

# N-putty5

## Non-Silicone Thermal Conductive Putty

LiPOLY N-putty5 is a non-silicone thermally conductive material without volatilization of low molecular siloxane, and low total volatile gas. With a thermal conductivity of 9.0 W/m\*K, the high deformation can perfectly fill small air gaps to eliminate tolerances. It can also overcome spillage and drying issues to increase thermal conductivity, making it ideal for dispensing with dispensing robots.

### ■ FEATURES

- / Thermal conductivity:9.0 W/m\*K
- / Bond line thickness:100~1500μm
- / Non-silicone resin materials
- / Designed to remove manufacturing tolerances
- / Does not produce stress on delicate components
- / No vertical flow
- / Dispensable for serial manufacture
- / For any high compression and low stress application

### ■ TYPICAL APPLICATION

- / Between CPU and heat sink
- / Between a component and heat sink
- / High speed mass storage drives
- / Telecommunication hardware
- / Flat-panel displays
- / Set-top box
- / IP CAM
- / 5G base station & infrastructure
- / EV electric vehicle

### ■ CONFIGURATIONS

- / Cartridges: 30ml, 55ml, 330ml
- / Bucket: 1kg, 25kg

### ■ PRESERVATION

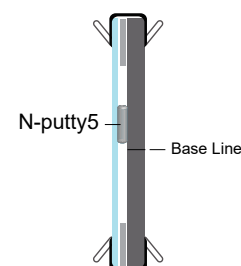
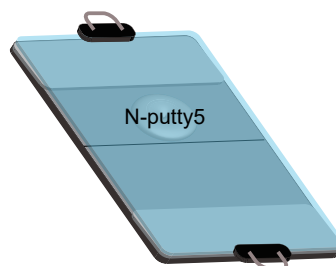
It can be preserved for 60 months under the condition of unopened and under room temperature 30°C.

### ■ TYPICAL PROPERTIES

PROPERTY	N-putty5	TEST METHOD	UNIT
Color	Gray	Visual	-
Resin base	Non-Silicone	-	-
Viscosity	25000	DIN 53018	Pa.s
Flow Rate (30cc EFD tube, 2.35mm Orifice diameter, 90psi&60s)	11	By LiPOLY	g/min
Density	3.3	ASTM D792	g/cm <sup>3</sup>
Application temperature	-60~150	-	°C
Bond line thickness	100~1500	-	μm
TML	<0.60	By LiPOLY	%
Shelf life	60 months	-	-
ROHS & REACH	Compliant	-	-
<b>ELECTRICAL</b>			
Dielectric breakdown	12	ASTM D149	KV/mm
Volume resistivity	>10 <sup>13</sup>	ASTM D257	Ohm-m
<b>THERMAL</b>			
Thermal conductivity	9.0	ASTM D5470	W/m*K
Thermal impedance@10psi / 80°C	0.036	ASTM D5470	°C-in <sup>2</sup> / W
Thermal impedance@30psi / 80°C	0.032	ASTM D5470	°C-in <sup>2</sup> / W
Thermal impedance@50psi / 80°C	0.029	ASTM D5470	°C-in <sup>2</sup> / W

### ■ VERTICAL RELIABILITY

Using 1.5mm pad as a gap control, put the putty between the aluminum and the glass panel mark the initial position. Then, place it in the oven with 125°C for 1,000 hours and observe its displacement after reliability test



Material no dropped or changed after high temperature aging testing