



GCS-045-GS-WE

SILICONE THERMAL GREASE

Product Image:



Features:

- 4.5 w/m K thermal conductivity
- No pump out or stability issue
- Easy to apply and rework
- Dispensable
- 15% Silicone Compounds, 35% Carbon Compounds, 50% Metal Oxide Compounds

Characteristics:

Characteristics	Test Method	Value
Colour	Visual	Grey
Thermal Impedance ($^{\circ}\text{C}\cdot\text{mm}^2/\text{W}$)	ASTM D5470	0.0087
Thermal Conductivity ($\text{W}/\text{m K}$)	ASTM D5470	4.5
Specific Gravity (g/cm^3)	ASTM D1475	3.15
Dielectric strength (kV/mm)	ASTM D149	>8
Continuous Use Temperature ($^{\circ}\text{C}$)	EN344	-20 - +180
Volume Resistivity ($\text{Ohm}\cdot\text{cm}$)	ASTM D257	10^{12}
Bondline Thickness (mm)	-	0.15
Viscosity (cps)	-	750,000

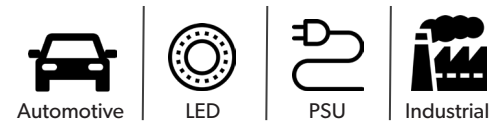
Product Configurations:

Part Number	Total Weight (g)
GCS-045-GS-WE-40g	40
GCS-045-GS-WE-1kg	1000

To Purchase:

<https://www.gcsthermal.com/product/gcs-045-gs-we/>

This material is often used in these industries:





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General Product Information:

- GCS-045-GS-WE is a high-performance, silicone thermal interface paste engineered for demanding thermal management applications. With a thermal conductivity of 4.5 W/m·K, it delivers reliable and efficient heat transfer between components and heat dissipation surfaces.
- The product is supplied as a grey, tacky, thixotropic paste with a viscosity of 750,000 making it well suited to both manual application and high-volume automated dispensing processes. It flows readily through a 40cc syringe, ensuring consistent and repeatable deposition on production lines.
- GCS-045-GS-WE operates across a temperature range of -20°C to +180°C.
- GCS-045-GS-WE is RoHS compliant, environmentally responsible, and safe for use in industrial and consumer settings. It is available in a 40g syringes and 1kg pots.
- Typical application areas include CPU-to-heatsink interfaces, power semiconductors, IGBTs, rectifiers, LED assemblies, TEC modules, ECUs, memory and power modules, and battery system gap filling across the automotive, industrial, and LED PSU sectors.

Country of Origin: China

Product Handling:

GCS-045-GS-WE should be stored in a cool, dry environment away from direct sunlight and sources of heat. Keep the syringes or pots sealed when not in use to prevent contamination and maintain product consistency.

Prior to application, ensure that all mating surfaces are clean, dry, and free from dust, grease, and any residual thermal material. The paste should be applied in a thin, uniform layer to achieve optimal thermal contact and performance.

GCS-045-GS-WE requires no curing and is ready to use directly from the syringe or pot. When dispensing from a 40cc syringe, no tip attachment is required for standard flow rates of 80–100 g/min.

For production environments, the material is compatible with automated dispensing equipment.

As with all thermal interface materials, avoid prolonged skin contact. The product is RoHS compliant and does not contain silicone, making it suitable for use in silicone-sensitive environments. Refer to the Safety Data Sheet (MSDS) for full handling, first aid, and disposal guidance.

Cleaning:

To remove GCS-045-GS-WE from mating surfaces, use a suitable cleaning agent. For best results, first remove the bulk of the material using a clean, dry lint-free cloth or swab, before applying a cleaning solvent such as isopropyl alcohol (IPA) to the surface.

Wipe the surface clean using a fresh lint-free cloth, working in one direction to avoid spreading residual material. Repeat as necessary until the surface is completely clean and free from any trace of the paste before re-application.

Ensure adequate ventilation when using solvent-based cleaning agents. Refer to the relevant solvent Safety Data Sheet (MSDS) for full handling and disposal guidance.

Storage Conditions:

- Store in a cool, dry place away from direct sunlight and sources of moisture.
- Recommended storage temperature: 15°C to 25°C
- Keep the product in its original packaging until use to prevent contamination or damage.

Shelf Life:

- 24 months from the date of manufacture when stored under recommended conditions.
- Always check the product label for expiration date and batch information.

Contact Information:

GCS Thermal
7 Priory Business Park, Kibworth, Leicestershire, LE8 0RX
www.gcsthermal.com
info@gcsthermal.com
02479 992426





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General Customer Responsibility:

- Customers are responsible for ensuring that GCS products are suitable for their intended application.
- Proper handling, storage, and installation in accordance with GCS guidelines are essential to ensure optimal product performance.
- Goods within the GCS product range may contain advanced materials that require specific handling or compliance measures, please refer to the MSDS or consult the product datasheet for details.

Customer Support:

- For technical assistance, product enquiries, or support with installation and usage, please contact: info@gcsthermal.com or visit <https://www.gcsthermal.com/blogs/>
- Our technical team is available to assist to ensure the product is used effectively and safely in your application.

Product Care:

- Please take care should be taken to avoid contamination, moisture, or mechanical damage before and during use.
- Avoid exposure to moisture, excessive mechanical stress, or contamination during storage and handling.
- Store in a cool, dry environment away from direct sunlight or extreme temperatures.

Product Life Cycle:

- GCS thermal interface materials are designed for long-term performance; however, their lifecycle may vary depending on operating conditions such as temperature, mechanical stress, and environmental exposure.
- Regular inspection is recommended in high-demand applications to ensure continued thermal efficiency.
- For detailed lifecycle expectations or testing data, please contact GCS Thermal and refer to Shelf Life.

Property Rights:

- All GCS products, technologies, and materials are subject to intellectual property rights owned or licensed by GCS Thermal.
- Unauthorised use, reproduction, or distribution of GCS Thermal products or documentation is strictly prohibited.
- Any trademarks, product names, or design features are the property of GCS Thermal or their respective owners.

General Terms and Conditions:

- All sales are subject to GCS Thermal's standard terms and conditions, which are available upon request or via our website.
- Customers are advised to review and understand these terms prior to purchase or use.

Directions for Use:

- GCS Thermal products are designed for easy integration into your application.
- Clean and prepare all surfaces before applying.

Contact Information:

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CERTIFICATIONS			PRODUCT	
 			GCS-045-GS-WE	
CHECKED 29/06/2026	REVISION Version 1	DATE 29/06/2026	GENERAL TOLERANCE	PROTECTION METHOD
DESCRIPTION SILICONE THERMAL GREASE		ORDER CODE GCS-045-GS-WE	STATUS	SIZE/TYPE

