Test & Quality Summary

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Thermal, reliability and compliance data · 2026 edition

This summary describes how Lenecold thermal materials are characterised and qualified, and what documentation is available with a shipment. Product-specific values are given in the pad and plate datasheets.

Test methods

Property	Method	Notes
Thermal resistance	ASTM D5470 (steady state)	Measured at controlled pressure and bond line
Thermal conductivity	Through-thickness (Z axis)	Directional value always stated
High-temperature aging	150 °C × 1500 h	Resistance and compression change ≤ 10%
Compression / rebound	Compressive loading	Assembly pressure and gap recovery
Dielectric strength	Breakdown voltage	Pad: > 5 kV/mm
Vacuum stability	TML / CVCM	Absolute and condensable mass loss
Dimensional	Die-cut and machined inspection	Tolerance ± 0.05 mm (die-cut)

Compliance

- ISO 9001 quality management system
- CE marking for applicable products
- RoHS and REACH compliant materials
- UL94 V-0 flammability grade available
- 18 patents and 7 trademarks across the thermal portfolio
- Developed and manufactured by NGIC — China's National Graphene Innovation Center

Documentation supplied with orders

- Certificate of Analysis (CoA) per batch
- Thermal resistance test data at the agreed pressure and bond line
- Material safety data where applicable
- Dimensional inspection report for machined or die-cut parts
- Full test reports on request (aging, cycling, vacuum, dielectric)

Sample and qualification support

We support design-in with: die-cut or machined samples from one piece, thermal-resistance testing to your conditions, power-cycling validation, and engineering review of your stack-up (power, gap, pressure, duty cycle, lifetime). Samples: one piece minimum, die-cut to your drawing · Standard specifications in ~2 weeks · Custom geometries in 4–6 weeks · FOB Ningbo · Global shipping with export documentation.