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**COOL-BOND**  
**CB7138**

**Flexible From -55 to 150°C**  
**High Melt-flow >135°C**  
**>1000 V Insulation @ 3 mil**  
**Outstanding Thermal Conductivity**  
**UL 94V-0/ UL 746A Rated**

**IDEAL FOR:**

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

**DESCRIPTION:**

CB7138 is an aluminum nitride crystallite filled, electrically insulating, medium bond strength thermal interface material. It is designed to enhance thermal transfer from power device to heat-sink. CB7138 has good melt-flow to form instant bond upon reaching high enough temperature. CB7138 is dry and handles well with automated excise-placement equipment and forms good bond with placement pressure similar to paste adhesives.

UL 94V-O / UL 746A Rated

**TYPICAL PROPERTIES\***

Electrical Resistivity ( 25°C/ 1s is )	>1x10 <sup>14</sup> ohm-cm
Dielectric Strength (Volts/mil)	>550
Glass Transition Temp.(°C)	-55
Lap-Shear Strength	N/A
Device Push-off Strength	>600 psi >4.1 N/mm <sup>2</sup>
Hardness (Type)	<60 (A)
Cured Density (gm/cc)	2.5
Thermal Conductivity	28 Btu-in/hr-ft <sup>2</sup> -°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:**

CB7138 is available in sheet sizes, reel, and as custom preforms. Standard thicknesses are 0.003", 0.006", 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-BOND between device and heatspreader or heat-sink.
- ( 3 ) Place onto parts heated above 135°C with nominal placement pressure.

**Melt/Flow Conditions**

<u>Temperature</u>	<u>Time</u>	<u>Pressure</u>
>135°C	0.5 sec	Nominal

**SHELF LIFE:**

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

**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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