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COOL-PAD
CP7135-KP

Flexible From -55 to 150°C

>5000 V Insulation

High Thermal Conductivity

Melt-Flow @130°C with Pressure

UL 94V-O Rating

IDEAL FOR:

- Thermal Grease Replacement
- Thermal Gasket Replacement
- Thermal Adhesive-Interface
- High Temperature Application

DESCRIPTION:

CP7135-KP is a kapton lined, high voltage insulation protected version of CP7135. It is an aluminum oxide filled, electrically insulating, medium bond strength thermalpad interface material. It is designed to enhance thermal transfer from power device to heat-sink. CP7135-KP has good thermal conductivity and is strong for easy handling at room temperature. CP7135-KP can form good bond with placement pressure similar to paste adhesive.

When power device goes into operation and generate heat in excess of 135°C, CP7135-KP will "melt/flow" to form intimate interfaces between the contact surfaces and thus dramatically reduces the thermal impedance.

AVAILABILITY:

CP7135-KP is available in sheet sizes, reel, and as custom preforms. Standard thicknesses are 0.006", 0.012", 0.020" and 0.040"(1.0 mm). Special thicknesses are available.

APPLICATION PROCEDURES:

- (1) Cut or pre-cut to desired size and shape.
- (2) Place COOL-PAD between device and heat-sink.
- (3) If it is pre-applied onto heatsink or CPU, the micromesh protected surface should face outward.
- (4) Provide mechanical fastening with suitable force of more than 3 psi.

TYPICAL PROPERTIES*

Electrical Resistivity (25°C/ 1s is)	>1x10 ¹⁴ ohm-cm
Dielectric Strength (Volts/mil)	>5000V/layer
Glass Transition Temp.(°C)	-55
Lap-Shear Strength	>600 psi >4.1 N/mm ²
Device Push-off Strength	>800 psi <5.5N/mm ²
Hardness (Type)	<60 (A)
Cured Density (gm/cc)	2.2
Thermal Conductivity	14 Btu-in/hr-ft ² -°F 2.0 W/m-°C
Linear Thermal Expansion Coeff. (ppm/°C)	110
Maximum Continuous Operation Temp. (°C)	150

* Properties given are typical values and not intended for use in preparing specifications. The user is advised to evaluate the product in the manner the product is intended to be used in manufacturing and in the final product.

Melt/Flow Conditions

<u>Temperature</u>	<u>Time</u>	<u>Pressure</u>
>135°C	0.5 sec	>3 psi
>220°C	0.5 sec	>0psi

SHELF LIFE:

<u>Storage temperature</u>	<u>Shelf Life</u>
25°C	1 yr

CAUTION: This product may cause skin irritation. Avoid skin contact. If contact does occur, wash immediately with soap and water. Please refer to MSDS for more details.

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