

## **Technical Data Sheet**

### Phase Change Material (PCM)

EverTherm PCM Series is very soft and shapeable and exhibits excellent thermal conductivity in the vertical (z-plane) direction. This material is a solid material at room temperature. When exposed to 50-55°C it becomes a soft semi-flowing paste. This allows easy shaping conformation between 2 compressed surfaces. The material will return back into solid state when it reaches below 50-55°C temperature. It can also be customized into different shapes and sizes based on the requirements of the application.



#### **Material Properties**

- •Excellent thermal conductivity in the vertical z-plane
- Strong interface wetting ability, long-term reliable thermal conductivity
- Good flexibility & compression ratio
- Effectively reduce the coating thickness of the material between the interface
- Flexible and can be easily converted to custom sizes
- Thin and lightweight

## Applications

- Semiconductor device testing,
  - CPU, GPU, MCM Mobile phones & PC tablets, PCs, Servers, and cloud storage
- ✓ PDP, LED devices, IGBT Modules
- Optical communications equipment, medical equipment
- ♂ High frequency microprocessor
- ✓ Integrated Chip



| EVSP205A | Ν |
|----------|---|
|          | - |

| Item                                                                  | Detection    | Testing method |
|-----------------------------------------------------------------------|--------------|----------------|
| Color                                                                 | Gray         | Visual         |
| Thickness(mm)                                                         | 0.13mm       | ASTM D751      |
| Thickness tolerance                                                   | ±0.015mm     | ASTM D751      |
| Density/cm3)                                                          | 2.85         | ASTM D297      |
| Applicable temp                                                       | -40°C - 125° | () ***         |
| Phase change temperature                                              | 50°C - 55°C  | ***            |
| Volume Resistance (Ω.cm)                                              | 2.0 X 1010   | ASTM D257      |
| Thermal conductivity (W/m.K)                                          | 3.0          | ASTM D5470     |
| Dielectric constant(1MHZ)                                             | 3.0          | ASTM D150      |
| Thermal impedance@10psi(℃*in2/W)                                      | 0.05         | ASTM D5470     |
| RoHS                                                                  | PASS         | IEC 62321      |
| Halogen                                                               | PASS         | EN14582        |
| REACH                                                                 | PASS         | EN14372        |
| Standard Sheet Size<br>(Note: Other sheet sizes may be available upon |              | 05mm x 305mm   |

Test fixtures using ASTM D5470. Recorded values include interface thermal resistance. These values are for reference only. The actual application performance is directly related to the applied surface roughness, flatness and pressure.

# **CR Technology, Inc**

💿 55 Chase St. Methuen,

Massachusetts 01844

- sales@crtechinc.com
- 🕓 978.681.5300



**Note:** The information provided herein is accurate at time of publication. It is the responsibility of the end-user to confirm compliance to their application. All test data is typical. Therefore, these recommendations and data are for reference only and not as a product warranty.