



### PRODUCT DESCRIPTION

Tpcm™ 7000 is newest in Laird's line of high-performance TIM product offerings. With a thermal conductivity of 7.5 W/mK, Tpcm™ 7000 is designed to enhance the cooling of the most rigorous thermal challenges in electronics. Softening at ~50°C, the initial pad thickness can decrease to a bondline as thin as 25µm. Coupled with superior wetting of the mating surfaces and displacing air, Tpcm™ 7000 provides industry leading lowest thermal resistance.

Tpcm™ 7000 reliability has been demonstrated through exposure to 2000 hours of various aging tests resulting in proven dependability at an operating temperature of 125°C.

The specialty polymeric matrix offers superior pump out resistance when compared to thermally conductive greases and other phase change materials. Tpcm™ 7000 has been formulated to provide just the right tack, remaining on liners yet easily removeable for application.

### FEATURES & BENEFITS

- 7.5 W/mK bulk thermal conductivity
- Non silicone formulation that provides naturally tacky surface
- Fully characterized long term reliability
- No pump out
- Environmentally friendly solution that meets regulatory requirements including RoHS and REACH

### MARKETS

- Graphics Card
- Desktops
- Servers
- IGBTs
- Automotive
- Memory Modules
- Game Consoles

### AVAILABILITY

- Four thickness: 0.125mm, 0.2 mm, 0.25mm, 0.4mm (Tpcm 7125, Tpcm 7200, Tpcm 7250, Tpcm 7400 respectively)
- Sheets and Die Cuts, Die cut on strips w/tabs, Die cut on rolls w/tabs
- Designed for use with the TIM Print, Refer to "TIM Print Application Guide"

### STORAGE CONDITIONS

Shelf life:  
1 year from date of shipment in sealed bag  
Storage conditions:  
0 to 40°C in sealed bag (No humidity requirements.)  
15 to 35°C and <50%RH once opened.  
See "Instructions for Use" for more details

### TYPICAL PROPERTIES

PROPERTY	VALUE	TEST METHOD
<b>Construction</b>	Free Standing, Filled, Non-Silicone Thermoplastic	N/A
<b>Color</b>	Grey	Visual
<b>Thickness &amp; Tolerance</b>	0.125mm±0.025mm 0.200mm±0.025mm 0.250mm±0.025mm 0.400mm±0.050mm	
<b>Density</b>	2.5 g/cc	Helium Pycnometer
<b>Bulk Thermal Conductivity</b>	7.5 W/m-K	Hot Disk
<b>Thermal Resistance</b>		
10 psi & 70°C	0.10°C-cm²/W	ASTM D5470
50 psi & 70°C	0.06°C-cm²/W	
<b>Operating Temperature Range</b>	-40°C to 125°C	Laird Test Method
<b>Burn-in</b>	≥60C (heatsink side) (>3 minute and >25 psi)	Laird Test Method
<b>Minimum Bondline Thickness</b>	25µm	Laird Test Method
<b>Dielectric Constant</b>	31.54 @1MHz	ASTM D150
<b>Volume Resistivity</b>	5.4x10 <sup>15</sup> Ω-cm	ASTM D991
<b>UL Recognition</b>	V0	UL94

USA: +1.866.928.8181  
Europe: +49.8031.24600  
Asia: +86.755.2714.1166  
[www.laird.com](http://www.laird.com)

