

N800D

Low-Outgassing Non-Silicone Thermal Pad

HIGH THERMAL PERFORMANCE • LOW CONTAMINATION RISK • RELIABLE INSULATION

23.0 W/m·K

THERMAL CONDUCTIVITY
ASTM D5470

8.5 KV/mm

DIELECTRIC BREAKDOWN
ASTM D149

70 Shore 00

HARDNESS
ASTM D2240

| PRODUCT OVERVIEW

LiPOLY N800D is a high-performance thermal interface material formulated with a non-silicone resin system. It minimizes the potential for low-molecular-weight siloxane migration and outgassing, making it suitable for electronic, optoelectronic, and advanced thermal management applications where cleanliness, reliability, and contamination control are critical.

With a thermal conductivity of 23.0 W/m·K, Shore 00 70 hardness, excellent flexibility and compressibility, and a dielectric breakdown strength of 8.5 KV/mm, N800D delivers effective heat transfer, interface conformity, electrical insulation, and reduced mechanical stress for high-reliability applications.



NON-SILICONE PLATFORM
Non-silicone resin system

LOW OUTGASSING
ASTM E595 compliant

ELECTRICAL PROTECTION
High dielectric strength with low mechanical stress

HIGH HEAT TRANSFER
Thermal conductivity: 23.0 W/m·K

FLEXIBLE & COMPRESSIBLE
Excellent flexibility and compressibility

HIGH-RELIABILITY DESIGN
For contamination-sensitive applications

| TYPICAL APPLICATIONS

AI / HPC	GPU, ASIC, HBM, VRM
Optical Communication	800G / 1.6T transceiver, silicon photonics
Semiconductor Equipment	Wafer inspection, metrology, vacuum equipment
Optical Systems	Camera, LiDAR, laser
Automotive Electronics	ADAS, domain controller, radar
Telecommunication	5G / 6G, network equipment, edge computing
Satellite & Aerospace	Satellite electronics, payload, communication module

PERFORMANCE FEATURES

THERMAL PERFORMANCE

- High thermal conductivity
- Low thermal resistance
- Excellent heat dissipation performance

MECHANICAL PROPERTIES

- Excellent flexibility and compressibility
- Good conformability to surface irregularities
- Reduced mechanical stress on components

ELECTRICAL PERFORMANCE

- High dielectric strength
- Reliable electrical insulation
- Suitable for high-power electronic applications

RELIABILITY

- Stable long-term thermal performance
- Low outgassing and reduced contamination risk
- Reliable performance under demanding operating conditions

RELIABILITY HIGHLIGHTS

Reliability testing was conducted under the specified conditions. Results may vary depending on test conditions and sample configuration.
Test method: ASTM D5470. Unit: °C-in²/W.

Test Item	Test Condition	Result	Test Method
High Temperature Aging	125°C, 1000 hrs.	Pass	Internal Method
High Temperature / High Humidity	85°C / 85% RH, 1000 hrs.	Pass	Internal Method
Thermal Cycling	-40°C ↔ 125°C, 500 cycles	Pass	Internal Method
Low Temperature	-60°C, 1000 hrs.	Pass	Internal Method

RECOMMENDED USAGE

1. Ensure mating surfaces are clean, dry, and free of contaminants before installation.
2. Select the appropriate material thickness based on the actual gap and component tolerances.
3. Handle the material carefully; avoid excessive stretching, folding, or repeated handling.
4. Apply uniform compression to ensure full contact with the mating surfaces.
5. Avoid excessive compression that may cause unnecessary material deformation.
6. For large-area applications, place the material gradually to minimize air entrapment.
7. Verify final contact and compression after assembly.

APPLICATION GUIDELINES

STORAGE & HANDLING - Store N800D in its original packaging at room temperature in a clean, dry environment. Protect it from direct sunlight, excessive heat, moisture, and contamination. Handle with care to maintain material integrity and surface condition.