LiPOLY®
SHIU LI TECHNOLOGY CO.,LTD

# N700C

## Non-Silicone Thermal Conductive 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

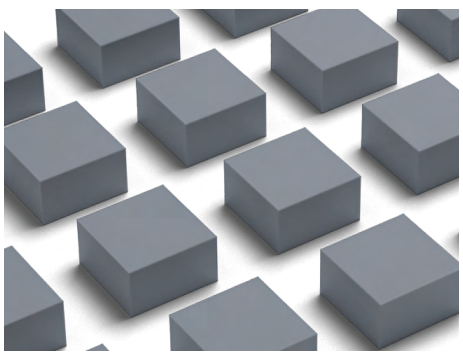
/ Thermal conductivity: 5.0 W/m*K
/ It's made by non-silicone resin materials
/ Low contact thermal resistance
/ With electrical insulation
/ Outstanding thermal conductivity
/ Applicable to optical and sensitive electric components

## TYPICAL APPLICATION

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

## SPECIFICATIONS

/ Sheet form
/ Die-cut parts



## TYPICAL PROPERTIES

| PROPERTY | N700C | TEST METHOD | UNIT |
|---|---|---|---|
| Color | Gray | Visual | - |
| Surface tack 2-side/1-side | 2 | - | - |
| Thickness | Customized | ASTM D374 | mm |
| Density | 3.2 | ASTM D792 | g/cm³ |
| Hardness | 55 | 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%) | 0.0407 | ASTM E595 | % |
| Collected Volatile Condensable Materials (CVCM ≤ 0.10%) | 0.0279 | ASTM E595 | % |
| Water Vapor Regained | 0.0121 | 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 | ASTM D149 | KV/mm |
| Surface resistivity | $>10^{11}$ | ASTM D257 | Ohm |
| Volume resistivity | $>10^{10}$ | ASTM D257 | Ohm-m |
| THERMAL | | | |
| Thermal conductivity | 5.0 | ASTM D5470 | W/m*K |
| Thermal impedance@10 psi | 0.312 | ASTM D5470 | °C-in²/ W |
| Thermal impedance@20 psi | 0.208 | ASTM D5470 | °C-in²/ W |
| Thermal impedance@30 psi | 0.132 | ASTM D5470 | °C-in²/ W |

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 uncontacted.

## Thermal Impedance vs. Pressure vs. Deflection