

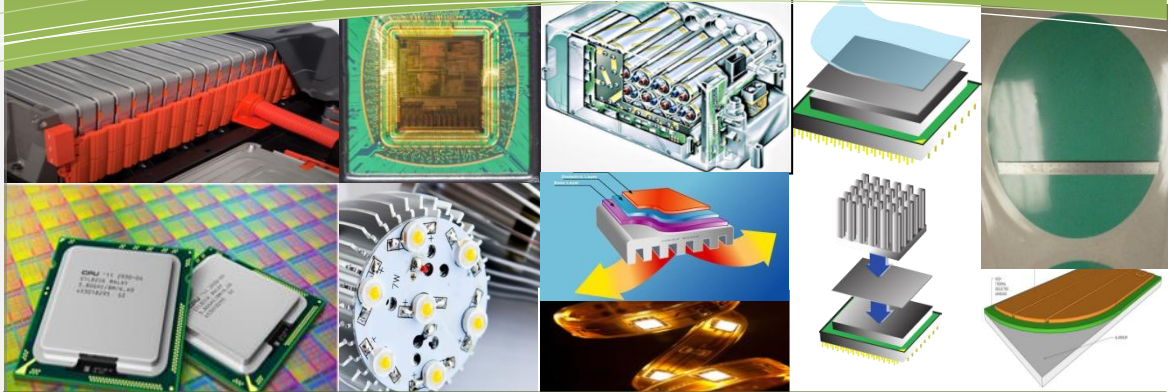
About AI Technology, Inc.

Since pioneering the use of flexible epoxy technology for microelectronic packaging in 1985, AI Technology has been one of the leading forces in development of advanced material and adhesive solutions for electronic interconnection and packaging for various industries.

The company has an ISO9001:2000 certified manufacturing and R&D facility on a 16-acre campus in Princeton Junction, NJ. AIT consists of a team of experienced and dedicated engineers, scientists and service staff to offer optimized material solutions with ultimate reliability.

**AI TECHNOLOGY, INC.** IS SPECIALIZED IN MANUFACTURING ADVANCED FLEXIBLE POLYMER BASED

ADHESIVES AND MATERIALS WITH DESIGNED ELECTRICAL, THERMAL & MECHANICAL PROPERTIES. SINCE 1985, SERVING ELECTRONICS, SEMICONDUCTOR, MILITARY, AERO-SPACE, MEDICAL AND AUTOMOTIVE INDUSTRY.



## AIT SOLUTIONS

### DIE-ATTACH ADHESIVES

#### Films

- ESP7660-HK 10um (Electrically Insulating but No Thermal)
- ESP7665-FP 20um (Thermally Conductive and Electrically Insulating)
- ESP8860-FP 20um (Electrically and Thermally Conductive)
- ESP8660-HK 20um and up (Electrically and Thermally Conductive)

#### Pastes

- ME8456 (Silver filled, electrically conductive, very high thermal conductivity)
- ME7158 (Aluminum nitride filled, electrically insulating, high thermal conductivity)
- ME7159 (Diamond filled, high electric strength, high thermal conductivity)

### THERMAL INTERFACE MATERIALS – (Silicone Free)

#### Electrically Conductive and/or Non-Conductive

- Thermal Greases/Electro Greases
- Thermal Gels
- Thermal Adhesive Tapes
- Compressible Phase-Change Pads
- Conformable Thermal Gap Fills
- Conductive Flexible Thermal Adhesives

### HIGH TEMPERATURE ADHESIVES – (up to 300C)

- High Temperature Film Adhesives
- High Temperature Paste Adhesives
- Electrically Conductive or Electrically Insulating,
- High Thermal Conductivity, High Temperature Tg

### TEMPORARY WAFER PROCESSING ADHESIVE

#### Liquid Wax for Spin Coating and Films

- (WPA-TS 330-L, WPA-TS-330-F)
- (WPA-TL-330-L, WPA-TL-330-F)
- (WPA-TS-320-L, WPA-TS-320-F)

### TAPES AND WAXES

- Wafer and Substrate Grinding Releasable Tapes
- Wafer and Substrate Grinding IPA Soluble Wax Films and Pastes
- UV and Thermal Release Dicing Tapes
- High Temperature Dicing Tapes
- Masking Tapes
- Transfer Tapes
- Thermoplastic PSA Tapes
- Insulating Tapes



**AI TECHNOLOGY, INC.** IS SPECIALIZED IN MANUFACTURING ADVANCED FLEXIBLE POLYMER BASED

ADHESIVES AND MATERIALS WITH DESIGNED ELECTRICAL, THERMAL & MECHANICAL PROPERTIES. SINCE 1985,  
SERVING ELECTRONICS, SEMICONDUCTOR, MILITARY, AERO-SPACE, MEDICAL AND AUTOMOTIVE INDUSTRY.

#### Key Solutions:

- **RTC8750**
- **RTK7556**
- **RTK7658**
- **RTK7659**
- **TP7208**
- **TP8090**
- **BGF7090**
- **BGL7080**
- **CB7078**
- **CB7208-EDA2**
- **CB8203-EDA**
- **CGL7018-MR**
- **CGR7016**
- **CGR7018**
- **CGR8010-XT**
- **COOL SILVER  
PAD**
- **COOL SILVER  
G4**
- **CP7178**
- **CP7508**
- **CP8503-HF**
- **CPR7158**
- **ELGR8501**

#### ADHESIVE PASTES

##### *Epoxy Based:*

- 1-Part Epoxy Pastes for Applications like: LED Die Attach, Opto Clad, Prima-Bond, Cool Bond, Etc.
- 2-Part Epoxy Pastes for Applications like: Potting, Printable Coating, Prima Solder, Cool Bond, Etc.
- Humidity Resistance Epoxy

##### *Cyanate Ester Based:*

- 1-Part Cyanate Ester Pastes for Applications like: Glob-Tops, High Temp Die Attach, Prima-Bond, Under-fills,

#### ADHESIVE FILMS

- Tack and Tack-Free Films
- Die Cut to Customer Specifications
- Dry Films for Applications like: High Insulation, Flexible Die Attach, Pre-Preg, Couplers, Etc.
- Flexible Soldering Adhesive Film with Defined Bond Line Thickness using Spacers
- High Temperature High Tg Adhesive for Power Electronics in Harsh Environments; Oil & Geothermal Wells and Down Hole Applications
- Temporary Bonding Adhesive Film (Skipping Spin-coating Step)
- Cyanate Ester based for Applications like: Flip Chip Under-fills, High Temp Film Adhesive, B-Staged Die Attach, Wafer Film Adhesive, Etc.

#### GLOB-TOP AND UNDERFILLS

- High Temperature Glob-Tops (High Thermal Conductivity)
- High Temperature Under-fills (High Thermal Conductivity)

#### SUBSTRATE AND COMPONENT ATTACH ADHESIVES

- Large Area Flexible and Stress Relief Films or Paste Adhesives (High Thermal Conductivity)
- High Temperature Substrate Attach Film and Paste Adhesives

#### COATINGS

- Conformal Electronic Circuit Board Protective Coatings
- UV Transparent, UV Protection, Salt Water-Fog; Water-Moisture Protection
- Anti-Static Coatings: UV and/or Moisture-Water Protection

#### ELECTROMAGNETIC SHIELDING AND ABSORBING MATERIALS

- Conductive and Semi-Conductive Caulks, Adhesive and Coatings
- EMI Blocking-Absorbing Materials

#### COUPLER™, PRE-PREGS & INSULATED METAL THERMAL SUBSTRATES

- Cyanate Ester based
- Dry Film based
- Tack Film based

#### PRINTABLE AND DISPENSIBLE PHASE CHANGE

- (LCPR7155-LB, LCPR7154, LCPR7158, LCPR8503)

#### SPECIALTY APPLICATIONS MATERIAL SOLUTIONS

- Z-Axis Anisotropic Conductive Film and Paste Adhesives
- Flip-Chip Conductive Bump Adhesives
- Lid-Sealing Film and Paste Adhesives
- Optical Transparent Adhesives and Coatings (Dry, UV-Cure, 2-Part Pastes or UV Cure Pastes)
- Solar Thermal Back sheet and UV Transparent Coatings
- Conductive Sheet Gaskets
- Antistatic Pads

#### NASA-ESA AND MIL-STD QUALIFIED MATERIALS

- Most AIT products will meet NASA outgassing requirement.



**AI TECHNOLOGY, INC.** IS SPECIALIZED IN MANUFACTURING ADVANCED FLEXIBLE POLYMER BASED

ADHESIVES AND MATERIALS WITH DESIGNED ELECTRICAL, THERMAL & MECHANICAL PROPERTIES. SINCE 1985,  
SERVING ELECTRONICS, SEMICONDUCTOR, MILITARY, AERO-SPACE, MEDICAL AND AUTOMOTIVE INDUSTRY.

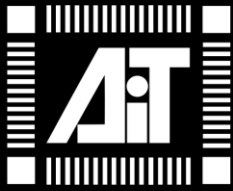
**QUALIFIED AIT PRODUCTS**  
MIL-STD 883, Method 5011.5

**Key Solutions:**

- ME7150
- ME7155
- ME7158
- ME7159
- ME7660
- ME8412
- ME8456
- ME8512
- MC7880
- MC7883
- MC7883-UF
- MC8880

<u>Adhesive Identifier</u>	<u>Material Type</u>	<u>Conductivity</u>
TC8750	Tacky Epoxy Film	Electrical-Thermal
TC8750-F6-B5	Tacky Epoxy Film	Electrical-Thermal
TK7755	Tacky Epoxy Film	Thermal Only
RTC8650 (2 <sup>nd</sup> Generation, expected to pass)	Ambient Storage tacky epoxy film	Electrical-Thermal
RTK7655 (2 <sup>nd</sup> Generation, expected to pass)	Ambient Storage tacky epoxy film	Thermal Only
ESP8350	Dry Epoxy Film	Electrical-Thermal
ESP8450 (2 <sup>nd</sup> Generation, expected to pass)	Ambient Storage dry epoxy film	Electrical-Thermal
ESP7455 (2 <sup>nd</sup> Generation, expected to pass)	Ambient Storage dry epoxy film	Thermal Only
ESP7459 (2 <sup>nd</sup> Generation, expected to pass)	Ambient Storage dry epoxy film	Thermal Only
TP8550	Dry Thermoplastic film	Electrical-Thermal
TP8650	Dry Thermoplastic film	Electrical-Thermal
TP8150 (2 <sup>nd</sup> Generation, expected to pass)	Dry Thermoplastic film	Electrical-Thermal
TP8090 (2 <sup>nd</sup> Generation, expected to pass)	Dry Thermoplastic film	Electrical-Thermal
TP7095 (2 <sup>nd</sup> Generation, expected to pass)	Dry Thermoplastic film	Thermal Only
TP7155 (2 <sup>nd</sup> Generation, expected to pass)	Dry Thermoplastic film	Thermal Only
ME8456	1-component flexible epoxy paste	Electrical-Thermal
ME8456-GE	1-component flexible epoxy paste	Electrical-Thermal
ME8456-00	1-component flexible epoxy paste	Electrical-Thermal
ME8412	1-component rigid epoxy paste	Electrical-Thermal
ME7155	1-component flexible epoxy paste	Thermal Only
ME7155-GS-004	1-component flexible epoxy paste	Thermal Only
ME7156	1-component flexible epoxy paste	Thermal Only
ME7156-NG	1-component flexible epoxy paste	Thermal Only
ME7159	1-component flexible epoxy paste	Thermal Only

Test Result 001 Mil-Std  
Rev. 04 10/24/2013



**AI TECHNOLOGY, INC.** IS SPECIALIZED IN MANUFACTURING ADVANCED FLEXIBLE POLYMER BASED

ADHESIVES AND MATERIALS WITH DESIGNED ELECTRICAL, THERMAL & MECHANICAL PROPERTIES. SINCE 1985,  
SERVING ELECTRONICS, SEMICONDUCTOR, MILITARY, AERO-SPACE, MEDICAL AND AUTOMOTIVE INDUSTRY.

**NASA-ESA OUTGASSING QUALIFIED AIT PRODUCTS**

Test Procedures: ESA: PSS-01-792; NASA: ASTM E595-90

Test Conditions: 125°C for 24 hours @10-3 Pa (<10-5 Torr)

Acceptability Total Weight Loss (TWL) <1.0%

Volatile Condensable Materials (VCM) <0.1%

Water Vapor Regained (WVR) NR

**Key Solutions:**

- TC8750
- TC8750-F6-B5
- TK7756
- TK7758
- TK7759
- CXP7660
- CXP8880
- ESP7355-MR
- ESP7450-HF
- ESP7456-HF
- ESP7660
- ESP7675
- ESP7679-LB
- ESP8450
- ESP8550-MR
- ESP8660
- ESP8680-HF
- LESP7675-HF
- LESP8660-HK
- HPCR080

<u>Adhesive Identifier</u>	<u>%TWL</u>	<u>%VCM</u>	<u>%WVR</u>
TC 8750 (Cured at 150°C @ 30 mins)	0.28	0.07	0.06
RTK 7658 (Cured at 125°C @ 3 hrs)	0.81	0.08	0.36 (NR)
RTK 7659 (Cured at 150°C @ 30 mins)	0.55	0.08	0.05
TP 7205 (Post bonding baked at 150°C @ 30 mins)	0.78	0.08	0.08
TP 7209 (none)	0.38	0.08	0.28
TP 7758 (Post bonding baked at 150°C @ 30 mins)	0.38	0.06	0.06
TP 7759 (Post bonding baked at 250°C @ 0.5 sec)	0.25	0.01	0.23
ESP 8350 (Cured at 150°C @ 16 hrs)	0.08	0.01	0.01
ME 7155 (Cured at 150°C @ 16 hrs)	0.54	0.067	Not Reported
ME 7158 (Cured at 150°C @ 16 hrs)	0.28	0.053	Not Reported
ME 7158 (Cured at 125°C @ 24 hrs)	0.3	0.045	Not Reported
ME 7158 (Cured at 100°C @ 4 hrs)	0.51	0.1	Not Reported
ME 7159 (Cured at 150°C @ 16 hrs)	0.23	0.031	Not Reported
ME 7159 (Cured at 150°C @ 24 hrs)	0.27	0.04	Not Reported
ME 7159 (Cured at 150°C @ 4 hrs)	0.58	0.09	Not Reported
ME 8456 (Cured at 100°C @ 5 hrs)	0.25	0.05	0.05
EG 8050 (Cured at 100°C @ 5 hrs)	0.57	0.016	0.21
EG 8050-HC (Cured at 150°C @ 5 mins)	0.84	0.07	0.64

Note: Most Adhesives made by AIT will pass NASA Requirements.

Call AIT technical assistance or customer service staff to arrange for a special need.

Test result 002  
Rev.03 10/29/2013