



**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

**COOL-BOND**  
**CB8133**

**Flexible From -55 to 150°C**  
**"Phase-Change" Adhesive**  
**High Melt-flow >135°C**  
**Bond with Placement Pressure**  
**Outstanding Electrical and Thermal**

**IDEAL FOR:**

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

**DESCRIPTION:**

CB8133 is an metal filled, medium bond strength thermal interface material designed to enhance thermal transfer from power device to heat-spreader or heat-sink. CB8133 has good melt-flow to form instand bond upon reaching high enough temperature with nominal placement pressure similar to paste adhesive. CB8133 is dry and handle well with automated excise-placement equipment. CB8133 may be slightly electrically conductive and is not recommended for electrical insulation applications. This material have been tested to satisfied UL-94V-O as interface material.

**TYPICAL PROPERTIES\***

Electrical Resistivity (150°C/60 minutes)	N/A	ohm-cm
Dielectric Strength (Volts/mil)	>550	
Glass Transition Temp.(°C)	-55	
Lap-Shear Strength	<600 psi	<4.1 N/mm <sup>2</sup>
Device Push-off Strength	>800 psi	>5.5 N/mm <sup>2</sup>
Hardness (Type)	<60 (A)	
Cured Density (gm/cc)	4.5	
Thermal Conductivity	>56 Btu-in/hr-ft <sup>2</sup> -°F	>8.0 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:**

CB8133 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 ) Keep product at room temperature for 15 minutes before using.
- ( 2 ) Cut or pre-cut to desired size and shape.
- ( 3 ) Place COOL-BOND between device and heatspreader or heat-sink.
- ( 4 ) If it is pre-applied onto heatsink, heatspreader or CPU, 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 from ship date

**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.

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 A.I. 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.