Technical Data Sheet

LOCTITE TCP 8175M1

November 2015

PRODUCT DESCRIPTION

LOCTITE TCP 8175M1 provides the following product characteristics:

Technology	Silicone grease
Appearance	White
Operating Temperature	-40 to +200 °C
Application Method	Stencil, Screen print or Manual application
Typical Assembly Applications	• Heat sink applications in semiconductor devices • Thermostats in thermoelectric devices • Radiators and mounting surfaces • Power resistors and chassis
Application	Thermal management

LOCTITE TCP 8175M1 thermal grease is recommended for use in assembly of parts requiring high temperature heat transfer. It is used to provide a conductive heat path between heat generating electronic components and heat dissipating structures. This material retains its paste-like consistency, and will not harden, after long exposure to elevated temperatures.

LOCTITE TCP 8175M1 contains 1% of a 175µm spacer.

TYPICAL PROPERTIES

Viscosity @ 25ºC, Rheometer, mPa·s (cP): @ Shear rate of 5 s^{-1}	180,000
Thixotropic Index (0.5/5 s^{-1})	6
Density, g/cc	2.4
Fineness, µm	175
Solids Content (), %	78
Shelf Life @ 18 to 25°C (from date of manufacture), days	365
Thermal Conductivity , Laser Flash, W/(m-K)	1.2
Weight Loss after 24 hrs @ 100ºC, %	0.2
Volume Resistivity, ohm-cm	8.2×10^{12}
Dielectric Strength, kV/mm	12.3
Flash Point - See SDS	

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. For best results parts to be covered should be clean and free of oil and debris.
2. LOCTITE TCP 8175M1 may be dispensed from syringes, cartridges, automatic dispensing equipment or other similar devices.
3. Thin films are conveniently applied with a stiff brush or squeegee.
4. Storage for long periods of time at elevated temperatures may result in slight separation of the conductive fillers from the silicone oil. If this condition is seen to exist, the fillers may be easily redispersed by hand or mechanical mixing.
5. In order to obtain the optimal thermal conductivity of LOCTITE TCP 8175M1, any entrained air should be removed in a vacuum chamber. In thin films, this is generally unnecessary.

Storage

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

Optimal Storage : 18 to 25 °C Storage greater than 25ºC 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

(°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

Disclaimer

Note:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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