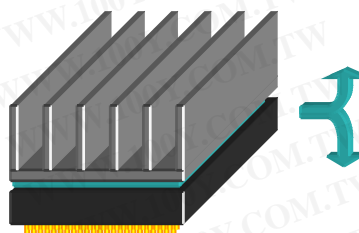


DIAMOND989Series Product Information

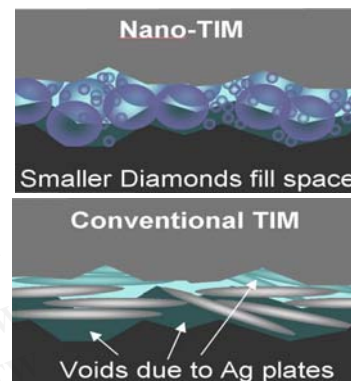
Nano Diamond Thermal Conductive Grease DIAMOND989 Series

DIAMOND989Series is a top-quality heat sink compound product developed most recently by Russian nano technology. Made with high-purity thermal conducting materials, **DIAMOND989's** exhibits excellent thermal conduction thanks to its finer molecular structure produced by nanoscale treatment. **DIAMOND989's** has the following superior properties such as high chemical stability, being non-corrosive, anti-oxidation, non-toxicity, non-volatility, non-flammability, and causing no irritation to human skin. It can withstand long-term storage, does not easily solidify, and can be readily implemented to the printing and coating process.

- Main ingredients: Nanodiamond, silicon
- Thermal Conductivity: **2.24, 3.1, 3.9 (W/m · K) Un-pressure.**



More Closely to Skin



DIAMOND989 typical specification

Item	DIAMOND989	DIAMOND979	DIAMOND969
Color Appearance	Gray paste	Gray paste	Gray paste
Viscosity	79,000 CPS	38,000 CPS	38,000 CPS
Specific Gravity	2.2 g/cm ³	1.8 g/cm ³	1.8 g/cm ³
Thermal Conductivity	3.1 w/mK Un-pressure	3.9 w/mK Un-pressure	2.24 w/mK Un-pressure
Thermal Resistance	0.103 °C*cm ² /w	0.083 °C*cm ² /w	0.142 °C*cm ² /w
Volume Receptivity	3.8x10 ¹³ ohm-cm	3.8x10 ¹³ ohm-cm	3.8x10 ¹³ ohm-cm
Dielectric Constant	14.5 at 1MHz	14.5 at 1MHz	14.5 at 1MHz
Volatile matter	0.22% 120°C @ 96hrs	0.22% 120°C @ 96hrs	0.22% 120°C @ 96hrs
Out Gassing	0.05% -40°C 10hrs/ 90°C 10hrs 7 cycle	0.05% -40°C 10hrs/ 90°C 10hrs 7 cycle	0.05% -40°C 10hrs/ 90°C 10hrs 7 cycle
Temperature Stability	-50°C to 250°C	-50°C to 250°C	-50°C to 250°C
25oC Shelf Life	5 years	5 years	5 years

Major applications:

- Heat sink interface for CPU in various computers or high-power chips.
- Heat sink interface for Graphics Processing Unit (GPU) in different display cards.
- Heat sink interface for High Bright LED
- Heat sink interface for the high-power chips in power source electronics such as power supply.

3rd Party Testing Report by Long Win [ASTM 5470(Modified)]



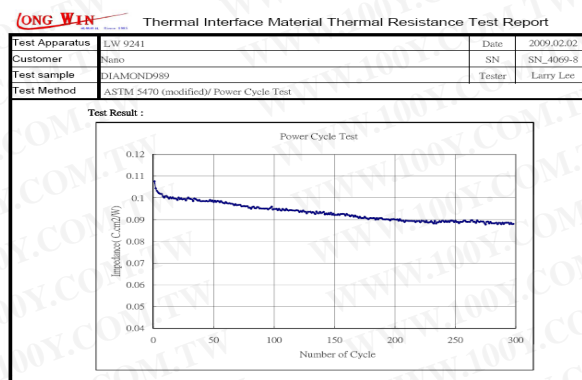
LONG WIN Thermal Interface Material Thermal Resistance Test Report

Test Apparatus	LW 9241	Date	2009.01.20
Customer	Felcom	SN	SN_009-5
Test sample	DIAMOND989/979/969-series	Tester	Larry Lee
Test Method	ASTM 5470 (modified)		

Test data :

Sample	Th	Tc	P	Q	R	lcm	lin
	°C	°C	Psi	W	°C/W	cm ² /W	in ² /W
DIAMOND989	90.10	88.30	79.72	88.48	0.020	0.103	0.016
DIAMOND979	90.01	88.57	79.72	88.66	0.016	0.082	0.013
DIAMOND969	90.74	88.26	79.72	88.63	0.028	0.142	0.022
7762	90.91	88.57	79.44	88.48	0.026	0.134	0.021

Th: hot side temperature Q: heat flux l_{cm}: thermal impedance (°C.cm²/W)
Tc: cool side temperature Thickness: interface thickness l_{in}: thermal impedance (°C.inch²/W)
Pressure: contact pressure R: thermal resistance



80 psi, Rac: DIAMOND989<979<969

Power Cycle test, 0 & 95W in 40 min, 300 times

Feature

- Excellent thermal conductivity.
- Easy to screen printed, non-toxicity, won't dry-out harden.
- Good stability against thermal oxidation.

Other Information

The information contained herein is offered in good faith and is believed to be accurate. However, should not be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular of any information or products referred to herein.

For More Information

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