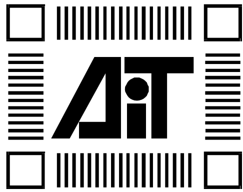

AI TECHNOLOGY INC
70 Washington Road
Princeton Jct., NJ 08550
(609) 799-9388 fax (609) 799-9308
E-Mail: ait@aitechnology.com
Internet: http://www.aitechnology.com

PRIMA-BOND
ME7156

Stress Free
Thermally Conductive
Reworkable
Epoxy Paste Adhesive

IDEAL FOR:
Substrate and Component Reworkability
Mismatched CTE's

DESCRIPTION:

ME7156 is a reworkable, alumina filled, electrically insulating and thermally conductive epoxy paste adhesive. It exhibits outstanding flexibility for bonding materials with highly mismatched CTE's (i.e., alumina to aluminum, silicon to copper). The high thermal conductivity of this material makes it useful for bonding large area die and components.

ME7156 can be readily reworked at 80-100ºC. Positive displacement dispensing equipment with ceramic auger is recommended.

AVAILABILITY:

ME7156 is available in syringes for automatic needle dispense applications or in jars. Both viscosity and thixotropic index can be modified to your specific needs.

APPLICATION PROCEDURES:

(1) Leave at ambient temperature until thawed before opening jar or dispensing syringe.

(2) Dispense adhesive onto clean substrate.

(3) Pre-bake the substrate with dispensed adhesive at 60ºC for 30 to 60 minutes to achieve optimum bonding. Pre-bake not needed in all applications**

(4) Cure according to one of the recommended schedules.

TYPICAL PROPERTIES*

Property	Value
Electrical Resistivity (150 ºC/ 60 min)	>1x10^{14} ohm-cm
Dielectric Strength (Volts/mil)	>750
Glass Transition Temp.(ºC)	-25 ±10%
Current Carrying Capabilities	N/A
Lap-Shear Strength	>1000 psi >6.9 N/mm²
Device Push-off Strength	>2400 psi >16.6 N/mm²
Hardness (Type)	80 (A) ±10%
Cured Density (gm/cc)	2.3 ±10%
Thermal Conductivity	12 Btu-in/hr-ft²-ºF ±10% 1.7 W/m-ºC ±10%
Linear Thermal Expansion Coeff. (ppm/ºC)	120 ±15%
Maximum Continuous Operation Temp. (ºC)	<150
Pot Life	
Avg. Viscosity(0.5 rpm, 24ºC) (Brookfield DV-1,spindle CP51)	144,000 cp ±20%
Thixotropic Index	

* 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.

CURE SCHEDULES:

Temperature	Time	Pressure
80ºC	8 hr	
100ºC	4 hr	
125ºC	2 hr	
150ºC	1 hr	

** For higher temperature curing, above 125 ºC and/or bonding area of over 1cmx1cm, it is recommended that the dispensed adhesive be pre-baked, open-faced without parts, at 60ºC for 30 minutes, before parts are mounted and cured.

SHELF LIFE:

Storage temperature	Shelf Life
-40ºC	1 yr
POT LIFE	72 hrs @ 25ºC

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 intended 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.