imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

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Tpcm[™] 580 Series Phase Change Material

Innovative **Technology** for a **Connected** World



FOR EXCEPTIONALLY LOW THERMAL RESISTANCE

The Tpcm[™] 580 Series is a high-performance thermal phase change material (PCM) designed to meet the thermal reliability and price requirements of high-end thermal applications. The Series is inherently tacky, flexible and exceptionally easy-to-use. The Tpcm 580 Series is available in four thicknesses: 0.003" (Tpcm 583), 0.005" (Tpcm 585), 0.008" (Tpcm 588), 0.010" (Tpcm 5810) and 0.016" (Tpcm 5816).

At temperatures above its transition temperature of 50°C (122°F), the Tpcm 580 Series begins to soften and flow, filling the microscopic irregularities of the components it comes into contact with. The result is an interface with minimal thermal contact resistance. Due to the gradual change in viscosity (softening), it minimizes migration (pump-out).

The Tpcm 580 Series can be supplied as cut parts in strips and rolls with top tabbed liners for easy application. The top tabbed liner can be removed immediately or provide a protective cover during shipping, and can be removed at assembly. It can also be supplied in sheets and custom die-cut configurations; and meets all environmental requirements including RoHS.

FEATURES AND BENEFITS

- Low total thermal resistance (0.013°C-in²/W at 50 psi)
- Inherently tacky and easy-to-use no adhesive required
- High reliability
- Meets all environmental requirements including RoHS
- Provides high value price / performance point

APPLICATIONS

- Microprocessors
- Chipsets
- Graphic processing chips
- Custom ASICS

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Americas: +1.888.246.9050 Europe: +46.31.704.67.57 Asia: +86.755.2714.1166

CLV-customerservice@lairdtech.com www.lairdtech.com/thermal



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Tpcm[™] 580 Series Phase Change Material

SPECIFICATIONS

PROPERTIES	Tpcm™ 583	Tpcm™ 585	Tpcm™ 588	Tpcm™ 5810	Tpcm™ 5816
Construction & composition	Non-reinforced film				
Color	Gray				
Thickness	0.003" (0.076 mm)	0.005" (0.127 mm)	0.008" (0.2 mm)	0.010" (0.25 mm)	0.016" (0.406 mm)
Density	2.87 g/cc				
Operating temperature range	-40°C to 125°C (-40°F to 257°F)				
Phase change softening temperature	50°C (122°F)				
Thermal resistance					
10 psi	0.019°C-in²/W (0.12°C-cm²/W)	0.020°C-in²/W (0.13°C-cm²/W)	0.020°C-in²/W (0.13°C-cm²/W)	0.020°C-in²/W (0.13°C-cm²/W)	0.025°C-in²/W 0.16°C-cm²/W)
20 psi	0.016°C-in²/W (0.10°C-cm²/W)	0.016°C-in²/W (0.10°C-cm²/W)	0.016°C-in²/W (0.10°C-cm²/W)	0.016°C-in²/W (0.10°C-cm²/W)	0.016°C-in²/W (0.10°C-cm²/W
50 psi	0.013°C-in²/W (0.08°C-cm²/W)	0.013°C-in²/W (0.08°C-cm²/W)	0.013°C-in²/W ((0.08°C-cm²/W)	0.013°C-in²/W (0.08°C-cm²/W)	0.013°C-in²/W (0.08°C-cm²/W)
Thermal conductivity	3.8 W/mK				
Volume resistivity	3.0 x 10 ¹² ohm-cm				

STANDARD PACKAGING

Sheets:	9″ x 9″ (228.6 mm x 228.6 mm)
	18" x 18" (457.2 mm x 457.2 mm)

Cut Parts: On strip with top tabbed liner Individual cut through

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THR-DS-TPCM580 1112

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