

TIMA® 5

simply measured.

TIMA® 5 Thermal Interface Material Analyzer

⊖ NANOTEST

Reach beyond ASTM D5470 Reliable. Repeatable. Reproducible



Simplistic, yet versatile

TIMA is a comprehensive laboratory and industrial measurement tool providing a wide range of thermal measurements and analyses to be performed with highest scientific standard.

Sample range

- Greases and pastes
- Cured gap fillers and adhesives
- Anisotropic composites
- Phase change materials

Output figures

- Overall thermal resistance
- Effective and bulk thermal conductivity
- Thermal interface resistance
- Pressure and temperature dependency

Advanced applications

- Curing parameters study
- Boundary conditions study
- In-situ reliability investigation

Extreme conditions testing



ASTM D5470 Standard Conforming and Beyond

Heater

TIMA 5 fully meets the established test methodology described in ASTM Standard D5470-17, while also providing fully automated characterization and many additional features not described in the ASTM Standard, such as the optional TTV module, that creates a realistic test scenario for material applied as TIM1 directly on a die surface.

TTV interface

300

200

100

R-value [mm²K/W]

- Interchangable test heads
- High-precision curing tool
- Optional TTV module
- Fully automated measurement
- Up to 150°C sample temperature
- ± 300 N clamping and tensile force with integrated load cell







Thermal resistance vs. thickness

t test hea 1. test head Sample Sample test head test head 60

Cvcle count

In-situ monitoring of aging / degradation

Application-related testing conditions

Highly accelerated: 5000 cycles per day

Thickness- and pressure-controlled cycling

Ageing and Reliability Investigation

TIMA allows accelerated lifetime testing for thermal interface materials exposed to thermomechanical stress by emulating mechanical strain from in-field application.



learn more

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nanotest.eu/tima





+49 (0) 30 6392 3880 info@nanotest.eu