Tpcm™ 200SP
Phase Change Material

FOR LOW THERMAL RESISTANCE AND LOW OUTGASSING

Tpcm™ 200SP is a non-silicone base formulation thermal phase change material (PCM) designed to meet the thermal reliability and outgassing requirements of LED lighting applications, while offering a low total cost of ownership. It is specifically designed for use in various optical applications such as automotive headlamps, LED lighting, cameras, lasers and sensors. Tpcm™ 200SP is also well suited for the broader market where the thermal requirements are moderately demanding.

Tpcm 200SP is a screen printable phase change material which quickly dries to the touch so that it can be pre-applied to components for future assembly.

FEATURES AND BENEFITS

- Non-silicone based formulation
- 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

- LED lighting
- Automotive headlamps
- Microprocessors
- Chipsets
- Graphic Processing Chips
- Custom ASICs
- Optical applications (e.g, lasers)

	TYPICAL PROPERTIES	TEST METHOD
Color	White	Visual
Viscosity (Pa-s)	20	Rheometer
Specific Gravity – w/o solvent	3.2	Helium Pycnometer
Thermal Conductivity – w/o solvent (W/mK)	1.5	Hot Disk Thermal Constants Analyzer
Thermal Resistance (^{o}C-in^{2}/W @ 70^{o}C)	0.07 (@10 psi) 0.049 (@20 psi) 0.027 (@50 psi)	ASTM D5470
Softening Temperature (^{o}C)	45-60	
Max Continuous Use Temp (^{o}C)	125	
Operating Temperature Range (^{o}C)	-40 to 125	
UL Rating	94V0	
Thixotropic Index	>3	Rheometer

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