



ISO-9001-2015 Certified

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TECHNICAL BULLETIN

TCP-101-HT

Form-in-place, Thermally Conductive Gap filler putty

Product Description

TCP-101-HT 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-HT is a 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, steps, and high stack up tolerances.

Typical Properties

Property	Value
Consistency	Heavy Paste
Specific Gravity, @ 25°C	2.2
Color:	Grey
Evaporation, @ 200°C, 24 Hrs., %/Wt.	0.5
Thermal Conductivity, (ASTM-D5470)	
W/m.°K	3.2
Electrical Properties :	219
Dielectric strength. (ASTM D150) 0.05" gap, V/mil	
Dielectric constant. (ASTM D150) 25°C @ 1,000 Hz.	4.0
Dissipation factor. (ASTM D150) 25°C @ 1,000 Hz.	0.002
Volume Resistivity. (ASTM D257) Ohm-cm.	2.6x 10 ¹²
Operating Temperature Range.	-55°C to 200°C

Shelf-Life

TCP-101HT 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-HT can be removed by cleaning solvents with such as Mineral Spirit (Paint Thinner), Heptane or Isopropyl Alcohol.

Key Features and Benefits

• Highly Conformable
• High Thermal Conductivity. (3.2 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

Typical Applications

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

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.