

N800A-s

Non-Silicone Thermal Conductive Pad (Low-Outgassing)

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

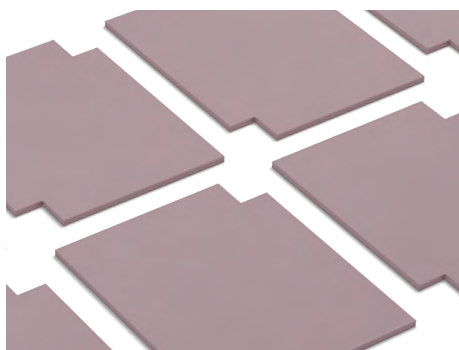
- / Thermal conductivity: 9.0 W/m·K
- / It's made by non-silicone resin materials
- / Low contact thermal resistance
- / With electrical insulation
- / Outstanding thermal conductivity
- / Applicable to optical and sensitive electric components

TYPICAL APPLICATION

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

SPECIFICATIONS

- / Sheet form
- / Die-cut parts



TYPICAL PROPERTIES

PROPERTY	N800A-s	UNIT	TEST METHOD
Color	Pink	-	Visual
Surface tack 2-side/1-side	2	-	-
Thickness	Customized	mm	ASTM D374
Density	3.4	g/cm ³	ASTM D792
Hardness	50	Shore OO	ASTM D2240
Application temperature	-60~130	°C	-
Low molecular Siloxane (D3 to D20 total)	N.D	%	Gas Chromatography
Total Mass Loss (TML)	≤ 1.0	%	ASTM E595
Collected Volatile Condensable Materials (CVCN)	≤ 0.1	%	ASTM E595
Water Vapor Regained	≤ 0.02	%	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	KV/mm	ASTM D149
Surface resistivity	>10 ¹¹	Ohm	ASTM D257
Volume resistivity	>10 ¹⁰	Ohm-m	ASTM D257
THERMAL			
Thermal conductivity	9.0	W/m·K	ASTM D5470
Thermal impedance@10 psi	0.238	°C-in ² / W	ASTM D5470
Thermal impedance@20 psi	0.166	°C-in ² / W	ASTM D5470
Thermal impedance@30 psi	0.102	°C-in ² / W	ASTM D5470

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

