



# PSX-D

May 2011

## PRODUCT DESCRIPTION

PSX-D provides the following product characteristics:

<b>Technology</b>	Phase Change Thermal Interface Material
<b>Appearance</b>	Grey
<b>Phase change temperature</b>	45 °C
<b>Product Benefits</b>	<ul style="list-style-type: none"> <li>• Reworkable</li> <li>• Highly efficient thermal transfer</li> <li>• Thixotropic above phase change temperature</li> </ul>
<b>Application Method</b>	Stencil, Needle dispensed, Screen print or Manually apply
<b>Typical Assembly Applications</b>	Microprocessors, GPUs, Multichip modules, ASICs, IGBT, FBDIMM/Memory, Lidded processor applications and Active heat sinks in electronic applications
<b>Application</b>	Thermal management
<b>Substrate</b>	None

PSX-D is a reworkable and repeatable phase change thermal interface material suitable for use between a heat sink and a variety of heat dissipating components. This material offers the enhanced performance and reliability of a phase change thermal interface material with the application ease of thermal grease.

## TYPICAL PROPERTIES

Shelf Life @ 25°C, months	≥6
<b>Printed Material:</b>	
Casson Base Viscosity @ 25 °C, mPa·s (cP):	
Haake 550, PK1, 1° :	
@ 1 rpm	100,000
@ 10 rpm	60,000
Specific Gravity	1.8
<b>Solid Material:</b>	
Specific Gravity	2.0
Thermal Conductivity, W/mK	3.4
Volumetric Expansion, %	15

## TYPICAL DRYING PERFORMANCE

### Recommended Drying Conditions

<b>Thickness, mm</b> 2 hours @ 22°C	0.025
<b>Thickness, mm</b> 5 hours @ 22°C	0.051
<b>Thickness, mm</b> 9 hours @ 22°C	0.102
<b>Thickness, mm</b> 24 hours @ 22°C	0.203

## GENERAL INFORMATION

**For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).**

## DIRECTIONS FOR USE

1. Once the compound is applied, it will dry to a solid phase change material. Drying is required for optimal thermal performance.
2. The material flows at the phase change temperature and conforms to the surface features of the heat sink and component.
3. Upon flow, air is expelled from the interface, reducing thermal impedance and the material performs as a highly efficient thermal transfer material.

## Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

**Optimal Storage: Below 27°C. Storage greater than 27°C can adversely affect product properties.**

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

## Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on specifications for this product.

## Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$   
 $\text{kV/mm} \times 25.4 = \text{V/mil}$   
 $\text{mm} / 25.4 = \text{inches}$   
 $\text{N} \times 0.225 = \text{lb}$   
 $\text{N/mm} \times 5.71 = \text{lb/in}$   
 $\text{N/mm}^2 \times 145 = \text{psi}$   
 $\text{MPa} \times 145 = \text{psi}$   
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$   
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$   
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$   
 $\text{mPa}\cdot\text{s} = \text{cP}$



**Note**

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Reference 0.1