pads
- Physical property in between liquid and solid state
- Gap fillers for uneven or irregular surfaces of heat sources and heat sink
- Applicable for dispenser

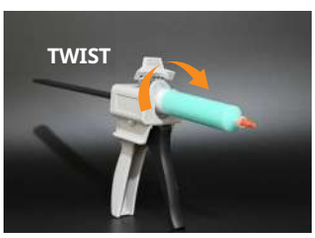
Application:

Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

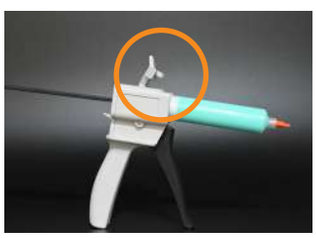
Operation Manual



① Push the latch and insert the stick.



② Put the tube in and twist.

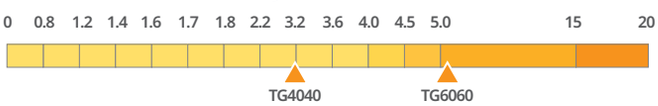

③ Close the cover.

④ Take off the plug.

(The putty in the picture does not represent the actual product.)

Properties

Thermal Conductivity : 3.2(TG4040) / 6.3(TG6060) W/m•K



Properties	Unit	TG4040	TG6060	Tolerance	Test Method
Thermal Conductivity	W/m•K	3.2	6.3	±0.3	ASTM D5470 Modified
Color	-	Blue		-	-
Viscosity @0.5rpm	Pa·s	250(±100)	270(±50)	-	Brookfield
Density	g/cm^3	2.9	3.3	±5%	ASTM D792
Volume Resistivity	Ohm-mm	10^{13}		-	ASTM D257
Operating Temperature	° C	-50~+180		-	-
Standard Package	-	Tube/Pot		-	-

TG-A7000
Thermal Putty

REACH Compliant | RoHS Compliant

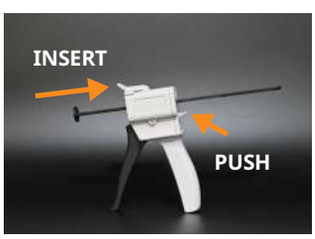
Features

- Silicone-type spacer with great long term reliability
- Lower thermal contact impedance than thermal pads
- Physical property in between liquid and solid state
- Gap fillers for uneven or irregular surfaces of heat sources and heat sink
- Applicable for dispenser

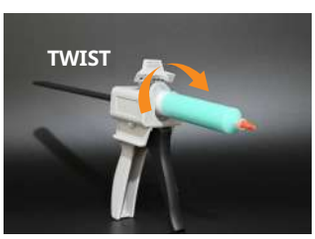
Application:

Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

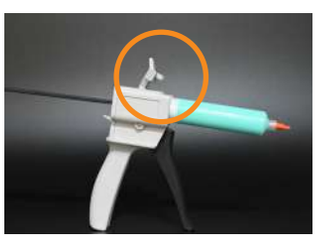
Operation Manual



① Push the latch and insert the stick.



② Put the tube in and twist.

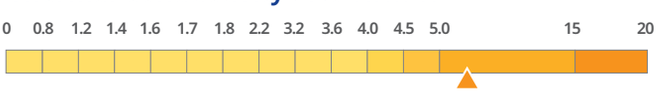

③ Close the cover.

④ Take off the plug.

The putty in the picture does not represent the actual product.)

Properties

Thermal Conductivity : 7.0 W/m•K



Properties	Unit	TG-A7000	Tolerance	Test Method
Thermal Conductivity	W/m•K	7.0	-	ASTM D5470 Modified
Color	-	Green	-	-
Viscosity	Pa·s	250	±100	Brookfield
Density	g/cm^3	3.25	-	ASTM D792
Volume Resistivity	Ohm-m	10^{13}	-	ASTM D257
Operating Temperature	° C	-50~+180	-	-
Standard Package	-	Tube/Pot	-	-

TG-A96AB / A96AB

Epoxy Potting Compound

REACH Compliant RoHS Compliant

Features

- Epoxy based material with high hardness for support
- Protect components from any effect after cure
- Applicable for dispenser
- Cured by room temperature or heating

Application:

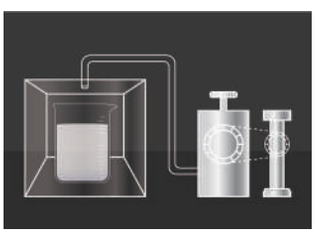
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Storage:

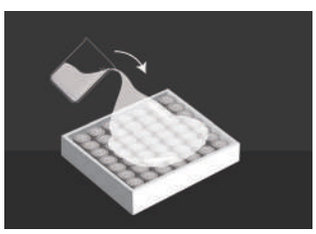
Epoxy Potting Compound has a shelf-life of 12 months from the date of manufacture, as indicated by the lot number, when stored in the original, unopened container at or below 25°C.

Operation Manual

① Mix with component A and B.



② Vacuum out air.



③ Pour potting compound.

Properties

Thermal Conductivity : 2.6 W/m•K

0 0.8 1.2 1.4 1.6 1.7 1.8 2.2 3.2 3.6 4.0 4.5 5.0 15 20

Hardness : 68 (Shore A)

0 5 10 15 20 25 30 40 80

Properties	Unit	TG-A96AB / A96AB	Tolerance	Test Method
Thermal Conductivity	W/m•K	2.6	±0.25	ASTM D5470 Modified
Color	-	White/Black	-	-
Dielectric Breakdown Voltage	KV/mm	≥11	-	ASTM D149
Weight Loss	%	<1	-	ASTM E595 Modified
Density	g/cm³	2.5	±5%	ASTM D792
Operating Temperature	° C	-25~+150	-	-
Viscosity	Pa·s	1.8~2.5	-	Brookfield
Curing Time @25° C	Hrs	12	-	-
Curing Time @80° C	Hrs	0.5	-	-
Standard Package	-	Pot	-	-
Hardness	Shore A	68	±10	ASTM D2240
Mixing Ratio	gram	13:1	-	-

▶ Component A is a mixed material of epoxy and thermal conductive powder. It is normal to cause precipitation and stratification due to different density. Well mixed component A before use by a flat spatula or other stainless tools to achieve the ideal thermal conductivity.

TG-A720AB / S720AB

Silicone Potting Compound

REACH Compliant | RoHS Compliant

Features

- Good thermal conductivity
- Cured by room temperature
- High stability
- Water proof

Application:

Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

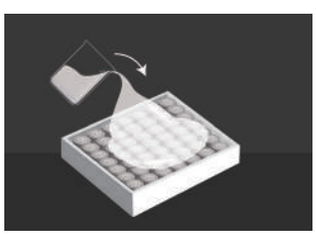
Storage:

Silicone Potting Compound has a shelf-life of 12 months from the date of manufacture, as indicated by the lot number, when stored in the original, unopened container at or below 25°C.

Operation Manual

① Mix component A and B.

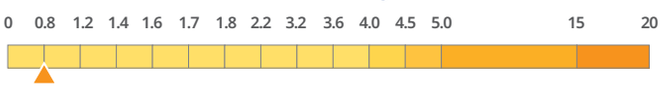
② Vacuum out air.



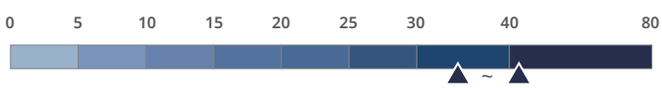
③ Pour potting compound.

Properties

Thermal Conductivity : 0.8 W/m•K



Hardness : 50 (Shore A)



Properties	Unit	TG-A720AB / S720AB	Tolerance	Test Method
Thermal Conductivity	W/m•K	0.8	±10%	ASTM D5470 Modified
Color	-	White	-	-
Dielectric Breakdown Voltage	KV/mm	≥12	-	ASTM D149
Weight Loss	%	<1	-	ASTM E595 Modified
Density	g/cm³	1.97	±5%	ASTM D792
Operating Temperature	° C	-40~+180	-	-
Viscosity	Pa·s	2~10	-	Brookfield
Curing Time @25° C	Hrs	18	-	-
Standard Package	-	Pot	-	-
Hardness	Shore A	50	±10	ASTM D2240
Mixing Ratio	gram	100:2	-	-

▶ Component A is a mixed material of silicone and thermal conductive powder. It is normal to cause precipitation and stratification due to different density. Well mixed component A before use by a flat spatula or other stainless tools to achieve the ideal thermal conductivity.

TG-A730AB / S730AB

Silicone Potting Compound

REACH Compliant | RoHS Compliant

Features

- Good thermal conductivity
- Cured by heat
- A:B = 1:1
- Pistol friendly & easy assembly
- Low viscosity

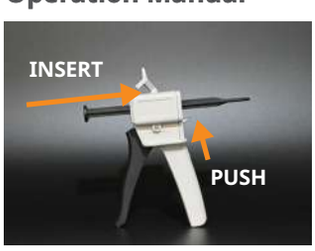
Application:

Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Storage:

Silicone Potting Compound has a shelf-life of 12 months from the date of manufacture, as indicated by the lot number, when stored in the original, unopened container at or below 25°C.

Operation Manual



① Push the latch and insert the stick.

② Put the tube in.


③ Close the cover.

Properties

Thermal Conductivity : 2.1 W/m•K

0 0.8 1.2 1.4 1.6 1.7 1.8 2.2 3.2 3.6 4.0 4.5 5.0 15 20

Hardness : 60 (Shore A)

0 5 10 15 20 25 30 40 80

Properties	Unit	TG-A730AB / S730AB	Tolerance	Test Method
Thermal Conductivity	W/m•K	2.1	±10%	ASTM D5470 Modified
Color	-	Gray	-	-
Dielectric Breakdown Voltage	KV/mm	≥11	-	ASTM D149
Volume Resistivity	Ohm-m	$1*10^{12}$	-	ASTM D257
Density	g/cm^3	2.3	±5%	ASTM D792
Operating Temperature	° C	-50~+200	-	-
Viscosity	Pa·s	6~12	-	Brookfield
Curing Time @25° C	Min	180	-	-
Curing Time @60° C	Min	15	-	-
Curing Time @100° C	Min	5	-	-
Standard Package	-	Tube/Pot	-	-
Hardness	Shore A	60	±10	ASTM D2240
Mixing Ratio	gram	1:1	-	-

▶ Component A is a mixed material of silicone and thermal conductive powder. It is normal to cause precipitation and stratification due to different density. Well mixed component A before use by a flat spatula or other stainless tools to achieve the ideal thermal conductivity.

TG-A09AB / TG-S09AB

Silicone Potting Compound

REACH Compliant | RoHS Compliant

Features

- Good thermal conductivity
- Protect electronic components after cured
- A:B=1:1
- Cured by room temperature or heating

Application:

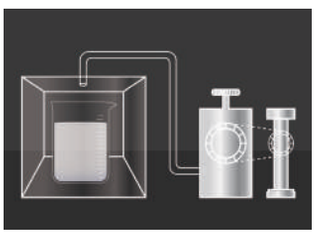
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Storage:

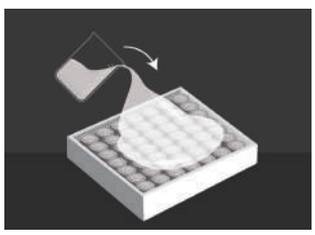
Silicone Potting Compound has a shelf-life of 12 months from the date of manufacture, as indicated by the lot number, when stored in the original, should be unopened container at or below 25°C.

Operation Manual

① Mix component A and B.



② Vacuum out air.



③ Pour potting compound.

Properties

Thermal Conductivity : 2.8 W/m•K

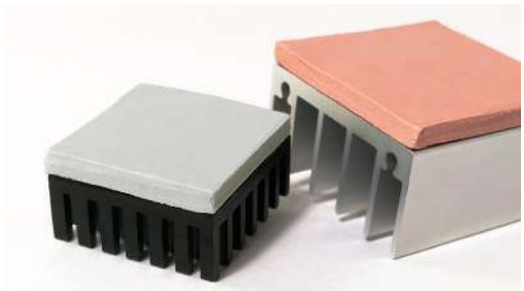
0 0.8 1.2 1.4 1.6 1.7 1.8 2.2 3.2 3.6 4.0 4.5 5.0 15 20

Hardness : 90 (Shore OO)

0 10 20 30 40 50 60 70 100

Properties	Unit	TG-A09AB / TG-S09AB	Tolerance	Test Method
Thermal Conductivity	W/m•K	2.8	±10%	ASTM D5470 Modified
Color	-	Gray (Mix)	-	-
Dielectric Breakdown Voltage	KV/mm	≥11	-	ASTM D149
Volume Resistivity	Ohm-m	$\geq 10^{12}$	-	ASTMD257
Density	g/cm³	2.52	±5%	ASTM D792
Operating temperature	° C	-50~+150	-	-
Tensile Strength @3.0mm	kgf/cm²	230	-	ASTM D412
Elongation	%	55	-	ASTM D412
Viscosity	Pa·s	10~50	-	Brookfield
Weight Loss	%	<1	-	ASTM E595 Modified
Curing Time @25° C	Hrs	6	±10%	-
Curing Time @50° C	Hrs	0.6	±10%	-
Curing Time @80° C	Hrs	0.08	±10%	-
Standard Package	-	Pot	-	-
Hardness	Shore OO	90	±10	-
Mixing Ratio	gram	1:1	-	-

▶ Component A & Component B are mixed material. It is normal to cause precipitation and stratification due to different density. Well mixed component A before use by a flat spatula or other stainless tools to achieve the ideal thermal conductivity.



TG-APC Series

Non-silicone Thermal Pad

REACH Compliant | RoHS Compliant | UL Comparable

Features

- Non siloxane and oil-bleed
- Ultra soft and great elongation
- Electrical insulation
- Very low thermal impedance

Application:

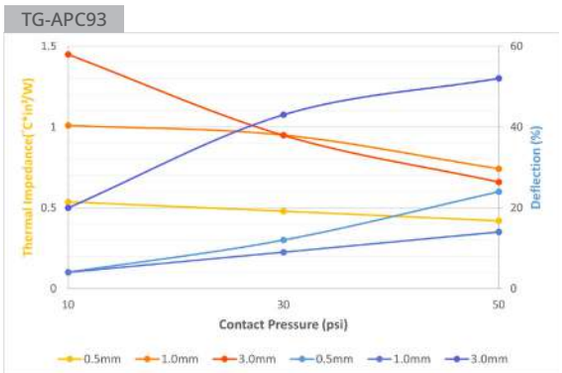
Applications that require no silicone

Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

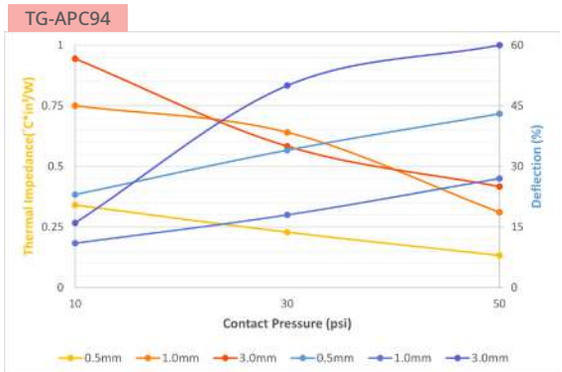
Properties

Contact Pressure, Thermal Impedance, and Deflection

TG-APC93



TG-APC94



Properties	Unit	TG-APC93 / PC93	TG-APC94 / PC94	Tolerance	Test Method
Thermal Conductivity	W/m•K	2.1	4.2	±10%	ASTM D5470 Modified
Thickness	mm	0.5~5.0		-	ASTM D374
	inch	0.0197~0.1969		-	ASTM D374
Color	-	Gray	Red	-	Colorimeter CIE 1976
Flame Rating	-	V-0		-	UL 94
Dielectric Breakdown Voltage	KV/mm	≥10.2		-	ASTM D149
Weight Loss	%	<1		-	ASTM E595 Modified
Density	g/cm^3	2.1	2.5	±0.2	ASTM D792
Operating Temperature	° C	-30~+125		-	-
Volume Resistivity	Ohm-m	$>10^{10}$		-	ASTM D257
Elongation	%	350	100	-	ASTM D412
Tensile Strength	kgf/cm^2	1	2		ASTM D412
Standard Format	-	Sheet		-	-
Hardness	Shore OO	55	50	±10	ASTM D2240

※ For thicknesses less than 1.0mm, hardness will be adjusted to 50-75 Shore OO to facilitate effective removal of liner during production
※ Different tolerances according to the selected thickness
※ Die-cut for different shapes

TG-N909

Non-silicone Thermal Paste

RoHS Compliant

Features

- High thermal conductivity
- Silicone oil free
- No overflow
- Low thermal impedance / thermal resistance
- Non silicone based and environmental friendly

Application:

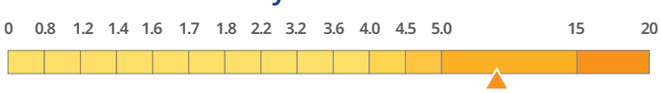
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Storage:

Thermal grease has a shelf-life of 12 months from the date of manufacture, as indicated by the lot number, when stored in the original, unopened container at, or below 25°C.

Properties

Thermal Conductivity : 9 W/m•K



Properties	Unit	TG-N909	Tolerance	Test Method
Thermal Conductivity	W/m•K	9	±10%	ASTM D5470 Modified
Color	-	Gray	-	-
Oil Dispersible	wt%	<0.1	-	24hr @150° C
Weight Loss	wt%	<0.1	-	ASTM E595 Modified
Viscosity	Pa·s	300	±100	Brookfield
Density	g/cm^3	2.85	±5%	ASTM D792
Operating Temperature	° C	-40~+200	-	-
Volume Resistivity	Ohm-m	>10^{13}	-	ASTM D257
Standard Package	-	Pot	-	-

▶ If an oil layer occurs on top of the thermal grease, it belongs to a normal phenomenon. We suggest to stir it evenly before usage.
Please avoid any dust or impurity adhering to the thermal grease. This will increase the thermal resistance and reduce the effectiveness of heat dissipation.
Condition of storage once opened: Constant temperature or cold storage, temperature between +5℃~+15℃. Please consume it within six months.

TG-NSP25

Non-silicone Thermal Putty

RoHS Compliant

Features

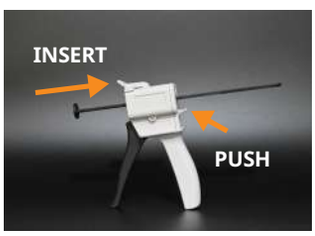
- Silicone free thermal gel
- Shapeable and compressible
- Low thermal impedance
- No fluidity

Application:

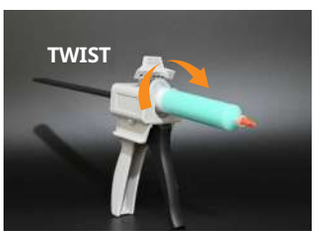
Best for high-speed or middle-power chipset

Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Operation Manual



① Push the latch and insert the stick.



② Put the tube in and twist.

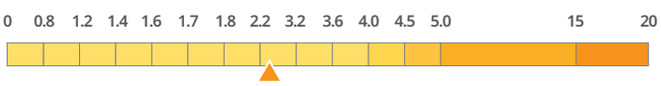

③ Close the cover.

④ Take off the plug.

The putty in the picture does not represent the actual product.)

Properties

Thermal Conductivity : 2.6 W/m•K



Properties	Unit	TG-NSP25	Tolerance	Test Method
Thermal Conductivity	W/m•K	2.6	±10%	ASTM D5470 Modified
Color	-	Gray	-	-
Viscosity @0.5rpm	Pa·s	5000	-	Brookfield
Density	g/cm^3	2.6	-	ASTM D792
Low MW Siloxane (D3-10)	ppm	0	-	GC/MS
Volume Resistivity	Ohm-m	10^{14}	-	ASTM D257
Operating Temperature	° C	-50~+150	-	-
Standard Package	-	Tube/Pot	-	-

TG-N8000

Non-silicone Thermal Putty

REACH Compliant | RoHS Compliant

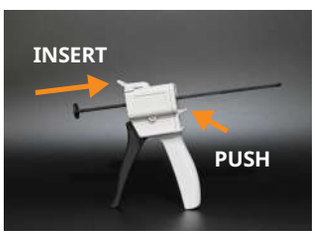
Features

- Silicone free thermal gel
- Lower contact thermal impedance than thermal pads
- Physical property in between liquid and solid state
- Gap fillers for uneven or irregular surfaces of heat sources and heat sink
- Applicable for dispenser

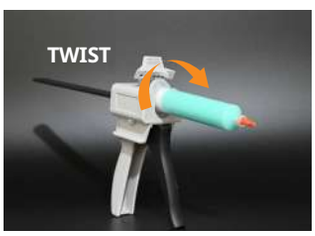
Application:

Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Operation Manual



① Push the latch and insert the stick.



② Put the tube in and twist.

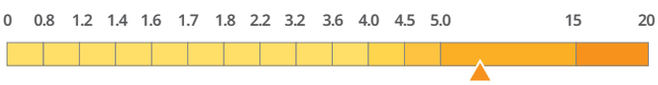

③ Close the cover.

④ Take off the plug.

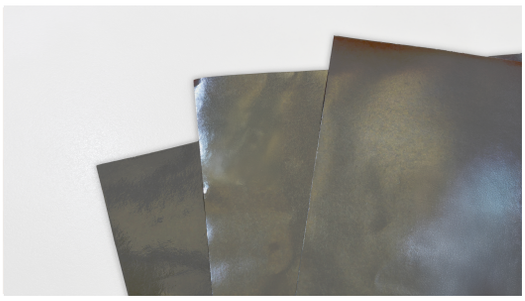
The putty in the picture does not represent the actual product.)

Properties

Thermal Conductivity : 8.0 W/m•K



Properties	Unit	TG-N8000	Tolerance	Test Method
Thermal Conductivity	W/m•K	8.0	-	ASTM D5470 Modified
Color	-	Yellow	-	-
Viscosity	Pa·s	430	±100	Brookfield
Density	g/cm^3	3	±0.15	ASTM D792
Volume Resistivity	Ohm-m	>10^{10}	-	ASTM D257
Operating Temperature	° C	-40~+125	-	-
Standard Package	-	Tube/ Pot	-	-



T62
Graphite Sheet

REACH Compliant RoHS Compliant

Features

- Ultra high thermal conductivity
- Easy to assemble
- Low mass and space saving
- EMI reduction

Application:

Suitable for products requiring flat temperature

Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Properties

Properties	Unit	T62	T62-1	T62-2	Tolerance	Test Method
Thermal Conductivity (XY axis)	W/m•K	400			-	AC Calorimeter
Thermal Conductivity (Z axis)	W/m•K	20	15	5	±10%	Laser Flash
Thickness	mm	0.13	0.16	0.2	±0.03	Micrometer
	inch	0.0051	0.0063	0.0079	-	-
Color	-	Black			-	-
Structure	-	Graphite	Graphite Adhesive	PET Graphite Adhesive	-	-
Density	g/cm³	1.5	1.5~1.8		±5%	ASTM D792
Graphite Contained	%	>98			-	-
Operating Temperature	° C	-40~+400	-30~+100		-	-

※Die-cut for different shapes
※Available to apply adhesive
※For other thickness, please contact product consultant.

T68
Synthetic Graphite Sheet

REACH Compliant | RoHS Compliant

Features

- Ultra high thermal conductivity, electrical conductivity and EMI shielding
- Flexible and bendable
- Ultra thin, low mass, environmental friendly

Application:

Suitable for products requiring flat temperature

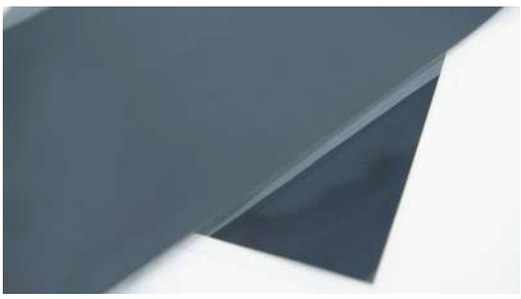
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Properties

Properties	Unit	T68	Tolerance	Test Method
Thermal Conductivity (XY axis)	W/m•K	1500	±100	AC Calorimeter
Thermal Conductivity (Z axis)	W/m•K	5	±10%	Laser Flash
Thickness	μm	25	-	Micrometer
Thermal Diffusivity	cm^2/s	8.5	±0.5	AC Calorimeter
Density	g/cm^3	2.1	±5%	Archimedes Law
Electrical Conductivity	S/cm	>13000	-	JIS K7194
Bending Test	times	10000	-	-
Operating Temperature	° C	-40~+400	-	AC Calorimeter
Heat Capacity (SHC)	J/g-K	0.895		-

Properties	T68	T68A	T68AP	T68APF
Processing	No processing	With insulating double-sided adhesive tape underneath (10μm/30μm)	1. Standard PET tape on the top (10μm/30μm) 2. Insulating 2-sided adhesive tape on the bottom (10μm/30μm)	1. Standard PET tape on the top (10μm/30μm) 2. Insulating 2-sided adhesive tape on the bottom (10μm/30μm) 3. Edge banding
Structure	Graphite Sheet	Graphite Sheet 2-Sided Adhesive Tape Release Paper	PET Tape Graphite Sheet 2-Sided Adhesive Tape Release Paper	PET Tape Graphite Sheet 2-Sided Adhesive Tape Release Paper
Feature	· Great thermal conductivity and softness · Low thermal resistance · Working temperature up to 400°C · Electrically conductive	· Insulating and adhesive on one side · Great adhesion, stick closely to the case · Breakdown voltage: 1KV	· Both surfaces electrically isolated · PET Tape: 1KV · 2-sided adhesive tape: 1KV	· Both surfaces electrically isolated · PET Tape: 1KV · 2-sided adhesive tape: 1KV
Heat Resistant Temperature	400°C	100°C	80~100°C	80~100°C
Total Thickness	25μm	35μm/55μm	45μm/85μm	45μm/85μm

※Die-cut for different shapes
※Available to apply adhesive



TG-P100 Series
Graphene

RoHS Compliant

Features

- Ultra thin and low mass
- Applicable for unventilated design
- No dusting issue

Application:

Suitable for products requiring flat temperature

Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Properties

Properties	Unit	TG-P10050	TG-P10090	Tolerance	Test Method
Thermal Conductivity (XY axis)	W/m•K	1500~1800		-	AC Calorimeter
Thermal Conductivity (Z axis)	W/m•K	12		-	Laser Flash
Total Thickness	µm	50	90	-	Meter
Copper Foil Thickness	µm	35	75	-	Meter
Coating Thickness	µm	15	15	-	Meter
Vertical Resistivity (XY axis)	Ohm-inch^2	2.57		-	QJ1523-1988
Parallel Resistivity (Z axis)	Ohm-inch^2	0.66		-	QJ1523-1988
Cross-cut Tape Test	-	4B		-	ASTM D3359B
Pencil Hardness Test	-	2H		-	ASTM D3363
Solvent Resistance (Alcohol)	-	Pass(5 times)		-	ASTM D5402
Rubber Abrasive Test	-	Pass(150 times)		-	ASTM D7835
High Temperature & Humidity Test @85° C/85%RH	-	Pass(500 hrs)		-	IEC-60068-2-78
Thermal Shock Test @-20~+80° C	-	Pass(500 cycles)		-	IEC-60068-2-14
Temperature Range	° C	-20~+120		-	ISO 16750-4

※Die-cut for different shapes

TG-V Series

Phase Change Materials

REACH Compliant RoHS Compliant

Features

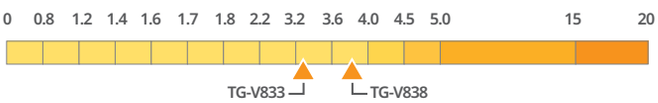
- Good flow rate over phase change temperature
- Fully filled the gaps of contact surface
- Low thermal impedance

Application:

Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

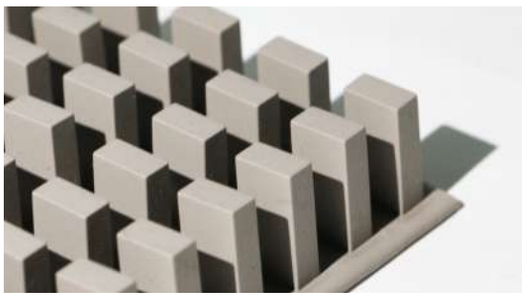
Properties

Thermal Conductivity : 3.3(TG-V833) / 3.8(TG-V838) W/m•K



Properties	Unit	TG-V833	TG-V838	Tolerance	Test Method
Thermal Conductivity	W/m•K	3.3	3.8	±10%	ASTM D5470 Modified
Thickness	mm	0.13		-	ASTM D374
	inch	0.005		-	ASTM D374
Color	-	Gray		-	-
Phase Transition Temperature	° C	50		-	-
Breakdown Voltage(AC)	KV	≥1		-	ASTM D149
Density	g/cm^3	3.4	2.5	±0.3	ASTM D792
Operating Temperature	° C	-40~+125		-	-
Volume Resistivity	Ohm-m	3×10^{11}	3×10^{10}	-	ASTM D257
Thermal Impedance @10psi	°C *in^2/W	0.621	0.546	-	ASTM D5470 Modified
Thermal Impedance @30psi	°C *in^2/W	0.544	0.487	-	ASTM D5470 Modified
Thermal Impedance @50psi	°C *in^2/W	0.512	0.454	-	ASTM D5470 Modified
Dielectric Constant @1MHz	-	13.3		-	ASTM D150

※Die-cut for different shapes



CP Series
End Cap

Features

- Low thermal contact impedance and buffer effect
- Good electrical insulation
- Decrease the weight of the product
- Easy to assemble

Application:

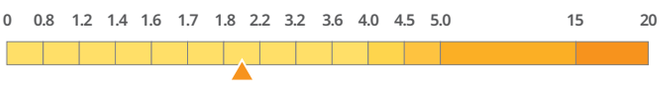
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Standard Sizes (mm):

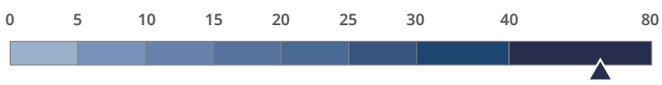
1. CP22 TO-220: 11.4x16x5.8
2. CP23 TO-220: 11.4x21.5x5.8
3. CP33 TO-247: 17.5x28.5x5.8

Properties

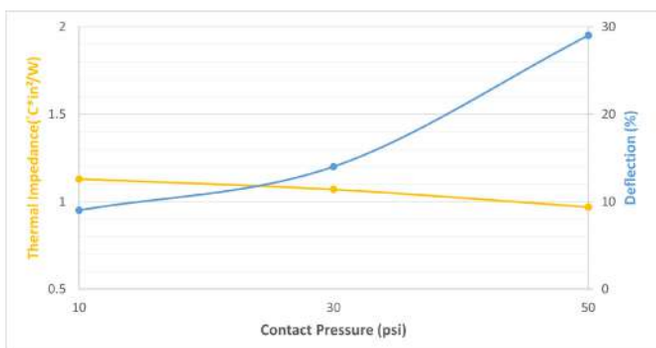
Thermal Conductivity : 2 W/m•K



Hardness : 65 (Shore A)



Contact Pressure, Thermal Impedance, and Deflection



Properties	Unit	CP22/CP23/CP33	Tolerance	Test Method
Thermal Conductivity	W/m•K	2	±10%	ASTM D5470 Modified
Thickness	mm	0.3/0.45	-	ASTM D374
Color	-	Gray	-	-
Material	-	Silicone	-	-
Operating Temperature	° C	-45~+180	-	-
Density	g/cm^3	2.55	±5%	ASTM D792
Dielectric Breakdown Voltage (AC)	KV	≥4.1/≥6.1	-	ASTM D149
Dielectric Breakdown Voltage (DC)	KV	≥6.1/≥8.1	-	ASTM D149
Dielectric Constant	1000Hz	5.8	-	ASTM D150
Thermal Impedance@10psi	° C*in^2 / W	1.13		ASTM D5470 Modified
Thermal Impedance@20psi	° C*in^2 / W	1.07	-	ASTM D5470 Modified
Thermal Impedance@50psi	° C*in^2 / W	0.97	-	ASTM D5470 Modified
Hardness	Shore A	65	±7	ASTM D2240

Ti900

Thermally Conductive Insulators

REACH Compliant | RoHS Compliant | UL Comparable

Features

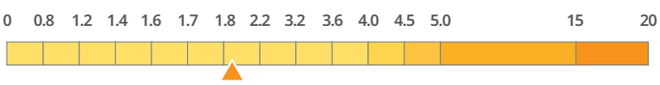
- Electrical insulation
- Low thermal impedance
- Easy to assemble

Application:

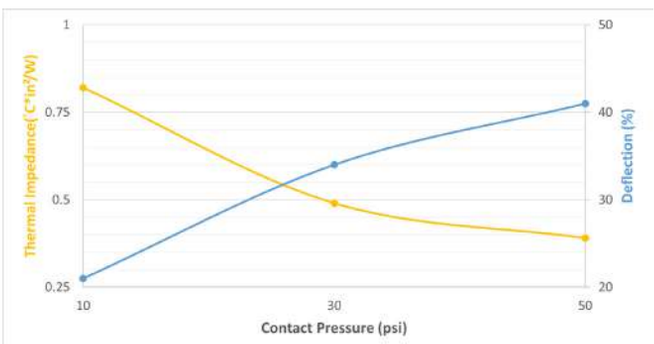
Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Properties

Thermal Conductivity : 1.9 W/m•K



Contact Pressure, Thermal Impedance, and Deflection



Properties	Unit	Ti900	Tolerance	Test Method
Thermal Conductivity	W/m•K	1.9	±10%	ASTM D5470 Modified
Thickness	mm	0.12	-	ASTM D374
Color	-	Gray	-	-
Base	-	Polyimide	-	-
Dielectric Breakdown Voltage (AC)	KV	≥6.1	-	ASTM D149
Volume Resistivity	Ohm-m	$>10^{12}$	-	ASTM D257
Operating Temperature	° C	-50~+180	-	-
Tensile Strength	psi	5000	-	ASTM D412
Elongation	%	40	-	ASTM D412
Flame Rating	-	V-0	-	UL94
Standard Format	-	Sheet	-	-

※Die-cut for different shapes

TG-FAM

Flexible Absorbing Material

RoHS Compliant

Features

- Effective EMI suppression in a wide frequency range
- Ultra thin, extremely flexible and easy to use
- Compatible with UL certified doubled-sided insulating tapes
- Antiresonance and de-coupling
- High surface impedance
- Easy to be cut into any shape

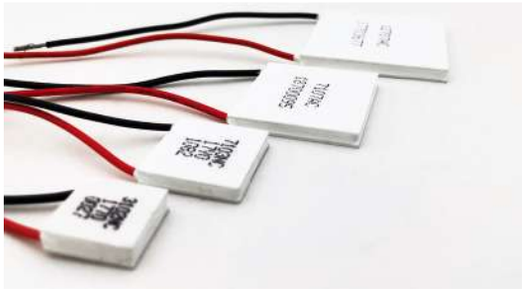
Application:

Electronic Components - Electronic components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

In addition to EMI-suppressions, FAM can handle the issue when RFID tags attached to metal (by recovering up to 80% of the reading distance from RFID reader). It is suitable for LF(125KHz) and HF(13.56MHz) bands. This helps to save the space from RFID antenna to metal. By this way can save the space from RFID to metal.

Properties

Physical Properties	Unit	TG-FAM1	TG-FAM3	TG-FAM6	TG-FAM7
Frequency	GHz	0.001~18.0		0.001~9.0	0.001~3.0
Thickness	mm	0.12~2.50	0.25/0.50/0.75	0.05/0.1/0.2/0.3/0.5	0.08/0.12/0.22
Maximum Size	mm	400×400		210×297 (A4 Size)	130×130
Material	-	Magnetic Particles + Rubber			Sintering Iron-Core
Magnetic Inductivity (μ'@1MHz)	-	25	50	170	140
Halogen	-	Halogen Contained		Halogen Free	
Operating Temperature	° C	-40~+85		-40~+155	-30~+120
Density	g/cm³	3.6	4.8	4.4	3.8
Surface Resistance	Ohm	10^6	10^6	10^5	10^9
Structure	-	FAM 2-Sided Adhesive Tape Release Paper Adhesive Tape Options (No/Sigle-Side/Dual-Side)			PET Tape FAM 2-Sided Adhesive Tape Release Paper Optional Dual-Side Adhesive Tapes



Thermoelectric Cooling Chip

Features

- Small bulk and light weight
- No vibration and noise-free
- Precise temperature control
- High reliability

Application:

Rugged environment durable

It's widely used in medical equipment, freezer, drinking fountains, military petroleum instruments as these applications need thermal cycling control. Besides, it's also widely being applied to control the temperature during fabrication of semiconductor.

Properties

Size(mm)	Height(mm)	Imax(A)	Vmax(V)	Watt(W)	Qmax(W) @27°C	Qmax(W) @50°C	R(Ohm)
15×15	3.1	6.0	3.8	22.8	13	14.3	0.45±10%
	3.4	8.5	2.1	17.9	10.3	11.3	0.20±10%
	3.6	3.9	3.8	14.8	8.6	9.5	0.85±10%
	3.8	3.0	3.8	11.4	7.3	8	1.00±10%
	3.9	6.0	2.1	12.6	7.4	8.2	0.30±10%
	4.7	2.0	3.8	7.6	4.4	5	1.65±10%
20×20	3.1	6.0	8.8	52.8	29.7	32.7	1.05±10%
	3.4	8.5	3.8	32.3	18.8	20.8	0.35±10%
	3.6	3.9	8.8	34.3	18.7	20.9	1.95±10%
	3.8	3.0	8.8	26.4	16.6	18	2.20±10%
	3.9	6.0	3.8	22.8	13.6	14.9	0.55±10%
	4.7	2.0	8.8	17.6	10.2	11.2	3.70±10%
30×30	3.15	6.0	15.7	94.2	53.1	59.1	1.90±10%
	3.45	8.5	8.8	74.8	43.1	48	0.85±10%
	3.65	3.9	15.7	61.2	35.2	39	3.50±10%
	3.85	3.0	15.7	47.1	29.8	32.5	4.00±10%
	3.95	6.0	8.8	52.8	31.1	34.2	1.25±10%
	3.95	6.0	11.8	70.8	48	52.8	1.65±10%
	4.75	2.0	15.7	31.4	18.2	19.5	6.70±10%
40×40	3.45	8.5	15.7	133.5	77.1	85	1.50±10%
	3.95	6.0	15.7	94.2	55.6	61	2.20±10%

▶ For special sizes, please contact our product consultants.

Heat Pipe

Features

- A conversion of the density of heat flux
- Fast heat balancing
- Passive components
- Light weighted

Application:

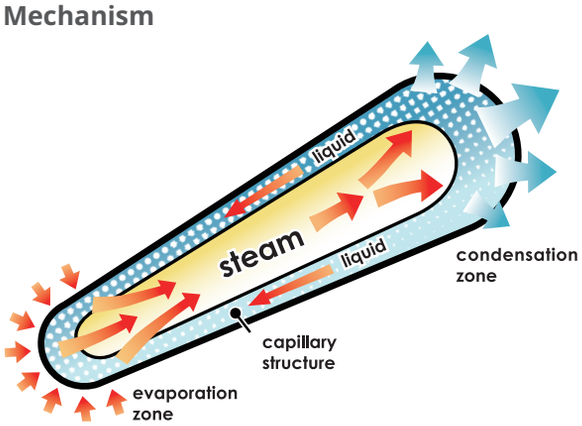
Applicable industries from small to large scale of products

Electronic components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Properties

General Specifications
· Length: 100~350mm · Flattening thickness: half of the diameter 1/2Ø e.g. Ø6 = 3mm · Bending angle R: 3 times of the diameter >3*Ø e.g. Ø6 =18mm · Bending angle : more than 120 degrees

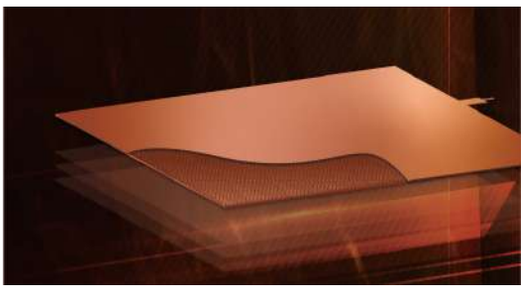
Mechanism



Diameter(mm)	Thickness(mm)	Width(mm)
Ø4	2	5.65
	2.5	5.55
	3	5.45
Ø5	2	6.91
	2.5	6.59
	3	6.32
	3.5	6.01
	4	5.68
Ø6	2	8.50
	2.5	8.18
	3	7.95
	3.5	7.65
	4	7.39
Ø8	2	11.65
	2.5	11.39
	3	11.15
	3.5	10.83
	4	10.60
	4.5	10.27
	5	10.01
	6	9.36

· Thickness Tolerance:+0.05/-0.10 mm
· Width Tolerance:+0.15/-0.20 mm

▶ Customizable per customer's requirement.



Vapor Chamber

Features

- Two-dimentional heat transfer
- Passive component
- High stability
- 10 times efficiency higher than heat pipe

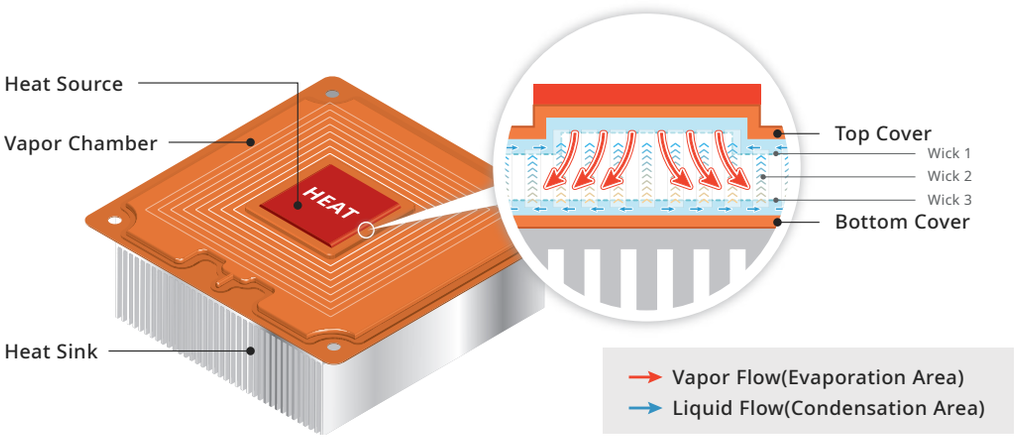
Industries:

Best for high performance applications

Electronic components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Mechanism

Vapor chamber is two-dimensional thermal conduction. Therefore, it is a more efficient heat dissipation way for solve higher level thermal problem. The inside of vapor chamber is a capillary structure vacuum chamber. After the working fluid absorbs the heat, it will vaporize rapidly and flow to cooling zone. When it exchanged heat with the external, it will condense back to fluid and flow back to heat zone. This is the circulation of vapor chamber.



Project process

Step 1 | RFQ
Submission of technical requirement through T-Global Website

Step 2 | Specification
Configuration of heat allocation, source area and power

Step 3 | Proposal
System analysis with solution

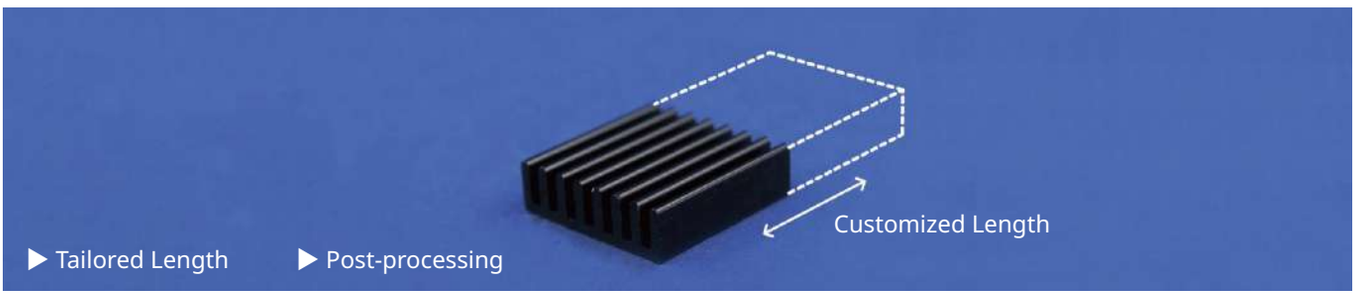
Step 4 | Kick off
Milestones per production plan

Design Guide

※ Heat Size 30X30 mm

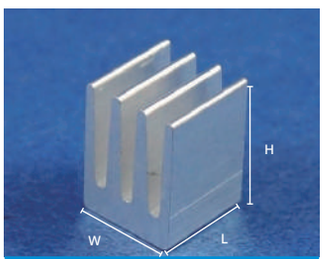
Q-Max / Size (mm)	Thickness (mm)		
	2.0	3.0	4.0
60X80	50	70	90
90X90	80	120	160
100X100	140	200	260
120X80	130	200	250
180X150	160	250	300
200X120	200	300	400
350X100	220	350	450

Different industries will require different specifications, please contact us direcly for the most suitable specifications.

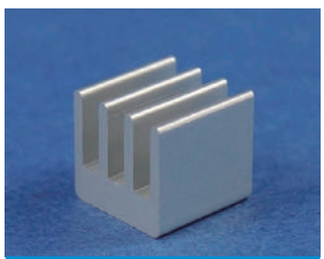


Heat sinks (mainly made by aluminum or copper) is a kind of metal contain high thermal dissipation ability, light weight and easy for machining. It is one of the popular heat dissipation products and can stick on the surface of heat source. How to increase the thermal conductivity and heat dissipation surface in order to increase the product’s heat dissipation efficiency challenging. Stamping, extrusion, die casting and forging are the way of producing heat sinks. These products can be the main components of heat dissipation and/or their structured shell for various applications.

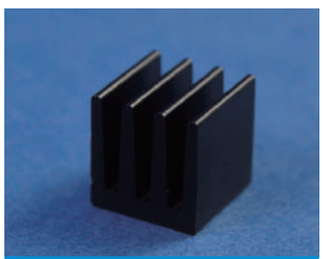
▶ Basic Model L × W × H



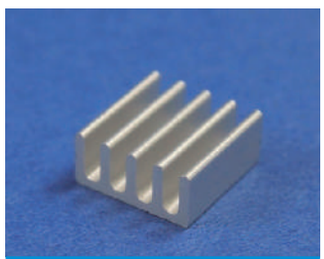
TGH-0075-01	
7.5×7.5×10mm	1g
Wash	AL6063



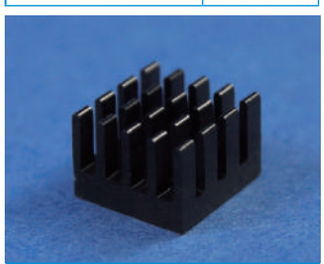
TGH-0100-01	
10×10×9.5mm	1.5g
Anodizing aluminum color	AL6063



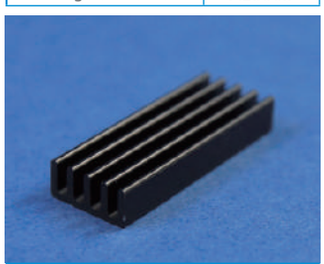
TGH-0124-01	
12.4×12.4×13mm	3g
Anodizing black	AL6063



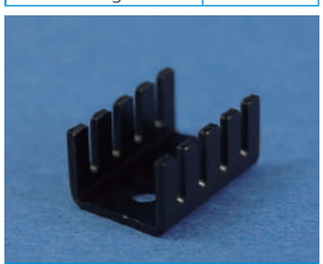
TGH-0130-01	
13×13×6mm	2g
Anodizing aluminum color / Black	AL6063



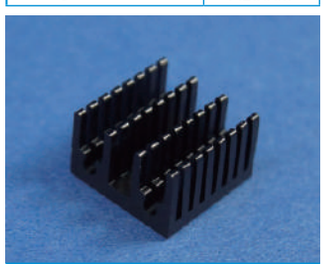
TGH-0130-02	
13×13×9.1mm	2g
Anodizing black	AL6063



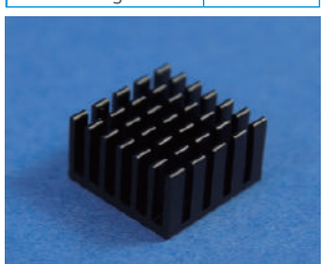
TGH-0130-03	
13×35×6mm	4g
Anodizing black	AL6063



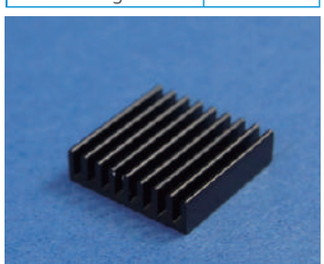
TGH-0132-01	
13.2×19×9.65mm	1.5g
Anodizing black	AL1050



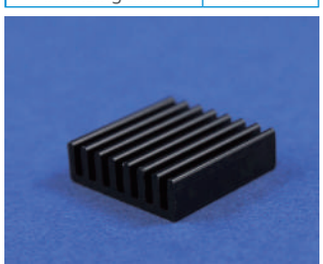
TGH-0164-01	
16.4×16×10mm	3g
Anodizing black	AL6063



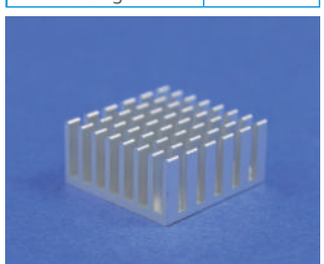
TGH-0170-01	
17×17×9.5mm	3g
Anodizing black	AL6063



TGH-0190-01	
19.05×19.05×5.08mm	3g
Anodizing black	AL6063

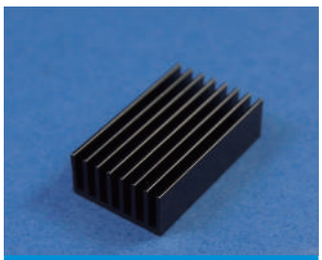


TGH-0200-02	
20×20×6mm	4g
Anodizing black	AL6063

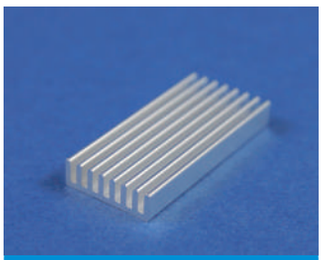


TGH-0200-03	
19.7×20×9.5mm	4g
Anodizing aluminum color	AL6063

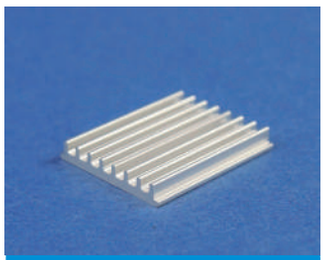
▶ Basic Model L × W × H



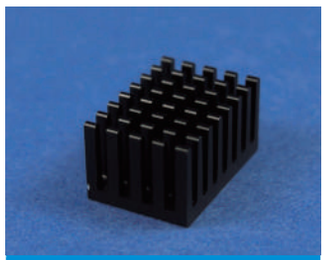
TGH-0200-05	
19.7×33×9.5mm	8g
Anodizing black	AL1050



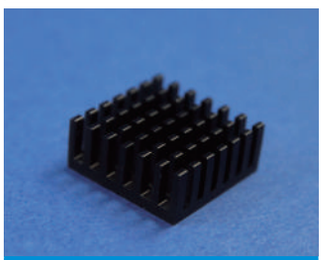
TGH-0200-06	
20×44×6mm	9g
Anodizing aluminum color	AL1050



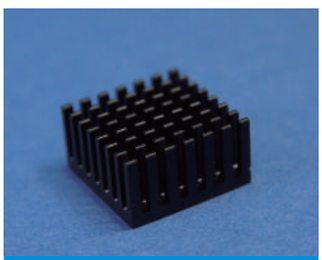
TGH-0210-01	
21×25×3.5mm	3g
Anodizing aluminum color / Black	AL6063



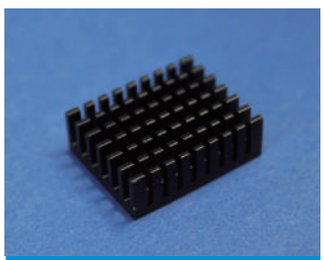
TGH-0220-02	
15×22×11.7mm	4g
Anodizing black	AL6063



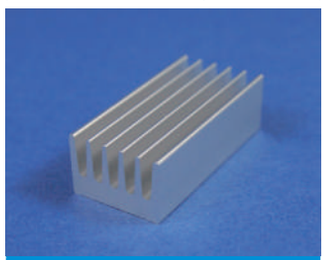
TGH-0220-03	
22×22×9mm	5g
Anodizing black	AL6063



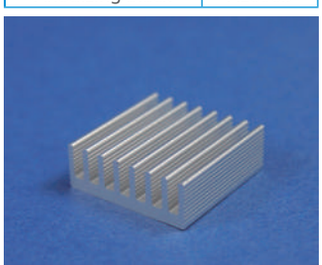
TGH-0220-04	
22×22×11.7mm	7g
Anodizing black	AL6063



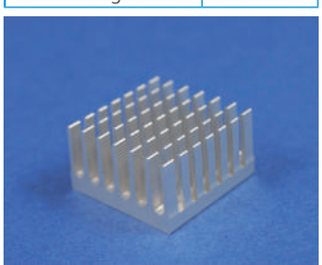
TGH-0220-06	
22×27×9mm	6g
Anodizing black	AL6063



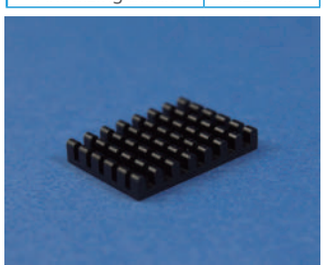
TGH-0220-07	
22×45×14.5mm	23g
Anodizing aluminum color	AL6063



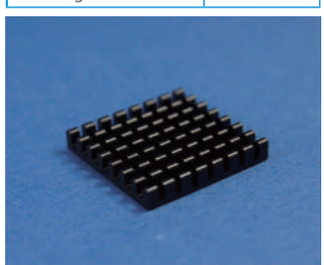
TGH-0250-01	
25.31×25×9mm	9g
Anodizing aluminum color	AL6063



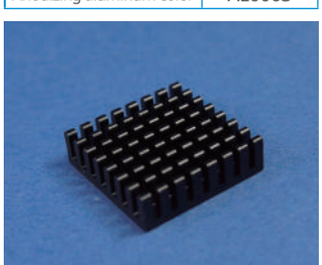
TGH-0260-02	
26×26×14.8mm	10g
Anodizing aluminum color	AL6063



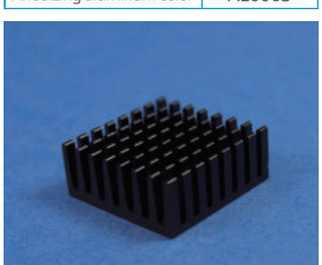
TGH-0280-01	
20×27.8×4.5mm	4g
Anodizing black	AL6063



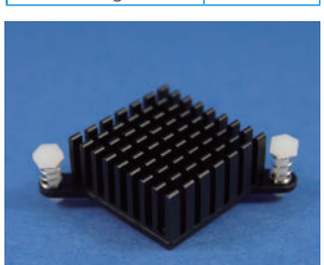
TGH-0280-02	
28.1×27.8×4.5mm	5g
Anodizing black	AL6063



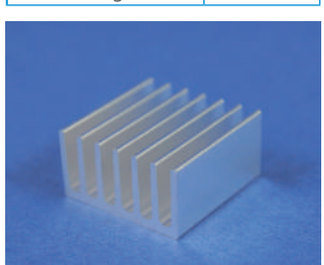
TGH-0280-04	
28×28×8mm	8g
Anodizing black	AL6063



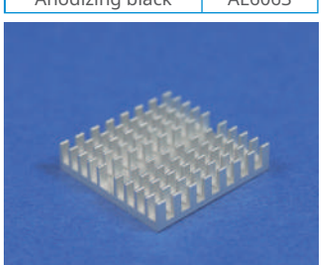
TGH-0280-05	
28×27.9×11.4mm	10g
Anodizing black	AL6063



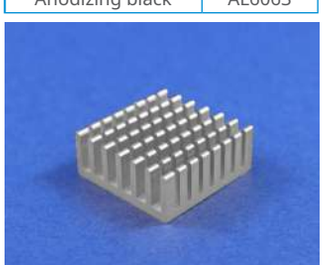
TGH-0280-06	
28×28×12.7mm	12g
Anodizing black	AL6063



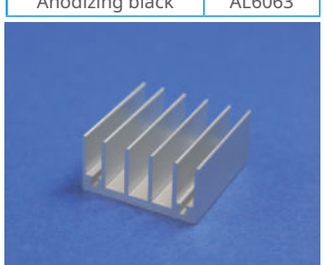
TGH-0280-07	
28×28×15mm	16g
Anodizing aluminum color	AL6063



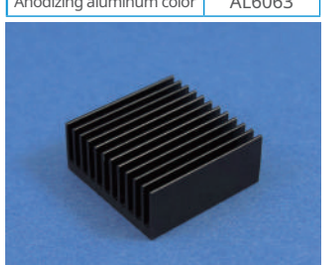
TGH-0300-01	
30.03×29.9×6.55mm	6g
Anodizing aluminum color	AL6063



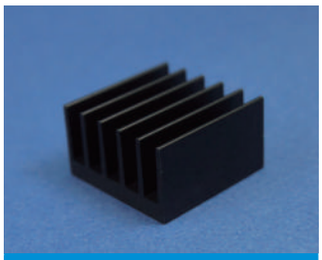
TGH-0300-03	
30×30×12mm	12g
Anodizing aluminum color	AL6063



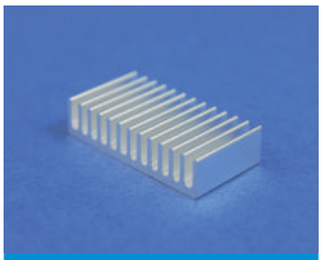
TGH-0300-04	
30×30×15mm	13g
Anodizing aluminum color	AL6063



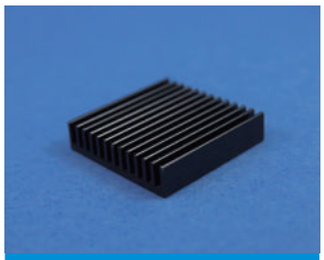
TGH-0350-03	
35×35×15mm	24g
Anodizing black	AL6063



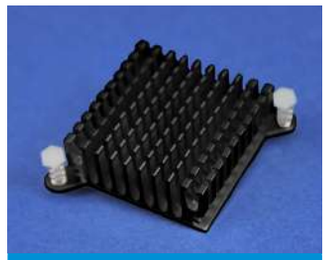
TGH-0350-04	
35×35×20mm	30g
Anodizing black	AL6063



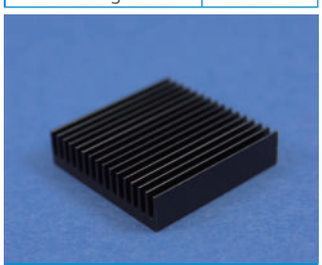
TGH-0380-01	
38×20×9mm	10g
Wash	AL6063



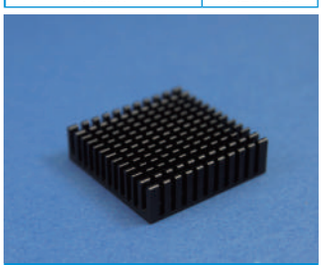
TGH-0380-03	
38×38×9mm	19g
Anodizing black	AL6063



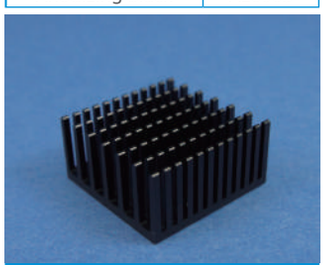
TGH-0380-05	
38×38×15mm	19g
Anodizing black	AL6063



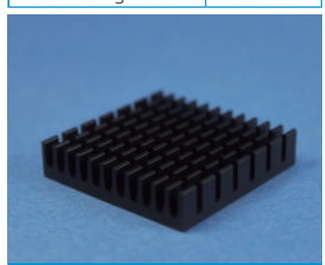
TGH-0400-01	
40×40×10mm	24g
Anodizing black	AL6063



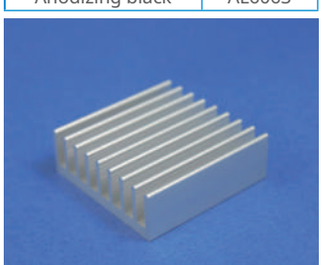
TGH-0400-03	
40×40×11mm	17g
Anodizing black	AL6063



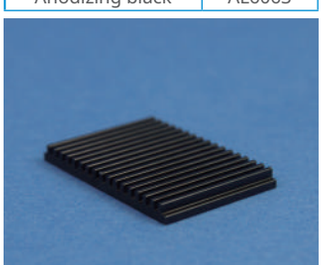
TGH-0400-04	
40×40×20mm	26g
Anodizing black	AL6063



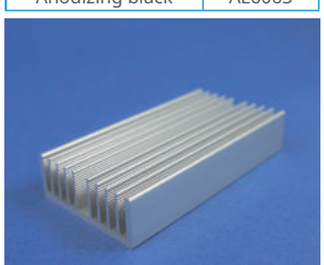
TGH-0450-01	
45×45×10mm	27g
Anodizing black	AL6063



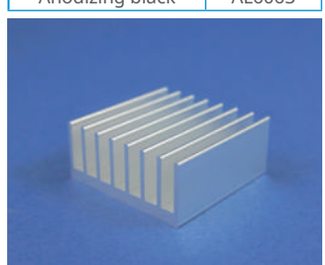
TGH-0500-01	
50×50×17mm	56g
Anodizing aluminum color / Black	AL6063



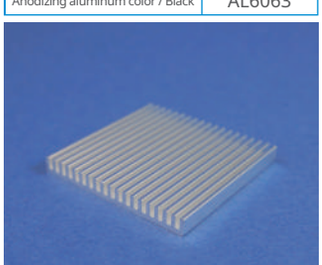
TGH-0510-01	
51×35×5mm	17g
Anodizing black	AL6063



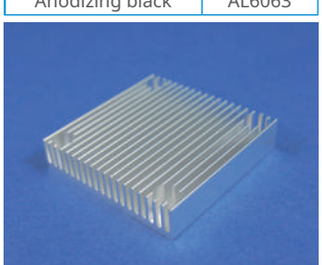
TGH-0510-02	
51×100×20mm	113g
Anodizing aluminum color / Black	AL6063



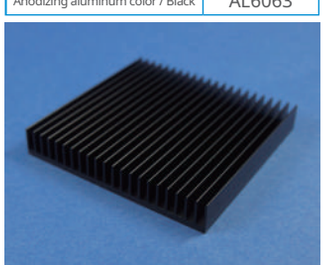
TGH-0522-01	
52.2×52.2×23mm	74g
Anodizing aluminum color	AL6063



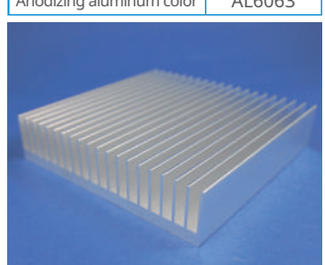
TGH-0550-01	
55×55×6mm	32g
Anodizing aluminum color	AL6063



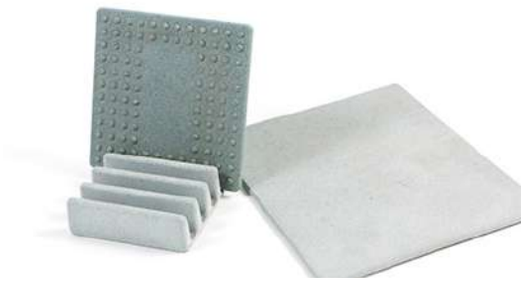
TGH-0610-01	
61×61×12.7mm	67g
Anodizing aluminum color	AL6063



TGH-0955-01	
95.5×95.5×14.3mm	134g
Anodizing Black / aluminum color	AL6063



TGH-1535-01	
153.5×150×34mm	906g
Anodizing aluminum color	AL6063



XL-25
Ceramic Heat Spreader

REACH Compliant | RoHS Compliant

Features

- Open-porous structure for more air-contact area
- Best for limited space
- High breakdown voltage & high surface impedance
- Low thermal expansion coefficient
- EMI suppression
- Durable for thermal shock

Application:

Can adapt to dramatic environmental changes

Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

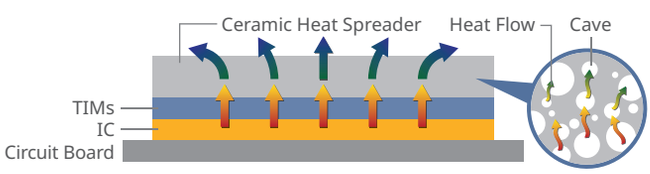
Standard Sizes (mm):

01. 10x10x2.0(flat)
02. 15x15x2.5(flat)
03. 15x15x5.0(fin)
04. 20x15x2.0(flat)
05. 20x20x2.0(flat)
06. 20x20x2.5(flat)
07. 22x22x2.5(flat)
08. 30x30x2.0(flat)
09. 30x30x2.5(flat)
10. 30x30x5.0(fin)
11. 35x35x10.0(fin)
12. 40x40x2.5(flat)
13. 40x40x3.0(embossed)
14. 40x40x5.0(fin)
15. 40x40x10.0(fin)
16. 50x50x3.0(embossed)
17. 50x50x5.0(fin)
18. 50x50x10.0(fin)

Mechanism

Aca ≒ 5 x Aal

The air-contact area of ceramic heat spreader is nearly 5 times of aluminum heat sink, under the same volume. In the same condition of air flow rate, ceramic heat spreaders can perform better. The more contact areas, the more heat can be exchanged by the cooler air.



Qt ∞ S x A
Qt: The heat would be taken by air flow.
S: Air flow(m/s) A: Air contact area (m2)
Aca: Air contact (m^2) of ceramic heat sink
Aal: Air contact (m^2) of aluminium heat sink

Properties

Properties	Unit	XL-25	Tolerance	Test Method
Thermal Conductivity	W/m•K	10	±0.67	-
Color	-	Gray/Green	-	-
Dielectric Breakdown Voltage	KV/mm	≥0.5	-	ASTM D149
Bulk Density	g/cm^3	1.89	±0.18	CNS 619
Flexural Strength	kgf/cm^2	47.5	-	CNS 12701
Porosity	%	25	-	CNS 619
Water Absorption	%	16	-	CNS 619
Operating Temperature	° C	<500	-	-
Linear Temperature Expansion Coefficient	10^{-6}	4.13	-	RT~300° C
Main Composition	-	$SiC/Al_2O_3/SiO_2$	-	-
Hardness	Moh's	5~6	±0.6	DIN En101-1992

※For special sizes, please contact us.

XL-25W/XL-25D Series
Ceramic Heat Spreader

Features

- Best for limited space
- Low thermal expansion coefficient
- Reliable insulation performance
- Low thermal expansion coefficient
- Non-toxic and durable for high temperature
- Durable for thermal shock

Application:

Adative to dramatic environmental changes

Electronic Components - 5G, Aerospace, AI, AIoT, AR/VR/MR/XR, Automotive, Consumer Devices, Datacom, Electric Vehicle, Electronic Products, Energy Storage, Industrial, Lighting Equipment, Medical, Military, Netcom, Panel, Power Electronics, Robot, Servers, Smart Home, Telecom, etc.

Standard Sizes (mm):

01. TO-220 20x14x0.635
02. TO-220 20x14x1.0
03. TO-220 12x18.5x1.0
04. TO-247 22x17x0.635
05. TO-247 22x17x1.0
06. TO-264 28x22x0.635
07. TO-264 28x22x1.0
08. TO-3P 25x20x0.635
09. TO-3P 25x20x1.0

Properties

Properties	Unit	XL-25W	XL-25D	Test Method
Thermal Conductivity	W/m•K	25	190~210	-
Color	-	White	Dark Gray	-
Dielectric Breakdown Voltage	KV/mm	≥15	≥18.45	ASTM D149
Bulk Density	g/cm^3	≥3.8	3.32	CNS 619
Volume Resistance	Ohm-m	10^{12}	1.4×10^{13}	-
Flexural Strength	kgf/cm^2	4078.8	3416	CNS 12701
Linear Thermal Expansion Coefficient	10^{-6}	6.6~8	2.805	RT~300° C
Main Composition	-	Al_2O_3	AlN	-

Research and Development Equipment

We are experienced in providing a bespoke design service to support diverse market segments, tailoring designs for our customers' specific requirements with flexibility. We use a range of state-of-the-art testing equipment in our labs, and test all our products from prototype to production. This ensures us, and our customers, that the highest standards of quality and performance are attained.

Customization
Professional product consultants provide technical support for individual requirements.

R&D
Exclusive research and development of advanced equipment for rapid processing.

Validation
Standard performance testing methods.

QA
Customized inspections for comprehensive quality control.

Physical Property Tests


Thickness Gauge


Colorimeter


Hydrometer


Tape Initial Adhesion Tester


Viscosity Retention Tester


Hardness Tester


Tensile Tester


Baking Retention Tester


Auto Tester


Viscometer


Computer Servo Controlled Materials Tester

Thermal Performance Tests


Thermal Conductivity and Thermal Resistance Tester


Heat Sink Tester


Multi-Purpose Wind Tunnel


Thermal Diffusivity Tester


Hot Disk

Reliability Tests


Temperature & Humidity Tester


Salty Spray Tester


Freezing Tester


High Temperature Oven


Oven

Electrical Tests


HIPOT Tester


Insulation Tester

Other Tests


Convectional Environmental Test Chamber


X-Ray Fluorescence Spectrometer


Metallographic Microscope

As responsible citizens of the Earth, we aspire to be conscientious stewards of our planet.

As a provider of thermal engineering solutions, T-Global understands that its activities, products and services may affect the environment. In order to mitigate the impact on the environment, the company.

1. Pledges to comply with all environmental regulations and customer requirements for environmental management
2. Pledges to not use banned substances and to treat the ecological environment in a friendly manner
3. Pledges to continuously improve the performance of environmental management and pollution control
4. Conserves resources and recycles waste
5. Takes emergency response measures to ensure workplace safety

RoHS
Restriction of Hazardous Substances Directive

REACH
Registration, Evaluation, Authorization, and Restriction of Chemicals

IATF16949
Automotive Quality Management System

IECQ QC080000
Hazardous Substance Process Management System

ISO14001
Environmental Management System

UL
Product Safety Certification Organizations

ISO9001
Quality Management System

YUSHAN AWARD
Best Product Categories

B Corp
Certified B Corp companies are verified by B Lab to meet the highest standards of social and environmental performance, transparency, and accountability.

Thermal Conductivity Table

	Part No.	K(W/m•K)
Silicone Thermal Pad	GT10D	1.5
	GT15	1.6
	TG-A20KF	1.8
	TG-A20KX	2.0
	GT20	2.1
	TG-A2200	2.2
	TG-A3500F	3.0
	GT30	3.2
	TG-A38KF	3.3
	TG-A3500	3.5
	TG-A38KX	3.8
	TG-A4500F	4.0
	TG-ALC	4.2
	TG-A4500	4.5
	TG-A6200F	5.0
	TG-A6200LC	5.0
	TG-A6200	6.2
	TG-A9000	9.0
	TG-A1250LC	10.5
	TG-A1250	12.5
	TG-A1450	14.5
	TG-A1660	16.6
	TG-A1780	17.8
Thermal Tape	TG-T1000	1.0
	TG-T1000T	1.3
	Li98T	1.3
	Li98C	1.9
	Li98CN	2.1
Thermal Grease	S6060B	1.9
	S6060C	5.3
	TG-S808	8.0
Thermal Putty	TG4040 Putty	3.2
	TG6060 Putty	6.3
	TG-A7000	7.0
Potting Compound	TG-A720AB	0.8
	TG-A09AB	2.1
	TG-A730AB	2.1
	TG-A96AB	2.6
Silicone Free	TG-APC93	2.6
	TG-NSP25	4.2
	TG-N8000	8.0
	TG-APC94	9.0
Misc	Ti900	1.9
	CP Series	2.0
	TG-V833	3.3
	TG-V838	3.8

Other Thermal Conductivity

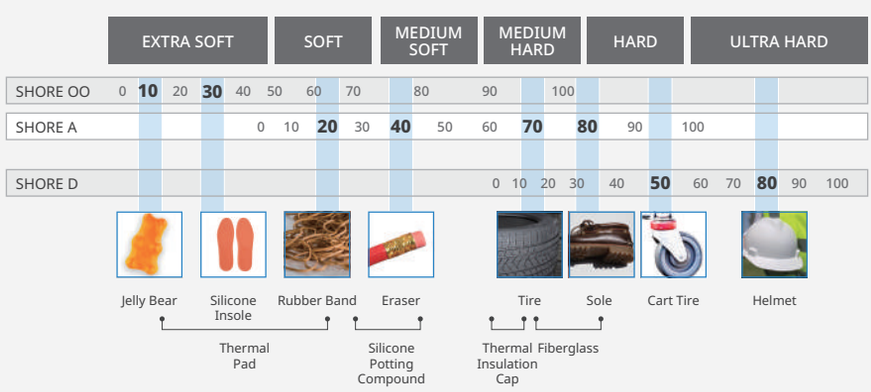
Material	K (W/m•K)
Diamond	2300
Silver	429
Copper	401
Gold	317
Aluminum	237
Iron	80.2
Mercury (Hg)	8.54
Glass	1.4
Brick	0.72

Material	K (W/m•K)
Water	0.613
Skin	0.37
Wood	0.17
Helium	0.152
Silicone Rubber	0.13
Fiberglass	0.043
Air	0.026
PU	0.026

Auxiliary Material

Item	Type
Industrial Grade Functional Tape	Single/Double-Sided Tape, Conductive Tape, Masking Tape... (NOMEX、Kapton、3M、TESA、NITTO、DIC、TERAOKA、SONY、Hi-Bon、SEKISUI...)
Foaming Buffer Material	Foam/UL Foam/Conductive Foam...
PET/Protective Film	Black/White/Transparent Mylar, Electrostatic Film...
Aluminum Foil, Cooper Foil, FR4, Teflon, Nylon...	

Hardness



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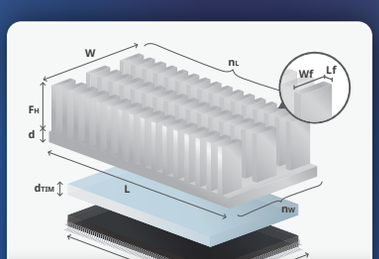
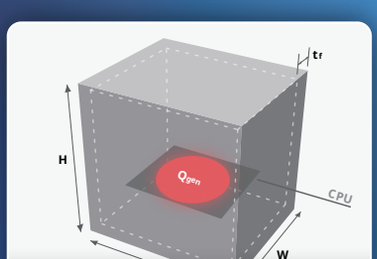
ONLINE INSTANT CALCULATOR

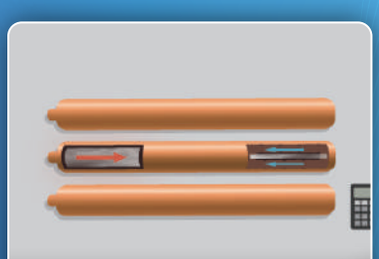
Fast Evaluation of Suitable Thermal Solutions



Open System



Closed System



Heat Pipe

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