



### Tpcm™ FSF-52

Tpcm™ FSF-52 is a free standing film. It contains no substrate. At temperatures greater than 52°C, Tpcm™ FSF-52 changes into a molten state and, under low closure force, wets the heat sink and component surfaces to create a very thin, low thermal resistance interface. Tpcm™ FSF-52 is thixotropic and won't flow from the interface.

Tpcm™ FSF-52 has superior thermal performance comparable to the highest performing grease and phase change products available. Since it is a free standing film, it is easy to handle and is a great replacement for messy grease.

Tpcm™ FSF-52 is available as individual die cut parts, kiss cut parts on rolls or sheets, and uncut rolls. Tpcm™ FSF-52 is 0.005" (0.125mm) thick.

### FEATURES AND BENEFITS

- Superior thermal resistance after phase change at 52°C
- Thixotropic - won't bleed or flow out of the interface
- Easy to handle and is a great messy grease replacement
- Free standing film

### APPLICATIONS

- Microprocessors
- Chipsets
- Graphic processing chips
- Custom ASICS

PROPERTIES	TPCM FSF-52	TEST METHOD
Construction & Composition	Ceramic filled wax based free standing film	
Color	White	Visual
Thickness	0.005" (0.125mm)	
Thickness Tolerance	+/-0.001" (0.025mm)	
Density	2.0 g/cc	Helium Pycnometer
UL Flammability Rating	94 V0	
Phase Change Temperature	52°C	
Thermal Conductivity	0.9W/mK	ASTM D5470
Thermal Resistance @ 10 psi @ 50 psi	0.042 C-in <sup>2</sup> /W (0.27 C-cm <sup>2</sup> /W) 0.030 C-in <sup>2</sup> /W (0.19 C-cm <sup>2</sup> /W)	ASTM D5470 (modified)
Dielectric constant:@ 1KHz / 1MH	3.8 / 3.4	ASTM D150
Volume resistivity	7.9 x 10 <sup>13</sup>	ASTM D257

**Standard sheet sizes:** 18"x18" & 9"x9". Sheets are supplied with white release paper as top and bottom liner. Individual die cut shapes can also be supplied.

**Rolls:** 18" x 250 ft on 3" core, 18" x 250 ft on 10" core. Rolled on one white liner for 3" cores.

Rolled between two white liners for 10" cores and optional red liner can replace on white liner on 10" cores.

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