

# N700B-s

## Non-Silicone Thermal Conductive Pad

Non-Silicone Thermal Compound N700B-s is made of non-silicon resin material. No low molecular siloxane volatilization and low total volatile gas, no electrical contact & pollution problems. N700B-s is flexible and has great thermal conduction, Low compressive stress and high compressive characteristics can effectively reduce the stress load of components, so that the equipment only needs to bear less mechanical stress, and at the same time, it can have low thermal resistance and high thermal conductivity.

### FEATURES

- / Thermal conductivity: 3.0 W/m\*K
- / It's made by non-silicone resin materials
- / Low contact thermal resistance
- / With electrical insulation
- / Outstanding thermal conductivity
- / Applicable to optical and sensitive electric components

### TYPICAL APPLICATION

- / HDDS
- / Optical appliance
- / 5G base station & infrastructure
- / EV electric vehicle

### SPECIFICATIONS

- / Sheet form
- / Die-cut parts



### TYPICAL PROPERTIES

PROPERTY	N700B-s	TEST METHOD	UNIT
Color	Red	Visual	-
Surface tack 2-side/1-side	2	-	-
Thickness	Customized	ASTM D374	mm
Density	2.6	ASTM D792	g/cm <sup>3</sup>
Hardness	60	ASTM D2240	Shore OO
Tensile Strength	1.0	ASTM D412	Kgf/cm <sup>2</sup>
Application temperature	-60~125	-	°C
Low molecular Siloxane (D3 to D20 total)	N.D	Gas Chromatography	%
Outgassing CVCN (wt%)	0.0072	By LiPOLY	-
ROHS & REACH	Compliant	-	-
<b>COMPRESSION@1.0mm</b>			
Deflection @10 psi	27	ASTM D5470 modify	%
Deflection @20 psi	42	ASTM D5470 modify	%
Deflection @30 psi	51	ASTM D5470 modify	%
<b>ELECTRICAL</b>			
Dielectric breakdown	16	ASTM D149	KV/mm
Surface resistivity	>10 <sup>11</sup>	ASTM D257	Ohm
Volume resistivity	>10 <sup>10</sup>	ASTM D257	Ohm-m
<b>THERMAL</b>			
Thermal Conductivity	3.0	ASTM D5470	W/m*K
Thermal impedance@10 psi	0.671	ASTM D5470	°C-in <sup>2</sup> / W
Thermal impedance@20 psi	0.543	ASTM D5470	°C-in <sup>2</sup> / W
Thermal impedance@30 psi	0.392	ASTM D5470	°C-in <sup>2</sup> / W
Thermal impedance@40 psi	0.236	ASTM D5470	°C-in <sup>2</sup> / W
Thermal impedance@50 psi	0.169	ASTM D5470	°C-in <sup>2</sup> / W

The chemical formula indicates that if Cyclic polydimethylsilox-ane (HO-[Si(CH<sub>3</sub>)<sub>2</sub>O]<sub>n</sub>-H) is non-reaction, it's volatile anytime and everywhere. For example, when the electric products which has been put in a confined space, the volatile of low-molecular-weight silox-anes will makes the elecetic products uncontacted.

### Thermal Resistance vs. Pressure vs. Deflection

