

TECHNICAL BULLETIN

TCP-101

Form-in-place, Thermally Conductive Gap filler putty

Product Description

TCP-101 is **NON-SILICONE** based highly viscous putty. Naturally tacky, Non-Flowable, Non-Curable material heavily filled with heat-conductive metal oxides and proprietary binders. These combinations provide high thermal conductivity, low bleed, high temperature stability and no contamination properties.

TCP-101 is cost-effective high-performance Form-in-place, Thermally Conductive Gap filler putty. The highly thixotropic and highly conformable nature of the material allow to fill in air voids and air gaps between heat generating devices and heat sinks or metal chassis with rough surfaces and high stack up tolerances.

Key Features and Benefits

- *Highly Conformable, Naturally tacky.*
- *High Thermal Conductivity. (2.1 W/m. °K)*
- *Electrically Isolating material.*
- *Exceptionally low bleed and evaporation.*
- *The softness relieves stress , absorbs shocks and minimized damage*

- Will Not Contaminate Solder Bath or Other Devices.
- Non-Toxic.
- RoHS compliance

Typical Applications

- Between chassis wall and other surface
- CDRAM Cooling
- Area where needs to be transferred heat to a frame, chassis, or other type of heat spreader.
- Between CPU and Heat spreader.
- Between semiconductor and heat sink.

Shelf-Life

TCP-101 has a shelf-life of 5 years at room temperature (25°C) in unopened containers. Slight settling of the filler may occur during long-term storage. In this case, re-disperse the filler by hand or with mechanical mixing. Refrigerate material at 0-10°C to avoid any settling.

Clean Up

Standard approved clean-up and disposal procedures should be followed in every situation. The use of disposable containers and utensils are recommended whenever possible to simplify and expedite clean-up. However, when disposable containers are impractical, **TCP-101** can be removed by cleaning solvents with such as Mineral Spirit (Paint Thinner), Heptane or Isopropyl Alcohol.

Typical Properties

<i>Property</i>	<i>Value</i>
Consistency	Heavy Paste
Specific Gravity, @ 25°C	2.7
Color:	White/Light Grey
Evaporation, @ 200°C, 24 Hrs., %/Wt.	0.5
Thermal Conductivity, (ASTM-D5470)	
W/m.°K	2.1
Electrical Properties :	392
Dielectric strength. (ASTM D150) 0.05" gap, V/mil	
Dielectric constant. (ASTM D150) 25°C @ 1,000 Hz.	4.5
Dissipation factor. (ASTM D150) 25°C @ 1,000 Hz.	0.003
Volume Resistivity. (ASTM D257)Ohm-cm.	2.1x 10 ¹⁴
Operating Temperature Range.	-55°C to 200°C

DISCLAIMER: All data given here is offered as a guide to the use of these materials and not as a guarantee of their performance. The user should evaluate their suitability for own purposes. Properties are typical and should not be used in preparing specifications. Statements are not to be construed as recommendations to infringe any patent.