



BERGQUIST microTIM mTIM 1013

February 2022

PRODUCT DESCRIPTION

Dielectric Coated Metal Substrate Optimizes Performance.

Technology	Silicone thermoset
Appearance	Tan
Thickness	24 μm
Application	Thermal management, microTIM
Operating Temperature	-40 to 125°C
Flammability Rating	UL 94 V-0

FEATURES AND BENEFITS

- Durability: Consistent thermal performance up to 500 POM insertion and pulls.

TYPICAL APPLICATIONS

- Heat sinks used in riding cage assemblies used in switches, servers, and routers
- Aluminum heat sinks with Alodine Type 2, Class 1 A, ROHS certified surface finish
- Flatness coating interface requirements: ISO Flatness <75 μm and Surface Roughness <3 μm

BERGQUIST microTIM mTIM 1013 is a durable, thermally conductive thin film coating applied on the heat sink contact surface. It is specially formulated to enhance thermal performance and durability of heat generating devices, such as pluggable optical modules, and aluminum heat sink assembly.

BERGQUIST microTIM mTIM 1013 provides robustness and resilience to the repeated pull and plug action of insertion devices while delivering good thermal impedance. This film is elastomeric and resists abrasion and functions on a wide range of service temperatures from to -40 to +175°C.

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties

Film Thickness, Optical Profilometer, μm	24 $\pm$ 3
Silicone Extraction, NEBS	Pass
Durability Performance, mass loss, %	<15
Extraction Force, MTS test system set-up, lb-f	<11.2
UL Flammability Rating	UL 94 V-0

Electrical Properties

Volume Resistivity, ASTM D257, Gohm-meter	>1
---	----

Thermal Performance

Thermal Performance, 5°C improvement over 0.33 metal to metal interface baseline at 16W power, measured on TE 2299940-3, °C/W

GENERAL INFORMATION

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

Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local Henkel representative for assistance and recommendations on the specifications of this product.

STORAGE

Storage information may be indicated on the product container labeling.

Optimal Storage: 25°C.

If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

Conversions

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

Disclaimer

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. Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.



In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:

In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:

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. 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.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Corporation, or Henkel Canada Corporation, the following disclaimer is applicable:

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

Trademark usage

Except as otherwise noted, all trademarks in this document are trademarks of Henkel Corporation in the U.S. and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office.

Reference 2