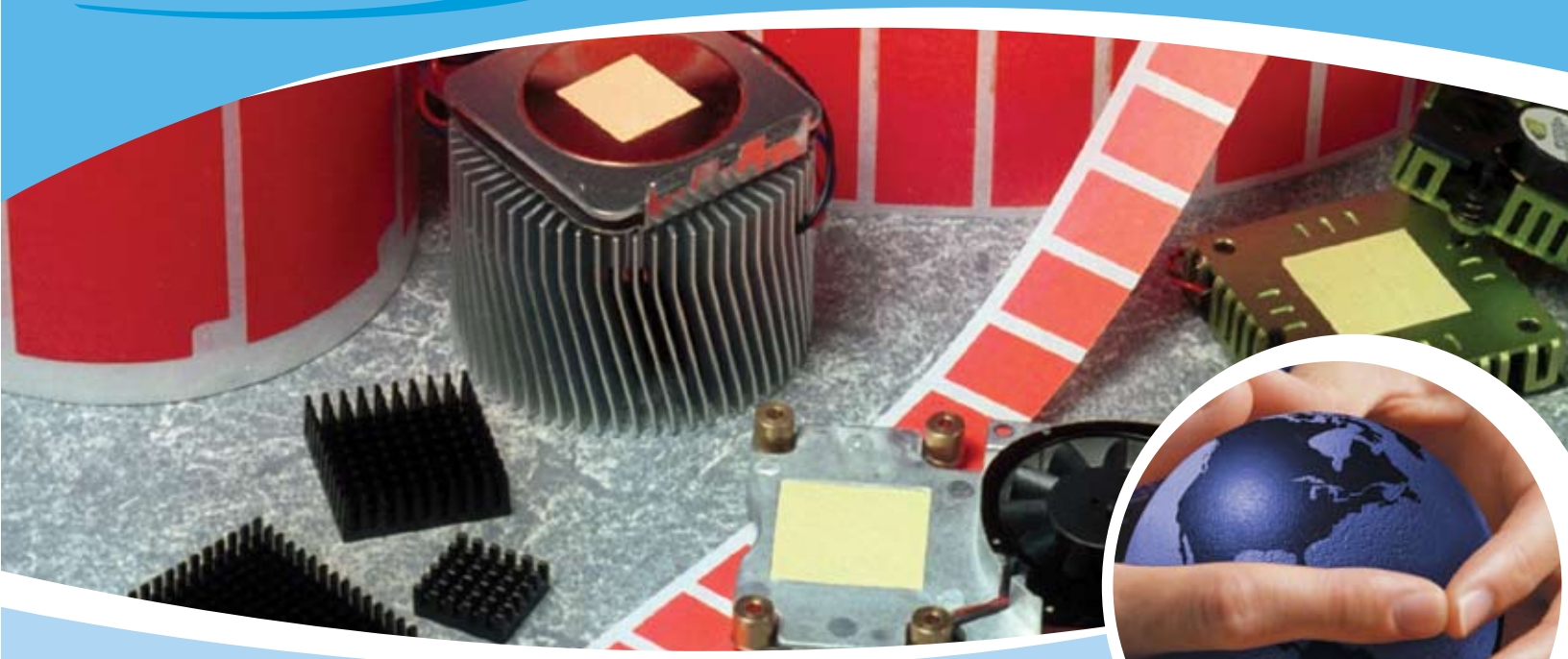
Laird TECHNOLOGIES®

T-pcm™ 900 Series



global solutions :
local support™

T-pcm™ 900 Series

T-pcm™ 900 is a high performance, non-electrically conductive phase change material. At 50°C, T-pcm™ 900 begins to soften and flow, filling the microscopic irregularities of both the thermal solution and the component's surfaces, thereby reducing thermal resistance.

T-pcm 900 is a flexible solid at room temperature and freestanding without reinforcing components that reduce thermal performance.

T-pcm 900 shows no thermal performance degradation after 1,000 hours @130°C, or after 500 cycles, from -25°C to 125°C. The material softens and does not fully change state resulting in minimal migration (pump out) at operating temperatures (see viscosity curve).

T-pcm 900 is supplied in rolls with top tabbed liners for easy manual or large volume automatic application. Individually die cut parts can also be supplied.

Features and Benefits:

- 0.03 °C-in²/watt thermal resistance
- Naturally tacky at room temperature, no adhesive required
- No heatsink preheating required
- Available in 3 thicknesses, 0.005", 0.010" and 0.020" (0.125mm, 0.25mm and 0.50mm)

Applications:

- High frequency microprocessors
- Notebook and desktop PCs
- Computer servers
- DC/DC converts
- Memory modules
- Cache chips
- IGBTs

For sales information:
In Asia, please telephone +886-3-3129292
In Europe, please telephone +44-1342-315044
In the USA please telephone 1-800-246-9050

or visit: **www.lairdtech.com**

T-pcm™ 900 Series

	T-pcm™ 905C	T-pcm™ 910	T-pcm™ 920	Test Method
Construction & Composition	Non-reinforced boron nitride filled film	Non-reinforced boron nitride filled film	Non-reinforced boron nitride filled film	
Color	Yellow	Yellow	Yellow	visual
Thickness	0.005" (0.13mm)	0.010" (0.25mm)	0.020" (0.51mm)	
Thickness Tolerance	± 0.001" (± 0.025mm)	± 0.001" (± 0.025mm)	± 0.002" (± 0.05mm)	
Density	1.31 g/cc	1.39 g/cc	1.39 g/cc	Helium Pycnometer
Temperature Range	-25 to 125°C	-25 to 125°C	-25 to 125°C	
Phase Change Softening Temperature	50°C to 70°C	50°C to 70°C	50°C to 70°C	
"Burn In" Temperature	70°C for 5 minutes	70°C for 5 minutes	70°C for 5 minutes	
Thermal Conductivity	0.7 W/mK	2.23 W/mK	2.23 W/mK	ASTM D5470 (modified)
Thermal Impedance @ 10 psi (69 KPa) @ 50 psi (345 KPa)	0.048 °C-in²/W (0.31 °C-cm²/W) 0.029 °C-in²/W (0.19 °C-cm²/W)	0.14 °C-in²/W (0.90 °C-cm²/W) 0.083 °C-in²/W (0.53 °C-cm²/W)	0.18 °C-in²/W (1.14 °C-cm²/W) 0.095 °C-in²/W (0.61 °C-cm²/W)	ASTM D5470 (modified)
Volume Resistivity	2 x 10^{13} ohm-cm	2 x 10^{13} ohm-cm	2 x 10^{13} ohm-cm	ASTM D257
Dielectric Constant @ 1MHz	3.1	3.1	3.1	ASTM D150

Standard Thicknesses: 0.005" (0.13mm) 0.010" (0.25mm) 0.020" (0.51mm)
Consult the factory for alternate thicknesses
Standard Sheet Sizes: 9" x 9" (229mm x 229mm)
T-pcm™ 900 sheets are supplied with a white release paper and a bottom liner. T-pcm™ 900 is available in rolls with an extended tab liner or individual die cut shapes.
Pressure Sensitive Adhesive: Pressure sensitive adhesive is not applicable for T-pcm™ products.
Reinforcement: No reinforcement is necessary.