TG PhaseSheet PTM PRO

High Performance Cooling Solutions

With PhaseSheet PTM Pro, Thermal Grizzly introduces a thermal sheet based on a phase change material (PCM). The sheets are solid at room temperature and can be easily applied. They liquefy during operation, allowing them to transfer heat effectively like a thermal paste. PhaseSheet PTM Pro is electrically non-conductive and can therefore be used in a wide range of applications, primarily processors and graphics chips.

PhaseSheet PTM Pro is a further development of PhaseSheet PTM and offers increased thermal conductivity. The optimized composition responsible for the improved thermal conductivity, combined with a new carrier film, also makes PhaseSheet PTM Pro easier to handle than PhaseSheet PTM. The carrier film can be removed very easily from both sides of PhaseSheet PTM Pro, significantly reducing the risk of tearing the sheet.

What makes PhaseSheet PTM Pro so special?

PhaseSheet PTM Pro is a thermal sheet optimized for applications with long maintenance intervals. It offers a longer service life than traditional thermal pastes, although it does not match the longevity of KryoSheet, which is virtually maintenance-free. The maximum thermal conductivity of PhaseSheet PTM Pro develops and stabilizes after approximately ten thermal cycles, each reaching temperatures above 60 °C.

The phase change material used in PhaseSheet PTM Pro is solid at room temperature. It only begins to liquefy at temperatures above 45 °C. A mounting force of approximately 300 to 400 N is required for optimal distribution of the liquefied material and the thinnest possible interface layer. The low initial thickness of 0.2 mm supports a short heat transfer path and the formation of a thin interface layer between the chip or heat spreader and the cooler. The installation instructions provided by the respective hardware and cooler manufacturers must be followed.

Compared to traditional thermal paste, PhaseSheet PTM Pro maintains a very low viscosity in its liquid state and contracts again as it solidifies, keeping the pump-out effect to a minimum. This supports consistent heat transfer and sustained thermal performance.

The pump-out effect occurs when thermal paste is gradually forced out from between the heat spreader and the CPU cooler's base plate, for example. This happens because the heat spreader and base plate deform under operating temperatures, becoming concave or convex, and return to their original flat shape as they cool down.

Different materials, such as silicon and copper, expand at different rates when heated. As a result, the pump-out effect is particularly pronounced when a copper cooler is used on a graphics chip. Typical applications for PhaseSheet PTM Pro therefore include replacing the thermal paste on older graphics cards or converting to water cooling.

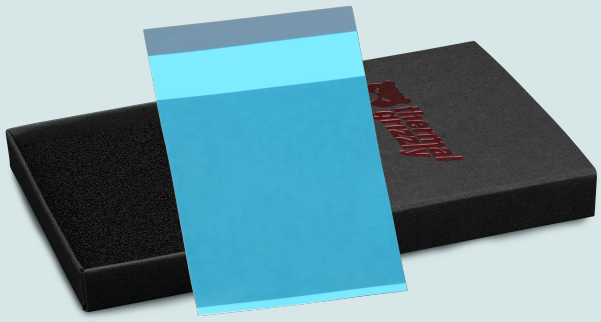
Scope of delivery

- 1x PhaseSheet PTM Pro

Technical specifications

Property	Value / Description
Material type:	Phase change material (PCM)
Color:	Gray
Electrically conductive:	No
Density:	2.6 g/cm³
Phase change temperature:	45 °C
Operating temperature range:	−40 °C to +125 °C
Typical application:	Thermal sheet for processors and graphics chips
Length:	40 mm
Width:	40 mm
Material thickness:	0.2 mm
Packaging dimensions:	17.5 × 11 × 1.3 cm
*Gross weight:	17 g
*Net weight:	0,82 g
Item number:	TG-PS-P-40-40
EAN code:	4260711994661

*Net weight is the total weight of an item excluding packaging and accessories. Gross weight is the total weight of the product including accessories and packaging. Minor weight variations may occur due to production processes.



Key features

- Excellent thermal conductivity
- Consistently high performance
- Very long service life
- Versatile applications
- Electrically non-conductive
- Easy to use

Additional product features

- Improved thermal conductivity compared to PhaseSheet PTM
- Easy application with carrier film that is easy to remove from both sides
- Low material thickness of 0.2 mm
- Phase change at approximately 45 °C
- Low pump-out effect
- Suitable for processors and graphics chips

Applications

PhaseSheet PTM Pro is suitable for use between a processor or graphics chip and its cooler. Typical applications include replacing conventional thermal paste, servicing older graphics cards and converting to water cooling. The electrically non-conductive material is particularly suitable for systems requiring consistent cooling performance over extended periods and long maintenance intervals.

Application notes

Completely remove the carrier films from both sides before installation. Maximum thermal conductivity is reached and stabilizes after approximately ten thermal cycles, each reaching temperatures above 60 °C. A mounting force of approximately 300 to 400 N is required for optimal material distribution. Follow the installation instructions provided by the respective hardware and cooler manufacturers.

Trademark information

Thermal Grizzly is a registered trademark.

Please note

The information in this technical data sheet is based on our current knowledge and experience. Due to the wide range of factors that may affect application, it does not release processors and users from carrying out their own tests and trials. No legally binding guarantee of specific properties or suitability for a particular purpose can be derived from this information. We reserve the right to modify product specifications as a result of technical progress or operational product development. Our recommendations do not release users from the obligation to independently check for and, where necessary, resolve any potential infringement of third-party intellectual property rights. Depending on the individual case, we recommend consulting us. Typographical errors are excepted.

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