

SWP9-x

THERMAL CONDUCTION PASTE

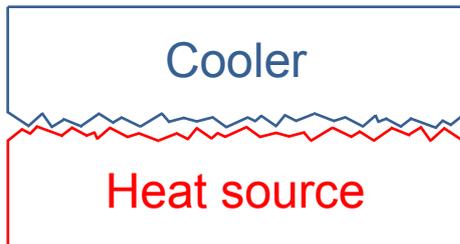


SWP9-x is a high-performance thermal conduction paste which is suitable for all applications. Thanks to the three unique phases and sizes of its silver particles (99.9% pure silver), a new form of particle-to-particle contacting and thermal conductivity is achieved. The polysynthetic carrier material of zinc oxide, aluminium oxide and boron nitride improves the performance and the long-term stability.

The ideal consistency of the **SWP9-x** thermal conduction paste ensures simple processing and a better distribution of the medium. The paste is not electrically conductive and is free from silicones.

AREAS OF APPLICATION

The microscopic irregularities and the resulting gaps create an air gap between the surface of a heat source (e.g. CPU, GPU) and that of a cooler (e.g. chip cooler, heat sink). As air has extremely poor thermal conductivity, an optimal dissipation of heat is prevented.



Thermal conductivity of varying materials:

- Air: 0.02 W/mK
- Water: 0.55 W/mK
- Customary thermal conduction paste: ~1 W/mK
- SWP9: ~9 W/mK
- Copper: 380 W/mK
- Silver: 429 W/mK

Schematic representation of the microscopic irregularities

Due to the use of thermal conduction paste, the air between the media is suppressed and a better thermal coupling is realized between the two surfaces. It is not suitable for filling bigger gaps and should be applied as thinly as possible.

DATA

The following values have been tested by the manufacturer. A continuous monitoring of quality, guarantees a consistent good quality. Detailed tests should be carried out for specific applications.

Properties		
Colour		Grey
Thermal conductivity	[W / m*K]	~9
Operating temperature (long-term)	[° C]	-50...+130
Operating temperature (short-term)	[° C]	-50...>+180
Density	[g/cm ³]	4.1
Average particle size	[µm]	~0.49
VPE	[g]	3.5/12

Subject to technical changes • 06/17

SWP9-x**THERMAL CONDUCTION PASTE****APPLICATION INSTRUCTIONS**

Due to the special shape and size of the particles in the carrier matrix, it is possible that the maximum thermal conductivity and performance is only achieved after a few hours and several heating and cooling cycles.

Despite the electrically non-conductive property, the **SWP9-x** should only be applied to the intended area, as it is slightly capacitive and thus could affect other electrical components.

Ensure that the surface is clean and free from grease. Apply a small amount of **SWP9-x** to the middle of the surface and distribute it evenly (do not use the fingers!). Press the cooling unit firmly to the component that requires cooling and avoid turning the cooler before fixing it.

Store in a cool dry place.

ORDBER INFORMATION

SWP9-3,5	Thermal conduction paste, Syringe with 3,5 g	111111342
SWP9-12	Thermal conduction paste, Syringe with 12 g	111111361

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