



Tpcm™ 670 is a high performance, inherently tacky, easy to rework phase change thermal interface material. Developed specifically to meet the high thermal conductivity and low thermal resistance requirements of Intel® mobile processors. Tpcm 670 is optimized for multi-core and general CPU and GPU processors including Intel's Penryn Quad-Core mobile processor.

FEATURES AND BENEFITS

- Minimizes contact thermal resistance by filling the microscopic irregularities of the components it contacts. Begins to soften and flow at approximately 48°C.
- Designed to minimize migration (pump out) at CPU operating temperatures using a unique material formulation that softens, but does not fully change phase.
- Naturally tacky at room temperature, requiring no adhesive.
- Heat sink preheating not required.
- Supplied on tabbed liners for easy manual or automatic application.
- Exceptionally high reliability.
- Available with Laird Technologies easy release DF (patent pending) layer. DF (patent pending) minimizes the force required to disassemble after burn-in while still maintaining the highest possible thermal performance and exceptional reliability.

| PROPERTIES | Tpcm™ 670 | *Tpcm™ 670DF | TEST METHOD |
|--|------------------------------|---|-------------------------------------|
| Color | Grey | | Visual |
| Thickness, inches (mm) | 0.008" (0.20) 0.010 (.25) | 0.005 (0.125) 0.008" (0.20) 0.010 (.25) | |
| Thickness Tolerance, inches (mm) | +/-0.001" (0.025) | | |
| Construction & Composition | Non-reinforced Film | | |
| Specific Gravity, g/cc | 2.50 | | Helium Pycnometer |
| Shelf Life | 1 year | | |
| Operating Temperature Range, °C | -40 to 125°C | | |
| Phase Change Softening Range, °C | 45 to 70°C | | |
| Thermal Conductivity, W/mK | 4.3 | | Hot Disk Thermal Constants Analyzer |
| Thermal Resistance | | | |
| Outer core, 25 micron die height offset, °C-cm ² /W, (°C-mm ² /W) | 0.117 (11.7) | | Intel Mobile TIM Tester |
| 50 psi °C-in ² /W | 0.010 | 0.025 | ASTM D5470 (modified) |
| 345 Kpa, °C-cm ² /W | 0.065 | 0.161 | ASTM D5470 (modified) |

* patent pending

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