Technical Data Sheet

LOCTITE TCP 7000

February 2017

PRODUCT DESCRIPTION

LOCTITE TCP 7000 provides the following product characteristics:

Technology	Phase Change Thermal Interface
Appearance	Gray
Application Method	Stencil or Screen print
Operating Temperature Range	up to 150ºC
Typical Assembly Applications	Microprocessors, GPUs, Multichip modules, ASICs, IGBT, FBDIMM/Memory, Lidded processor applications and Active heat sinks in electronic applications
Application	Thermal management

LOCTITE TCP 7000 is a non-silicone and reworkable phase change material designed for use between heat generating devices and the surfaces to which they are mounted or other heat dissipating surfaces. This material offers the benefits of a phase change material by providing no pump out, dry out or silicone migration along with the enhanced performance, reliability and application ease of thermal grease.

LOCTITE TCP 7000 is supplied in cartridges. Other packaging formats are available upon request.

LOCTITE TCP 7000 has been formulated for stencil printing and not for inline dispense processes.

TYPICAL PROPERTIES

Specific Gravity, gm/cc	2
Storage Life @ 2 to 8°C, days	365
Flash Point - See SDS	

TYPICAL DRYING PERFORMANCE

Recommended Drying Conditions

@ 0.051 mm Thickness:
30 hours @ 22°C or
22 minutes @ 60°C or
3 minutes @ 125°C

@ 0.152 mm Thickness:
50 hours @ 22°C or
50 minutes @ 60°C or
4.5 minutes @ 125°C

@ 0.254 mm Thickness:
65 hours @ 22°C or
65 minutes @ 60°C or
8 minutes @ 125°C

The above drying profile is a guideline recommendation. Conditions (time and temperature) may vary based on customers' experience and their application requirements, as well as customer drying equipment, oven loading and actual oven temperatures.

TYPICAL PROPERTIES OF DRIED MATERIAL

Physical Properties

Phase Change Temperature, DSC, ºC	45
Thermal Conductivity, ASTM D5470, W/(m-K)	>3.0

GENERAL INFORMATION

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

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.

Application:

Printing

1. Some bubbles may be present in the cartridge containing the material.
2. Place material onto the screen. With the substrate under the screen, draw the material down, applying the material onto the substrate.
3. Allow the material to dry per drying conditions listed on the TDS.
4. Recommended maximum thickness is 10 mils (254 µm) to ensure complete drying under normal conditions.

STORAGE:

Store product in the unopened container in a cool dry well ventilated area. Storage information may be indicated on the product container labeling.

Optimal Storage : 2 to 8 °C

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

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Note:
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Reference 0.2