

Silicone Free Thermal Gel

NFG-series 3.5, 4.5 W/mK | One-component Gel



Product Highlights

- Combines very low stress with low thermal resistance
- High reliability and excellent weather resistance
- Silicone-free, ideal for siloxane-sensitive applications
- Fully cured, non-drying
- Easy to dispense; can serve as a replacement for traditional thermal grease

Applications

- Automotive Electronic Control Units (ECUs)
- Electrical and semiconductor equipment
- Memory and power modules
- CPUs and graphics processing units (GPUs)
- Flat-panel displays and consumer electronics
- Components sensitive to silicone

The NFG series is a high-performance, silicone-free thermal interface material tailored for Siloxane-sensitive applications. With low thermal resistance and no curing required, it is ideal for systems where easy rework and handling are important. Its natural tackiness and excellent wettability ensure full contact between components, greatly improving heat transfer efficiency.

This flexible material has very low compressibility, making it ideal for uneven surfaces. It can be used on single components needing a thin layer or on multiple components sharing a heat sink with varying

Usually supplied in syringes or tubes, the NFG series can be precisely dispensed using automated equipment and is also suitable for screen printing. It serves as an efficient alternative to thermal pads, enhancing thermal performance while lowering costs.

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Specifications Table

Parameters	Units of Measure	NFG3500	NFG4500
Colour		White	White / Violet
Curing Schedule @30cc syringe 0.1" needle nozzle, 90Psi	g/min	12	22
Thermal Conductivity	W/m·K	3.5	4.5
	°C·in ² /W	0.07	0.04
Thermal Resistance @20psi	°C·cm ² /W	0.45	0.26
	mm	0.06	0.08
Minimum Thickness	mm	0.06	0.08
Flammability Rating	—	V0	V0
Volume Resistivity	Ω·cm	$\geq 1.0 \times 10^{13}$	$\geq 1.0 \times 10^{13}$
Dielectric Strength @1mm	kV	≥ 8	≥ 8
Density	g/cm ³	3.05	3.3
Dielectric Constant	@1MHz	4.5	6.5
TML(CVCM)	%	$\leq 0.15(0.05)$	$\leq 0.15(0.05)$
Low Volatile Content (D4~D20)	ppm	—	—
Operating Temperature	°C	-55~+150	-55~+150
RoHS	—	Yes	Yes