LiPOLY®
SHIU LI TECHNOLOGY CO.,LTD

N700C

Low-Outgassing Non-Silicone Thermal Pad

LiPOLY N700C 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. N700C 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, N700C minimizes mechanical stress on components while maintaining low thermal resistance and outstanding heat dissipation performance.

FEATURES

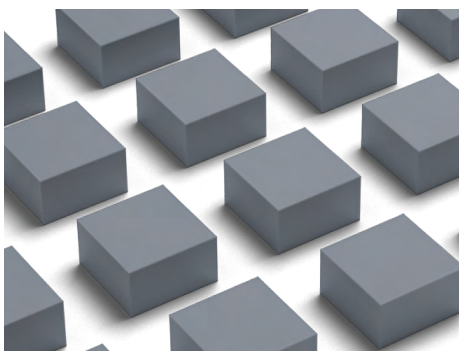
/ Thermal conductivity: 5.0 W/m·K
/ It's made by non-silicone resin materials
/ Low contact thermal resistance
/ With electrical insulation
/ Outstanding thermal conductivity
/ Applicable to optical and sensitive electric components

TYPICAL APPLICATION

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

SPECIFICATIONS

/ Sheet form
/ Die-cut parts



TYPICAL PROPERTIES

PROPERTY	N700C	UNIT	TEST METHOD
Color	Gray	-	Visual
Surface tack 2-side/1-side	2	-	-
Thickness	Customized	mm	ASTM D374
Density	3.2	g/cm³	ASTM D792
Hardness	55	Shore OO	ASTM D2240
Application temperature	-60~125	°C	-
Low molecular Siloxane (D3 to D20 total)	N.D	%	Gas Chromatography
Total Mass Loss (TML)	≤ 1.0	%	ASTM E595
Collected Volatile Condensable Materials (CVCM)	≤ 0.1	%	ASTM E595
Water Vapor Regained	≤ 0.02	%	ASTM E595
ROHS & REACH	Compliant	-	-
COMPRESSION@1.0mm			
Deflection @10 psi	16	%	ASTM D5470 modify
Deflection @20 psi	46	%	ASTM D5470 modify
Deflection @30 psi	68	%	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	5.0	W/m·K	ASTM D5470
Thermal impedance@10 psi	0.312	°C-in²/ W	ASTM D5470
Thermal impedance@20 psi	0.208	°C-in²/ W	ASTM D5470
Thermal impedance@30 psi	0.132	°C-in²/ W	ASTM D5470

The chemical formula indicates that if Cyclic polydimethylsilox-ane (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 silox-anes will makes the elecetic products uncon-tacted.

Thermal Impedance vs. Pressure vs. Deflection