

# AI TECHNOLOGY INC

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**Low CTE** 

Low Moisture Absorption Low Ionic Impurities High Electrical Conductivity High Thermal Conductivity IDEAL FOR:

> Chip or component adhesive High temperature devices High power devices

### **DESCRIPTION:**

MC8880 is a one part, silver-filled cyanate ester adhesive that is electrically and thermally conductive. It is designed for use in both chip and component level attach application to reduce stress. It can withstand temperatures up to 300°C without thermal degradation. Its unique chemistry results in very low moisture absorption, high adhesive strength.

### **AVAILABILITY:**

MC8880 is available in syringes for automatic dispense applications.

### **APPLICATION PROCEDURES:**

- (1) Thaw to room temperature before opening container.
- (2) Dispense adhesive onto clean die or substrate.
- (3) Cure according to the recommended schedules.

NOTE: The monomer contained in this product is subject to crystallization even at room temperature. If product is thawed and remains crystallized, simply place in 40 °C environment for as long as needed to return product to the liquid state i.e. usually not more that 15 - 20 minutes.

## Die Attach MC8880

### **TYPICAL PROPERTIES\***

Electrical Resistivity <5x10<sup>-2</sup> ohm-cm

( 200 °C/ 1 hour Post )

Dielectric Strength (Volts/mil) >Not Applicable

Glass Transition Temp.(°C) 240 ±10%

Lap-Shear Strength >1000 psi

>6.9 N/mm<sup>2</sup>

Device Push-off Strength >2500 psi

>17.2 N/mm²

Hardness (Type) 80 (D) ±10%

Cured Density (gm/cc) 3.5 ±10%

Thermal Conductivity >62 Btu-in/hr-ft2-oF

>9.0 W/m-°C

Linear Thermal Expansion 23 ±15%

Coeff. (ppm/°C)

Maximum Continuous Operation Temp. (°C)<300

Avg. Viscosity(5.0 rpm, 25°C) 65,000 cp ±20%

(Brookfield DV-1,spindle CP51)

### **CURE SCHEDULES:**

<u>Temperature</u>	<u>Time</u>	<u>Pressure</u>
125°C	2hr	
150°C	45min	
175°C	10min	

Pot life is 5 days @ 25°C

### **SHELF LIFE:**

<u>Storage temperature</u> <u>Shelf Life</u> -40°C 1 yr

<u>CAUTION:</u> 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 Al 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.

PRODUCT DATA SHEET Ver 2.1 4/19/2018

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