

# Thermal Compound 52050

## Silicone-Free Thermal Interface Material



Thermal compound can be packaged in any size Nordson EFD syringe or cartridge along with 6 oz jars, 1 gallon pails, and 5 gallon pails.

### The Non-Silicone Advantage

The no-creep feature extends circuit life by protecting components longer and eliminating premature failures caused by migrating fluid. Silicone-based compounds have an undesirable tendency to physically migrate and contaminate nearby components. This contamination can interfere with circuit operation long after hardware installation to cause unexpected and often inaccessible problems.

Thermal Compound 52050 High Thermal Conductivity synthetic non-silicone thermal grease has been designed for low bond line applications requiring a non-silicone and non-metal filled thermal interface material. The compound is formulated with organic renewable “green” fluid technology. The product will never phase separate and resists migration. Although it is a highly filled system, it will easily spread into a thin film for maximum heat transfer.

### Features

- High thermal conductivity
- Non-metallic filler
- "Green" fluid technology

### Benefits

- Easy to apply and clean
- Very low bleed and evaporation
- No creep
- Will not dry, harden, or melt in normal use
- Non-hazardous

### Typical Applications

- Mounting Semiconductor devices, power transistors, resistors, and diodes
- Coupling heat generating assemblies to chassis
- Heat transfer medium on lighting ballasts
- Thermocouple wells



more info



## Typical Properties

Characteristic	Conditions	Typical Value	Test Method
Specific Gravity	25° C	2.6	ASTM D-70
Bleed	200° C, 24 hrs	0.01%	FTM-321 Modified
Outgassing	150° C, 24 hrs	0.6%	FTM-321 Modified
Thermal Conductivity	36° C	3.8 W/m-K	ASTM D 5470-06
Dielectric Strength	0.05 in gap	351 V/mil	ASTM D 5470-06
Dielectric Constant	25° C, 1000Hz	4.92	ASTM D-150
Dissipation Factor	25° C, 1000Hz	0.0032	ASTM D-150
Electrical Resistivity		1.0x10 <sup>13</sup> ohm-cm	ASTM D-257
Operating Temperature		-40 to 200° C	
Bond Line (min)		0.0508 mm / 2 mil	
Bond Line (max)		0.127 mm / 5 mil	
Flow Rate		1 to 3 g/min	30cc syringe barrel, 16 ga tapered tip, 50 psi
Viscosity	1 sec-1, 25° C	350 kCps	Ares G-2 Rheometer
	1 sec-1, 50° C	60 kCps	
Appearance		Dark gray paste	
Shelf Life		1 Year	



For Nordson EFD sales and service in over 40 countries, contact Nordson EFD or go to [www.nordsonefd.com](http://www.nordsonefd.com)

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