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ISO 9001 CERTIFIED

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118-06-F

B-STAGED ELECTRICALLY CONDUCTIVE TRANSFERABLE EPOXY DIE ATTACH ADHESIVE FILM

DESCRIPTION:

118-06-F is a B-staged, electrically conductive, transferable, epoxy adhesive film. The 118-06-F Series was developed with wafer manufacturing in mind. Some other applications for 118-06-F include, but are not limited to, conductive splicing of ribbon cables, PTF circuits, and electrical attachment of SMD devices, as well as the assembling electrical and electronic components. This system features excellent thermal stability and high temperature properties. This product has been formulated to have improved handling in the B-staged form. This product is available in thicknesses from 1 to 5 mils (see product codes below). 118-06-F is designed with the performance criteria of Mil-Std-883 5011.4 in mind and is expected to pass ASTM E-595 outgassing testing when fully and properly cured.

UNIQUE FEATURES

- Excellent Electrical Conductivity
- Excellent Chemical Resistance
- Easy Liner Release
- Low Ionics

IONIC CONTENT

Chloride	< 10ppm
Sodium	< 10ppm
Potassium	< 10ppm

(Typical properties are not intended to be used as specification limits)

GENERAL FILM DESCRIPTION

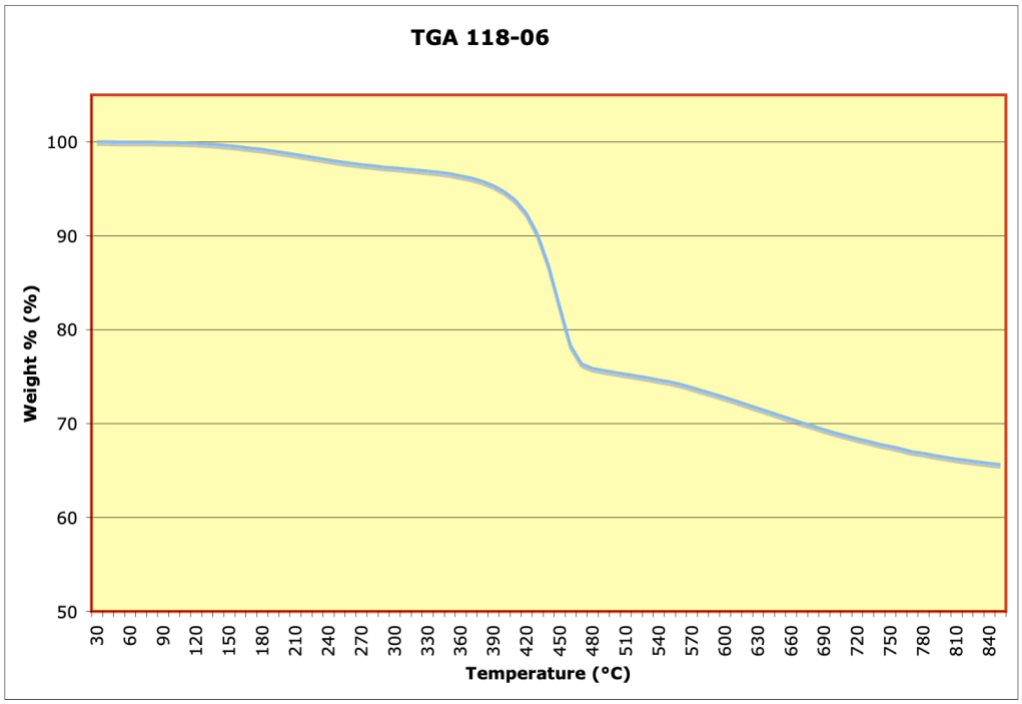
Substrate Type: PET Release Liner
Conductive Coating Type: Silver/Polymer

Product Code	Adhesive Thickness (mils)
118-06-F1	1
118-06-F2	2
118-06-F3	3
118-06-F4	4
118-06-F5	5

Other thicknesses are available upon request.

TYPICAL CURED PROPERTIES

Property	Value	Units
Operating Temperature	-55 to +230	°C
Peak Temperature	+325	°C
Volume Resistivity	0.0002	Ω - cm
Thermal Conductivity (*calculated*)	3.01	W/m-K
Glass Transition Temperature	100	°C
Coefficient of Thermal Expansion	50	ppm/°C
T-Shear Strength, min.	2,100	psi
Weight Loss @ 300°C, TGA	2.77	%
Differential Scanning Calorimetry (DSC) Peak Tc	168	°C
Δ Hc	-33.4	J/g



CURING GUIDELINES

Temperature (°C)	Time (min.)
150	60
175	30
200	15

These temperatures and times are presented as a guide only. The end-user is encouraged to experiment to determine optimum curing schedule.

HANDLING AND STORAGE

This product is shipped frozen and should be stored frozen to optimize shelf life. **Care should be taken in handling frozen/cold sheets, they are more likely to crack at this point (avoid flexing film if stored at -40°C). Allow material to warm to room temperature before handling.** Please refer to Applying/Transfer Procedure for more details. For additional instructions see the B-Stage Guidelines available on our website.

SHELF LIFE

3 months at -20°C.

APPLYING/TRANSFER PROCEDURE

To ensure a good bond, the bonding surfaces should be free of any contaminants such as oils, greases, fingerprints, etc.

1. Remove the film from cold storage and allow it to warm to room temperature.
2. After the film has been warmed to room temperature, remove release liner from one side.
3. Preheat substrate to 50°C to 70°C.
4. Locate the adhesive onto the preheated substrate. Smooth out any trapped air by hand, with a roller or any other smoothing device. Some pressure is advisable to ensure intimate contact between the adhesive and substrate.
5. Allow the substrate to cool to room temperature (cooler is better) and remove release liner. This is very important to allow for easy and clean separation of the final release liner from the adhesive.
6. Place the two substrates to be bonded together under uniform pressure. It is advisable to preheat the devise(s) being used to apply pressure. An unheated device will result in longer cure times and less uniformity of cure.
7. Cure at the desired cure schedule. Refer to the cure schedules above for guide information.

All technical information is based on data obtained by CMI personnel and is believed to be reliable. No warranty is either expressed or implied with respect to results or possible infringements on patents.

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