



BERGQUIST microTIM mTIM 1029

September 2020

PRODUCT DESCRIPTION

Dielectric Coated Metal Substrate Optimizes Performance.

Technology	Silicone thermoset
Appearance	Gray
Thickness	25 ±5 µm
Application	Thermal management, microTIM
Operating Temperature	up to 175°C

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
- Copper heat sinks with either Tin plating, Class A to ASTM B545 or Zinc plating type 3 to ASTM B633 surface finish
- Flatness coating interface requirements: ISO Flatness <75 µm and Surface Roughness <3 µm

BERGQUIST microTIM mTIM 1029 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 copper heat sinks assembly

BERGQUIST microTIM mTIM 1029 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	25 ± 5
Silicone Extraction, NEBS	Pass
Durability Performance, mass loss, %	<15
Extraction Force, MTS test system set-up, lb-f	<11.2
Flammability Rating, UL 94	Pending

Electrical Properties

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

Thermal Performance, 5°C improvement over metal to metal interface baseline at 16W power, measured on TE 2299940-3, °C/W	0.33
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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 quality department for assistance and recommendations on specifications for 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

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

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