

Ultra3065

Ultra-High Thermal Conductivity Gap Filler

LiPOLY Ultra3065 is a high-performance thermal gap filler engineered for next-generation AI servers, high-power GPUs, AI accelerators, and high-performance computing (HPC) platforms. It fills air gaps between heat-generating components and heat sinks, providing an efficient thermal interface for effective heat dissipation. With a thermal conductivity of 30.0 W/m·K, Ultra3065 enables efficient heat transfer from high-power components to heat sinks, vapor chambers, and other cooling solutions. Its excellent compressibility and conformability accommodate component height variations and uneven surfaces, while Shore 000 65 hardness provides a balance of surface conformity and mechanical support. Ultra3065 also provides excellent electrical insulation, with a dielectric breakdown strength of 9 KV/mm. Available in customizable thicknesses and dimensions, it is designed for high-power applications including AI servers, GPU modules, AI accelerators, CPUs, HBM packages, and power modules.

■ PRODUCT HIGHLIGHTS

- / Ultra-high thermal conductivity
- / Excellent compressibility and conformability
- / Reliable thermal interface performance
- / Electrical insulation
- / Designed for high-power computing

■ TYPICAL APPLICATION

- / AI & HPC • AI Servers • GPUs • CPUs • Accelerators
- / Data Center • Servers • Networking • Telecom Equipment
- / Power Electronics • Power Modules • High-Power Computing

■ PERFORMANCE FEATURES

THERMAL PERFORMANCE

- / High thermal conductivity
- / Low thermal resistance
- / High heat flux capability

MECHANICAL PROPERTIES

- / Excellent compressibility and conformability
- / Compensates for gap variation and surface unevenness
- / Stable contact during assembly

ELECTRICAL PERFORMANCE

- / Reliable electrical insulation
- / Enhanced safety for high-power applications
- / Suitable for advanced computing systems

RELIABILITY

- / Stable long-term thermal performance
- / Resistant to temperature cycling and humidity exposure
- / Reliable operation in mission-critical systems



■ RELIABILITY HIGHLIGHTS

Reliability testing was conducted under the specified conditions. Results may vary depending on test conditions and sample configuration.

Test Item	Test Condition	Test 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

- / Ensure the mating surfaces are clean, dry, and free of contaminants before installation.
- / Select an appropriate gap filler thickness based on the actual gap and component tolerance.
- / Avoid excessive stretching, folding, or repeated handling during installation.
- / Apply uniform compression to ensure full contact with the mating surfaces.
- / Avoid excessive compression to prevent material deformation.
- / For large-area applications, gradual placement is recommended to minimize air entrapment.
- / Verify final contact and compression after assembly.

■ APPLICATION GUIDELINES

- / Store Ultra3065 at room temperature in its original packaging. Avoid direct sunlight and high-temperature environments during storage. During installation, select an appropriate product size and ensure uniform compression. Excessive compression, stretching, or bending should be avoided.