



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!



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## FOR LOW THERMAL RESISTANCE AND LOW OUTGASSING

Tpcm<sup>™</sup> 200SP is a silicone free, 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<sup>™</sup> 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

- Silicone-free
- 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 (°C-in <sup>2</sup> /W @ 70°C)	0.07 (@10 psi)	ASTM D5470
	0.049 (@20 psi)	
	0.027 (@50 psi)	
Softening Temperature (°C)	45-60	
Max Continuous Use Temp (°C)	125	
Operating Temperature Range (°C)	-40 to 125	
UL Rating	94V0	
Thixotropic Index	>3	Rheometer

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