



AI TECHNOLOGY INC
 70 Washington Road
 Princeton Jct., NJ 08550
 (609) 799-9388 fax (609) 799-9308
 E-Mail: ait@aitechnology.com
 Internet: http://www.aitechnology.com

Medium Strength Adhesive

"Phase-Change" Dry Pad

Melt-Flow >200°C @ <3 psi

High Thermal Conductivity

High Electrical Conductivity

IDEAL FOR:

- Silicone Thermal Gasket Replacement
- Thermal Grease Replacement
- Medium Strength Reworkable Adhesive

DESCRIPTION:

CB8130 is a silver filled, electrically conductive, medium bond strength adhesive designed to enhance thermal and electrical transfer from die/wafer to heat-sink during burn-in testing. CB8130 has good thermal conductivity and is dry for easy handling at room temperature. It can be die-cut into any shape or size for power transistors and components. The medium bond strength is applicable up to 110°C.

When a power device goes into operation and generates heat in excess of 190°C, CB8130 will "melt" or "reflow" to form intimate interfaces between the contact surfaces and thus dramatically reduces the thermal and electrical impedance. It provides grounding and cooling for the heat generating devices.

AVAILABILITY:

CB8130 is available in sheet sizes or as custom preforms. Standard thicknesses are 0.003" and 0.006". Special thicknesses are available.

APPLICATION PROCEDURES:

- (1) Keep product at room temperature for 15 minutes before using.
- (2) Cut or pre-cut to desired size and shape.
- (3) Place conductive COOL-BOND between device and heat-sink.
- (4) Clamp with suitable force > 3 psi..

CAUTION: This product may cause skin irritation. Avoid skin contact. If contact does occur, wash immediately with soap and water. Please refer SDS for more details. The information contained herein is believed to be reliable. All recommendations or suggestions are made without guarantee inasmuch as conditions and methods of commercial use are beyond our control. 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 to be used in manufacturing and in the final product. Under no circumstance shall AI Technology be liable for accidental, consequential or other damages arising from the use or handling of this product.

While AI Technology owns all proprietary rights of material formulations of its products, specific usage in the manufacturing of certain products may involve patent rights of other companies.

COOL-BOND
CB8130

TYPICAL PROPERTIES*

Electrical Resistivity (25 °C/ As is)	<4X10 ⁻⁴ ohm-cm
Dielectric Strength (Volts/mil)	N/A
Glass Transition Temp.(°C)	-55 ±10%
Lap-Shear Strength	<400 psi <2.8 N/mm ²
Device Push-off Strength	>400 psi >2.8 N/mm ²
Hardness (Type)	<40 (A)
Cured Density (gm/cc)	4.5 ±10%
Thermal Conductivity	>55 Btu-in/hr-ft ² -°F ±10% >7.9 W/m-°C ±10%
Linear Thermal Expansion Coeff. (ppm/°C)	110 ±15%
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>
>200°C	0.5 sec	<3 psi
>130°C	0.5 sec	>3 psi

SHELF LIFE:

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