Product Data Sheet

RoHS/WEEE, REACH, and Halogen Free

MicroCoat Technologies
http:www.m-coat.com
Unparalleled in Polymer Coatings and Adhesives Technology

Product "Frigid 66"

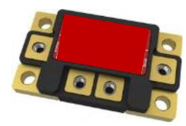
MCT TC66-C Thermally Conductive Paste

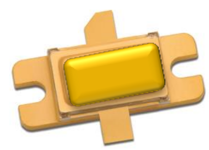
NON SILVER BEARING *THERMALLY* CONDUCTIVE COMPOUND
TESTED TO >400^{O}C

DESCRIPTION

MicroCoat MCT-TC66-C is a non-curing, highly thermally conductive, non-electrically conductive, thermal interface material. This product is designed to maximize heat dissipation by maximizing the thermal conductivity and minimizing thermal contact resistance. This material provides intimate contact with the heat source and the heat sink and has excellent high temperature properties and will not change viscosity after dispensing. Applications include thermal grease replacement, thermal gasket replacement, and thermal management of any device where fast and efficient heat transfer is critical.

UNIQUE FEATURES






- Excellent Thermal Conductivity
- Electrically Insulating
- Will not form Dendrites
- Reworkable (Non-curing)
- Excellent Rheological Properties
- Great Intimate Contact
- No spread or runout at high temperatures
- No Particle Separation at High Temps

TYPICAL PROPERTIES

Property	
Viscosity – Brookfield HAT Viscometer @ 5 rpm @ 25º C (cps)	~250K+
Specific Gravity g/cc	2.37
Viscosity at Elevated Temperature (cps)	*NO CHANGE*
Solids (%)	100
Color (NA)	Reddish Brown
Thermal Conductivity W/mK	~20
Dielectric Strength (V/mil)	Est 2500 V/mil
Volume Resistivity (ohms – cm)	TBD
Maximum Continuous Operating Temperature (°C)	400°C
Post Cure Ionics 883/5011.3.8.7	Cl=<6.8ppm, Na+=<3.6ppm, K+=<1.1ppm

Heat resistance of MCT TC66-C					
Duration (Hrs)	**Initial**	**100**	**500**	**1000**	**5000**
Thermal Conductivity (W/mK)	**20**	**20**	**20**	**20**	**20**
Hardness (Shore 00)	**45**	**45**	**45**	**45**	**45**
Appearance	**–**	**No effect**	**No effect**	**No effect**	**No effect**

HANDLING AND APPLICATION

MCT-TC66-C is ready to use as received. Material should be applied to the part then the two parts pressed together. No cure is required

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Application Techniques

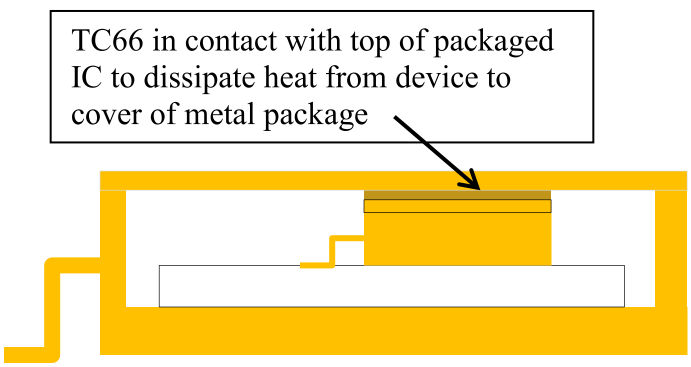
• To obtain optimum thermal conductivity, *__the wetting surfaces must be maximized__*. For better contact, clean, dry and a well unified surface condition is recommended. Typical surface cleaning solvents are isopropyl alcohol and water (rubbing alcohol) or heptane. Note: Be sure to follow manufacturer's safety precautions and directions for use when using solvents. Some testing has indicated that alcohol wets better on some metals than IPA

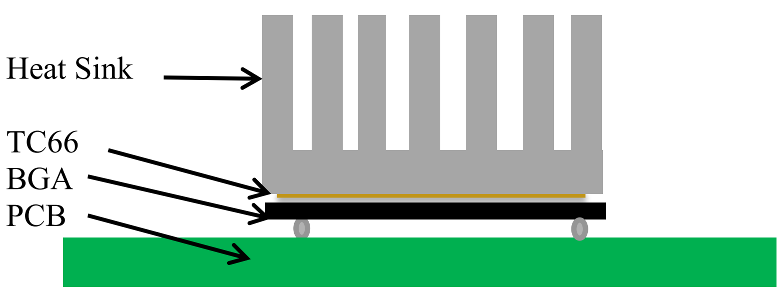
__Thermal conductivity__ vs. thermal impedance in adhesive bondlines. Although some adhesive manufacturers may claim to have bulk thermal conductivity values higher than 30 W/m°K, device manufacturers need to appreciate that the bulk value is only an indicator of potential for heat transfer through the adhesive bondline. The material with the lowest thermal impedance should actually be the goal, as it is with this that the best heat transfer can actually be obtained. The factors that affect thermal impedance include: adhesion at the interface, surface wetting, thin adhesive bondlines and void-free bondlines. If the ***interfacial* adhesion is weak or impacted by filler alignment or solvent, then the thermal resistance across the interface will be so great that the bulk resistivity becomes meaningless.

__SHELF LIFE @ 25°C/50% RH in tightly sealed container 12 months from DOM__

__HEALTH AND SAFETY__

Use with adequate ventilation. Keep away from sparks and open flames. Avoid prolonged contact with skin and breathing of vapors. Wash with soap and water to remove from skin.





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