

FOR HIGH PERFORMANCE APPLICATIONS

Tpcm[™] 580SP is an exceptionally high performance, screen printable or stencilable thermal interface material designed to meet the thermal reliability and price requirements of high-end thermal applications. It contains a solvent to assist in processing. After drying off the solvent, Tpcm 580SP will be dry to the touch. Tpcm 580SP begins to soften and flow at temperatures around 50°C. At which point, Tpcm 580SP will fill the microscopic irregularities of the components it contacts. The result is an interface with minimal contact thermal resistance. Tpcm 580SP softens; it does not fully change state, resulting in minimal migration (pump out) under thermal cycling from room temperature to chip device operating temperatures.



FEATURES AND BENEFITS

- Low thermal resistance
- Ease of use for high volume manufacturing
- High thixotropic index
- Dry to the touch for pre-apply applications
- High thermal reliability, minimal pump out
- Re-flow compatible
- Cost Effective

MARKETS / APPLICATIONS

- Microprocessors
- Chipsets
- Graphic Processing Chips
- Custom ASICs

	TYPICAL PROPERTIES	TEST METHOD
Color	Gray	Visual
Construction	Paste	
Viscosity @ 25°C (Pa·s)	52 @ 1 s ⁻¹ 15 @ 10 s ⁻¹	Rheometer
Specific Gravity – w/o solvent (g/cm³)	2.34	Helium Pycnometer
Thermal Conductivity – w/o solvent (W/mK)	4.0	Hot Disk Thermal Constants Analyzer
Thermal Impedance		
(°C·in ² /W @ 50 psi)	0.011	ASTM D5470
(°C·cm ² /W @ 345 kPa)	0.071	
Softening Temperature (°C)	45-60	
Max Continuous Use Temp (°C)	125	
Operating Temperature Range (°C)	-40 to 125	

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