

N800A-s

Non-Silicone Thermal Conductive Pad

LiPOLY N800A-s is a silicone-free thermal interface material based on a non-silicone resin system. It contains no low-molecular-weight siloxane volatiles and features low outgassing characteristics, eliminating concerns of contamination and electrical contact issues. N800A-s complies with ASTM E595 requirements, making it ideal for applications demanding high cleanliness and reliability. With excellent flexibility, high thermal conductivity, low compression force, and high compressibility, N800A-s minimizes mechanical stress on components while maintaining low thermal resistance and outstanding heat dissipation performance.

FEATURES

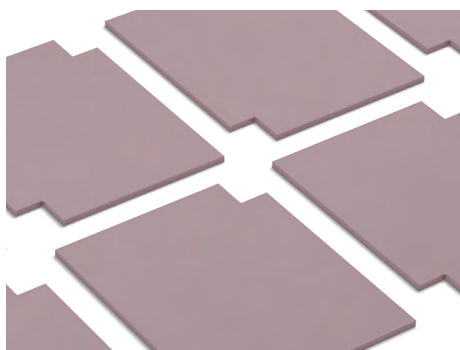
- / Thermal conductivity: 9.0 W/m*K
- / It's made by non-silicone resin materials
- / Low contact thermal resistance
- / With electrical insulation
- / Outstanding thermal conductivity
- / Applicable to optical and sensitive electric components

TYPICAL APPLICATION

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

SPECIFICATIONS

- / Sheet form
- / Die-cut parts



TYPICAL PROPERTIES

PROPERTY	N800A-s	TEST METHOD	UNIT
Color	Pink	Visual	-
Surface tack 2-side/1-side	2	-	-
Thickness	Customized	ASTM D374	mm
Density	3.4	ASTM D792	g/cm ³
Hardness	50	ASTM D2240	Shore OO
Application temperature	-60~125	-	°C
Low molecular Siloxane (D3 to D20 total)	N.D	Gas Chromatography	%
Total Mass Loss (TML ≤ 1.0%)	0.0554	ASTM E595	%
Collected Volatile Condensable Materials (CVCN ≤ 0.10%)	0.0321	ASTM E595	%
Water Vapor Regained	0.0196	ASTM E595	%
ROHS & REACH	Compliant	-	-
COMPRESSION@1.0mm			
Deflection @10 psi	14	ASTM D5470 modify	%
Deflection @20 psi	35	ASTM D5470 modify	%
Deflection @30 psi	67	ASTM D5470 modify	%
ELECTRICAL			
Dielectric breakdown	8	ASTM D149	KV/mm
Surface resistivity	>10 ¹¹	ASTM D257	Ohm
Volume resistivity	>10 ¹⁰	ASTM D257	Ohm-m
THERMAL			
Thermal conductivity	9.0	ASTM D5470	W/m*K
Thermal impedance@10 psi	0.238	ASTM D5470	°C-in ² / W
Thermal impedance@20 psi	0.166	ASTM D5470	°C-in ² / W
Thermal impedance@30 psi	0.102	ASTM D5470	°C-in ² / W

The chemical formula indicates that if Cyclic polydimethylsiloxane (HO-[Si(CH₃)₂O]_n-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 siloxanes will makes the electric products uncontacted.

Thermal Impedance vs. Pressure vs. Deflection

