



# ST110G

(No ANSI) Halogen Free, High Thermal Conductivity Multilayer PCB Used

## FEATURES

- 1.0 W/(m•K) thermal conductivity
- High voltage & Anti-CAF capability
- Excellent thermal and insulation reliability
- Lower Z-axis CTE
- RTI 160°C (≥0.2mm min. build-up thickness)

## APPLICATIONS

- PCB heat dissipation solution
- DC/DC converter and other power supply
- Automotive electronics, etc.

## GENERAL PROPERTIES

Test Items	Test Method	Test Condition	Unit	Typical Value
Thermal Conductivity	ASTM D5470	A	W/(m•K)	1.0
Tg	IPC-TM-650 2.4.24.4	DMA	°C	175
Td	IPC-TM-650 2.4.24.6	TGA (5% Wt. Loss)	°C	400
T288	IPC-TM-650 2.4.24.1	TMA	min	60
Thermal Stress	IPC-TM-650 2.4.13.1	288°C, solder dipping	s	300
CTE (Z-axis)	IPC-TM-650 2.4.24	Before Tg	ppm/°C	27
	IPC-TM-650 2.4.24	After Tg	ppm/°C	176
	IPC-TM-650 2.4.24	50-260°C	%	1.8
Dielectric Constant (1GHz)	IPC-TM-650 2.5.5.9	C-24/23/50	-	4.13
Dissipation Factor (1GHz)	IPC-TM-650 2.5.5.9	C-24/23/50	-	0.0099
Volume Resistivity	IPC-TM-650 2.5.17.1	C-96/35/90	MΩ-cm	1.4×10 <sup>9</sup>
Surface Resistivity	IPC-TM-650 2.5.17.1	C-96/35/90	MΩ	1.5×10 <sup>7</sup>
Arc Resistance	IPC-TM-650 2.5.1	D-48/50+D-0.5/23	s	175
Dielectric Breakdown	IPC-TM-650 2.5.6	D-48/50+D-0.5/23	kV	>45
Peel Strength (10z HTE)	IPC-TM-650 2.4.8	288°C/10s	N/mm	1.15
Water Absorption	IPC-TM-650 2.6.2.1	E-1/105+D-24/23	%	0.10
Flammability	UL94	C-48/23/505	Rating	V-0

Remarks:

1. All the typical value is based on the 0.5mm specimen (5x106). The Value of water absorption and CTE (Z-axis) is based on 2.0mm (15x2116) coupons.

2. All the typical values listed above are for your reference only and not intended for specification. Please contact Shengyi Technology Co., Ltd. for detailed information. All rights from this data sheet are reserved by Shengyi Technology Co., Ltd.

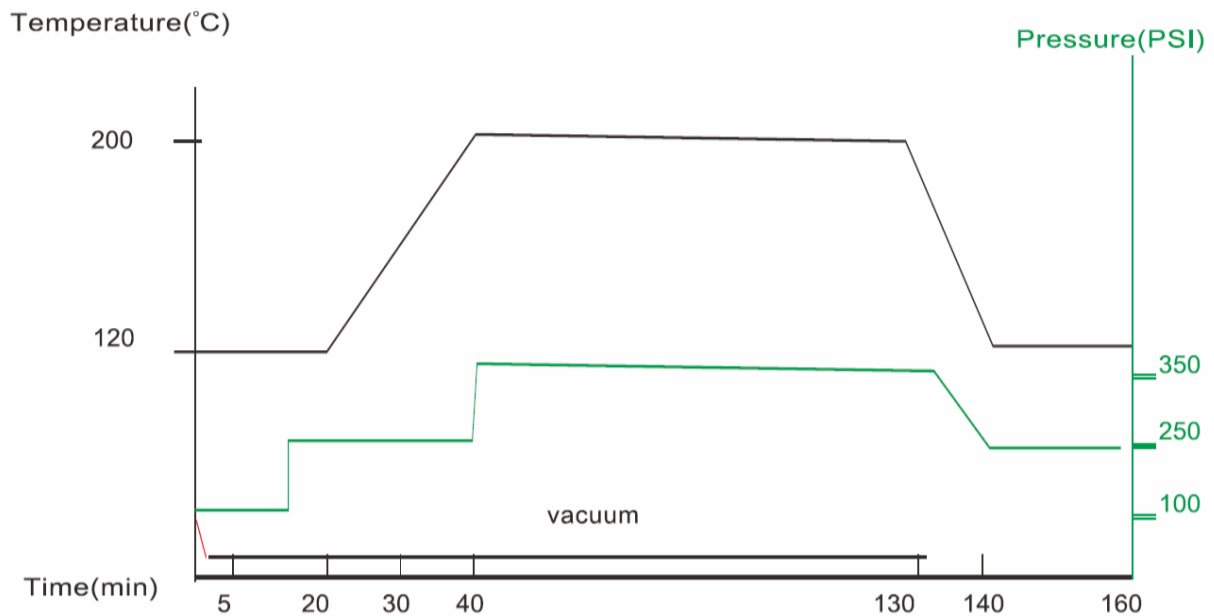
Explanation: C=Humidity conditioning, D=Immersion conditioning in distilled water, E=Temperature conditioning. The first digit following the letter indicates the duration of preconditioning in hours, the second digit the preconditioning temperature in °C and the third digit the relative humidity.



# ST110G PREPREG

## Bonding Prepreg for ST110G

### HOT PRESSING CYCLE



- Heat up rate: 2.5-4.0°C/min (80-140°C).
- Curing time: >90min (190°C~205°C).
- The hot-pressing parameter is for your reference only, please turn to Shengyi Technology Co., Ltd for detailed information.

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### STORAGE CONDITION

- 3 months when stored at < 23°C and < 50% RH.
- 6 months when stored at < 5°C. Normalize in room temperature for at least 4h before using.
- Beware of moisture, always keep wrapped in damp-proof material. Keeping in normal condition, prepreg might absorb moisture and its bonding strength would be weakened.
- Avoid UV-rays and strong light.