

LOCTITE TCF 4000 PXF

April 2014

PRODUCT DESCRIPTION

LOCTITE TCF 4000 PXF provides the following product characteristics:

Technology	Phase Change	
Appearance	Gray	
Application Method	Manual application	
Product Benefits	 Low thermal resistance 	
	Non silicone	
	No pump-out, dry-out or pull-out	
Phase change temperature	45 °C	
Application	Thermal management	
Typical Assembly Applications	Thermal grease replacement in computing applications, Lidded and bare die processor applications and Used between any heat generating electrically isolated component and a heat sink	

LOCTITE TCF 4000 PXF is a reworkable phase change thermal interface material suitable for use between a heat sink and variety heat dissipating components. The material flows at the phase change temperature, conforming to the surface features of the components. Upon flow, air is expelled from the interface, reducing thermal impedance, performing as a highly efficient thermal transfer material. Custom parts are also available upon request with low cost tooling.

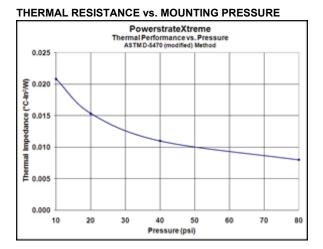
TYPICAL PROPERTIES

PXF-8 with

Volumetric Expansion on phase change, %	15
Thermal Impedance , ASTM D5470:	
@ 20 psi, °C-in²/W	0.015
@ 80 psi, °C-in²/W	0.008
Compound Thickness Before Phase Change:	
Inches	0.008
(mm)	(0.2)
Viscosity Above Phase Change Temp	thixotropic

PXF-16

Volumetric Expansion on phase change, %	15
Thermal Impedance, ASTM D5470:	
@ 20 psi, °C-in²/W	0.023
@ 80 psi, °C-in²/W	0.019
Compound Thickness Before Phase Change:	
Inches	0.016
(mm)	(0.4)
Viscosity Above Phase Change Temp	thixotropic



GENERAL INFORMATION

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

DIRECTIONS FOR USE

- 1. This product is packaged as a free-standing film between two release liners and is supplied as a die cut preform to match a wide variety of applications.
- 2. Currently supplied in two compound thicknesses, multiple thicknesses will soon be available to match surface finishes and flatness considerations in the interface area.
- 3. LOCTITE TCF 4000 PXF is completely reworkable without solvents and is easier to remove than previous formulations.
- 4. If a clean surface is required, any compound present can easily be removed with mineral spirits. No silicones are utilized in the formulation of the phase change compound.
- Unlike previous versions of Powerstrate, LOCTITE TCF 4000 PXF does not require adhesive edge strips for heatsink attach applications. The "tacky" nature of the product allows for it to naturally adhere to the heatsink surface.



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Storage

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

Optimal Storage: 23 °C. Storage greater than 40 °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

 $(^{\circ}C x 1.8) + 32 = ^{\circ}F$ kV/mm x 25.4 = V/mil mm / 25.4 = inches N x 0.225 = lb N/mm x 5.71 = lb/in N/mm² x 145 = psi MPa = N/mm² MPa x 145 = psi N·m x 8.851 = lb·in N·m x 0.738 = lb·ft N·mm x 0.142 = oz·in mPa·s = cP

Disclaimer

Note:

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Reference N/A