



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 based 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 40C in sealed bag (No humidity requirements.)
15 to 35C and <50%RH once opened.
See "Instructions for Use" for more details

TYPICAL PROPERTIES

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

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