



PRODUCT DESCRIPTION

T-pcm™ AL52 is a thermally conductive phase change material coated on both sides of aluminum foil. At temperatures greater than 52C, T-pcm™ AL52 melts, and with minimum pressure, wets the heat sink and component surfaces to create a very thin, low thermal resistance interface. T-pcm™ AL52 has great heat spreading characteristics and won't flow from the interface. T-pcm™ AL52 has superior thermal performance comparable to the thermal grease and many other phase change products available. Since it is a free-standing film, it is easy to handle and is a great replacement for messy grease. T-pcm™ AL52 is available as individual die cut parts, kiss cut parts on rolls or sheets, and uncut rolls. T-pcm™ AL52 is available with or without adhesive.

FEATURES & BENEFITS

- 2.0 W/mK thermal conductivity
- Excellent heat spreading
- Non silicone
- Cost effective
- No pump out
- Easy rework

MARKETS

- Semiconductor Packaging
- Graphics Card
- Notebooks
- Servers
- IGBTs
- Automotive
- Memory Modules
- Game Consoles

AVAILABILITY

- Sheets and Die Cuts
- Uncut rolls
- With Adhesive coating
- Alternate PCM coating thicknesses

STORAGE CONDITIONS

- Store in original packaging
- Store at 15°C - 30°C & maximum 50% RH
- Shelf Life: 1 year from date of shipment when stored at above conditions

TYPICAL PROPERTIES

PROPERTY	VALUE	TEST METHOD
Construction	Wax based PCM coated on aluminum foil	N/A
Color	Light Grey	Visual
Thickness & Tolerance	0.075±0.025mm	
Density	2.1 g/cc	Helium Pycnometer
Thermal Conductivity	2.0 W/m-K	Hot Disk
Thermal Resistance 10 psi & 70°C	<0.25°C-cm²/W	ASTM D5470
Operating Temperature Range	-40°C to 125°C	Laird Test Method
Melting Point	52°C	Laird Test Method
Minimum Bondline Thickness	50µm	Laird Test Method
UL Recognition	V0	UL94

USA: +1.866.928.8181

Europe: +49.8031.24600

Asia: +86.755.2714.1166

www.laird.com



THR-DS-Tpcm AL52-07262022

Any information furnished by Laird Technologies, Inc. or any of its affiliates or agents ("Laird") is believed to be accurate and reliable. All specifications are subject to change without notice. Responsibility for the use and application of Laird materials rests with the end user. Laird makes no warranties as to the fitness, merchantability, suitability or non-infringement of any Laird materials or products for any specific or general uses. Laird shall not be liable for incidental or consequential damages of any kind. All Laird products are sold pursuant to the Laird's Terms and Conditions of sale in effect from time to time, a copy of which will be furnished upon request. © Copyright 2022 Laird Technologies, Inc. All Rights Reserved. Laird™, Laird Technologies™, the Laird Logo, and other marks are trademarks or registered trademarks of Laird Technologies, Inc. or an affiliate company thereof. DuPont™ is a trademark or registered trademark of DuPont de Nemours, Inc. or an affiliate company thereof. Other marks may be owned by third parties. Nothing herein provides a license under any Laird or any third-party intellectual property rights.