Techsil® HTC - Heat Transfer Compound

Techsil® HTC is a non-curing heat transfer paste, designed for use as a thermal interface material. It is recommended where the efficient and reliable thermal coupling of electronic components or heat dissipation between any surfaces are required. Techsil® HTC is a non-silicone paste, suitable for applications where silicones are prohibited, thus avoiding issues with silicone and low molecular weight siloxane migration.

- General purpose thermal management paste; cost effective heat dissipation
- Based on a non-silicone oil; avoids issues with silicone and LMW siloxane migration
- Good thermal conductivity; designed for use as a thermal interface material
- Non-curing paste; allows simple and efficient rework of components if required

Approvals

RoHS-2 Compliant (2011/65/EU):	Yes
NATO Stock No. – EHTC10S:	6850-99-775-5881
NATO Stock No. – EHTC20S:	5835-99-775-5881
NATO Stock No. – EHTC35S:	5975-99-512-1473

Typical Properties

Colour:	White
Base:	Blend of synthetic fluids
Thermo-conductive Component:	Powdered metal oxides
Density @ 20°C (g/ml):	2.04
Cone Penetration @ 20 C:	300
Viscosity @ 1rpm (Pa s):	202-205
Thermal Conductivity (Guarded Hot Plate):	0.9 W/m.K
Thermal Conductivity (Heat Flow):	0.7 W/m.K (calculated)
Temperature Range:	-50°C to +130°C
Weight Loss after 96 hours @ 100°C:	<1.0%
Permittivity @ 1 GHz:	4.2
Specific Resistance:	1 x 1014 Ohms/cm
Dielectric Strength:	42 kV/mm

Directions for Use

Thermal pastes can be applied to the base and mounting studs of diodes, transistors, thyristors, heat sinks, silicone rectifiers and semi-conductors, thermostats, power resistors and radiators, to name but a few. When the contact surfaces are placed together, a firm metal-to-metal contact will only be achieved on 40 – 60% of the interface, depending on the smoothness of the surfaces. This means that air, which has relatively poor thermal conductivity, will account for the balance of the interface. Only a small amount of compound is required to fill these spaces and thus dramatically increase the effective surface area for heat transfer.

It is important to note that the quality of application of a thermal paste can be as important as the thermal conductivity of the material applied; best results are achieved when a uniform, thin coat is applied between the mating surfaces. Apply a thin layer of compound to one of the contact surfaces using a brush, spatula, roller, automated system or screen printing technique. Ensure that the entire interface is covered to avoid hot-spots from forming. Any excess paste squeezed out during the mounting process should be removed.

Contact Details

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DISCLAIMER

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