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TIA 806FG product is mostly used for bonding heat dissipation fins, microprocessors and other power consumption semiconductors. This type of adhesive tape possesses ultimate bonding strength with low thermal impedance, with which in effect can be able to replace the method of lubricating grease and mechanical fixing.

Feature

Thermal Conductivity 1.0W/mK
 High bond strength to a variety of surfaces
 Double sided pressure sensitive adhesive tape
 High performance, thermally conductive acrylic adhesive

Application

Mount heat sink onto BAG graphic processor or drive processor
 Mount heat spreader onto power converter PCB or onto motor control PCB
 High performance, thermally conductive acrylic adhesive
 Can be used instead of heat cure adhesive, screw mounting or clip mounting

Typical Properties	TIA™806FG	Test Method		
Color	White	Visual		
Adhesive Type	Acrylic Adhesive	*****		
Backing Type	Fiberglass	*****		
Continuous Use Temp	-45 °C to 120 °C	*****		
Thickness	0.006" 0.152mm	ASTM D374		
Thickness Tolerance	±0.001" ±0.025mm	ASTM D374		
Voltage Breakdown	> 3000 Vac	ASTM D149		
Tensile Strength	120psi	ASTM D412		
Thermal Impedance @50psi	0.59°C-in²/W	ASTM D5470		
Thermal Conductivity	1.0 W/mK	ASTM D5470		
Peel Adhesion	> 1000 g/inch (Steel, Immediate)	PSTC-1		
Peel Adhesion	> 1200 g/inch (Steel after 24 hrs)	PSTC-1		
Holding Power (25 °C/Hours)	> 48 Hours	PSTC-7		
Holding Power (80 °C/Hours)	> 48 Hours	PSTC-7		
Recommend Using Pressure	Pressure	Temperature	Time	*****
	10 psi (0.069 MPa)	25°C	20 sec	
	10 psi (0.069 MPa)	50 °C - 65 °C	5 sec	
Shelf Life	1 year when stored at room temperature		*****	

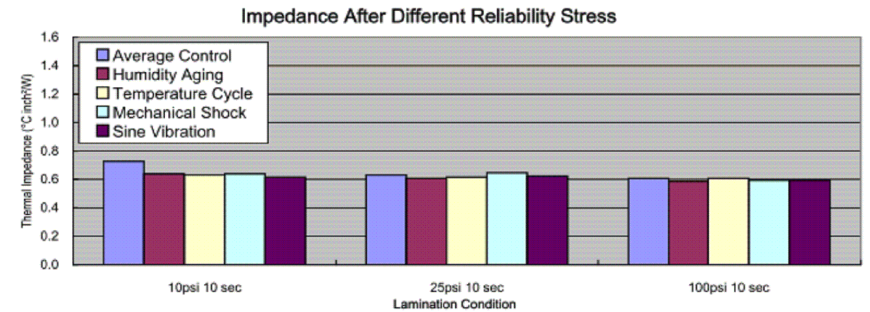
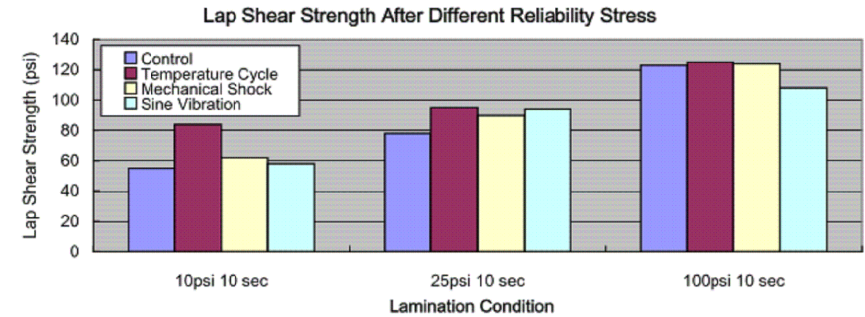
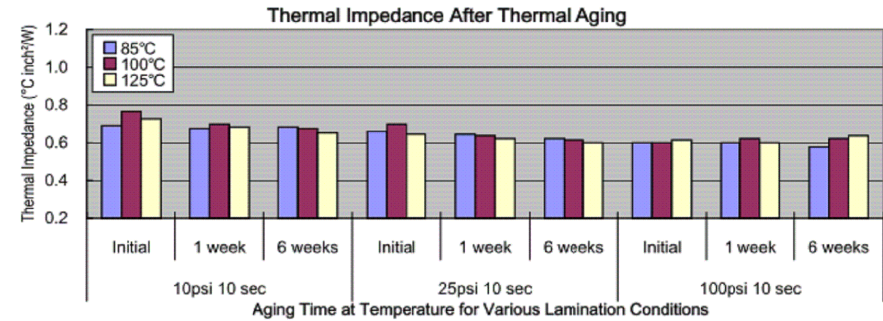
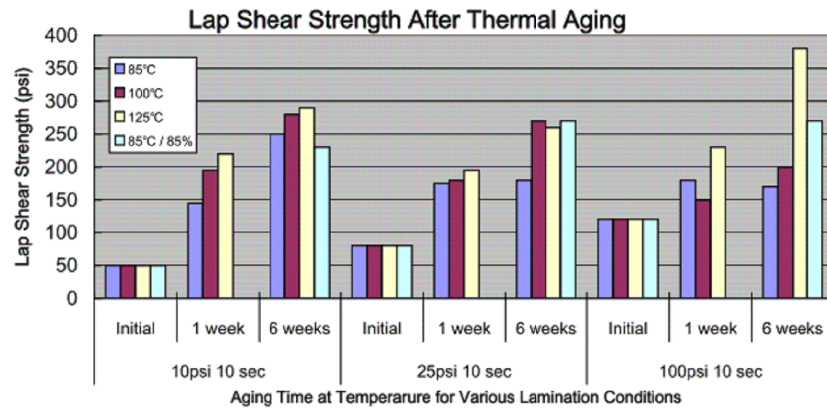
RoHS compliant
Unit: mm

Scale	Free	⑧	Update tolerance	29.05.2018	Segal		Date	Name	Customer-No.
⑧ TOLERANCE		⑦	Add IC size and power in notes	22.05.2018	Amy	Drawn	02.05.2013	Amy	ASSMANN WSW-No. V2136Nx-x
Less 10	±0.10	⑥	Change the foil on page 2/3	23.06.2016	Amy	Approved	29.05.2018	Amy	
10~30	±0.20	⑤	Add thermal resistance graph	19.02.2016	Amy				
31~50	±0.30	④	Add new version	25.01.2016	Amy	ASSMANN WSW components			Drawing-No.
51~100	±0.50	③	Update the solder pin	21.05.2015	Amy				ASSMANN WSW components
DIM	Tol	③	Update the solder pin	21.05.2015	Amy	ASSMANN WSW components			Replace
Angle	±1°	Id.	Modification	Date	Name				ASSMANN WSW components
						ASSMANN WSW components			Sheet
									ASSMANN WSW components


Thermal Cycling Reliability Test TIA806FG

The long term reliability of TIA806FG tape was evaluated. Lap shear strength and thermal impedance were measured after exposing to various aging environments. Lap shear samples were prepared by sandwiching TIA806FG tape between Al substrates with 1x1 inch² overlap. Thermal samples for reliability testing were also prepared by laminating the tape between Al substrates at various pressures. TIA806FG exhibits excellent stability and passes thermal and adhesion properties after various aging conditions.

- Thermal aging: 1000 hours at three different temperatures: 85°C, 100°C and 125°C
- Thermal/ humidity aging: 1000 hours at 85°C/85% relative humidity
- Thermal shock: temperature ramp from -40 to 125°C at a rate of 10°C/minute with 10 minute hold at peaks for 100 cycles
- Mechanical shock: 3 blows in 6 directions (total of 18) with 60G's force in half sine pulse
- Sine vibration: vibration between 10 to 2000Hz with 2grams to 12grams force on X and Y axis only



RoHS compliant
Unit: mm

Scale	Free	⑧	Update tolerance	29.05.2018	Segal		Date	Name	Customer-No.
⑧ TOLERANCE		⑦	Add IC size and power in notes	22.05.2018	Amy	Drawn	02.05.2013	Amy	ASSMANN WSW-No. V2136Nx-x
Less 10	±0.10	⑥	Change the foil on page 2/3	23.06.2016	Amy	Approved	29.05.2018	Amy	
10~30	±0.20	⑤	Add thermal resistance graph	19.02.2016	Amy				
31~50	±0.30	④	Add new version	25.01.2016	Amy				
51~100	±0.50	③	Update the solder pin	21.05.2015	Amy				Drawing-No.
DIM	Tol								ASS 2103 HS
Angle	±1°	Id.	Modification	Date	Name				rev08
									Replace