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COOL-PAD
CP7138-2KP

Flexible From -55 to 150°C
"Phase-Change" Dry Pad
High Melt-flow >135°C
Bond with Placement Pressure
>1000 V Insulation @ 3 mil

IDEAL FOR:

- Thermal Grease Replacement
- Thermal Gasket Replacement
- Thermal Adhesive Interface
- BGA Die Heatspreader Interface

DESCRIPTION:

CP7138-2KP is an aluminum nitride crystallite filled, electrically insulating, medium bond strength thermal interface material protected with polyimide sheet. It is designed to enhance thermal transfer from power device to heat-sink. CP7138-2KP is dry and handles well with automated excise-placement equipment and forms a good bond with placement pressure similar to paste adhesives.

UL 94V-O / UL 746A Rated

TYPICAL PROPERTIES*

Electrical Resistivity (25°C/ 1s is)	>1x10 ¹⁴ ohm-cm
Dielectric Strength (Volts/mil)	>3000
Glass Transition Temp.(°C)	-55
Lap-Shear Strength	>600 psi >4.1 N/mm ²
Device Push-off Strength	>800 psi <5.5 N/mm ²
Hardness (Type)	<60 (A)
Cured Density (gm/cc)	2.5
Thermal Conductivity	28 Btu-in/hr-ft ² -°F 4.0 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.

AVAILABILITY:

CP7138-2KP is available in sheet sizes, reel, and as custom preforms. Standard thicknesses are 0.003" and 0.006". Special thicknesses are available.

APPLICATION PROCEDURES:

- (1) Cut or pre-cut to desired size and shape.
- (2) Place COOL-PAD between device and heatspreader or heat-sink.
- (3) If it is pre-applied onto heatsink, heatspreader or CPU, micromesh protected surface should face out.
- (4) Place onto parts that are heated above 135°C using nominal placement pressure

Melt/Flow Conditions

Temperature	Time	Pressure
>135°C	0.5 sec	Nominal

SHELF LIFE:

Storage temperature	Shelf Life
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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