



# ST115D

(UL ANSI: FR-4.0) High Thermal Conductivity CCL

## FEATURES

- High CTI
- Low Z-axis CTE.
- Excellent heat dissipation
- Excellent thermal and insulation reliability

## APPLICATIONS

PCB heat dissipation solution  
Automotive electronics  
DC/DC converter and etc.

## GENERAL PROPERTIES

Test Items	Test Method	Test Condition	Unit	Typical Value
Thermal Conductivity	ASTM D5470	A	W/(m·K)	1.5
	ASTM E1461			1.8
Tg	IPC-TM-650 2.4.24.4	DMA	°C	150
Td	IPC-TM-650 2.4.24.6	TGA (5% W.L)	°C	355
T288	IPC-TM-650 2.4.24.1	TMA	min	30
Thermal Stress	IPC-TM-650 2.4.13.1	288°C, solder dip	min	>30
CTE (Z-axis)	IPC-TM-650 2.4.24	Before Tg	ppm/°C	26
	IPC-TM-650 2.4.24	After Tg	ppm/°C	182
	IPC-TM-650 2.4.24	50-260°C	%	2.1
Permittivity (1GHz)	IPC-TM-650 2.5.5.9	C-24/23/50	-	5.4
Loss Tangent (1GHz)	IPC-TM-650 2.5.5.9	C-24/23/50	-	0.0152
Volume Resistivity	IPC-TM-650 2.5.17.1	C-96/35/90	MΩ·cm	7.0×10 <sup>7</sup>
Surface Resistivity	IPC-TM-650 2.5.17.1	C-96/35/90	MΩ	1.4×10 <sup>7</sup>
Arc Resistance	IPC-TM-650 2.5.1	D-48/50+D-0.5/23	s	151
Dielectric Breakdown	IPC-TM-650 2.5.6	D-48/50+D-0.5/23	KV	45
Peel Strength (1oz)	IPC-TM-650 2.4.8	288°C/10s	N/mm [lb/in]	1.05 [6.00]
Flexural Strength (LW/CW)	IPC-TM-650 2.4.4	A	Mpa	430/358
Water Absorption	IPC-TM-650 2.6.2.1	E-1/105+D-24/23	%	0.11
Flammability	UL94	C-48/23/505	Rating	V-0
CTI	IEC60112	A	Rating	PLC 0

Remarks: 1. All the typical value is based on the 1.0mm specimen.

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.



# ST115DB PREPREG

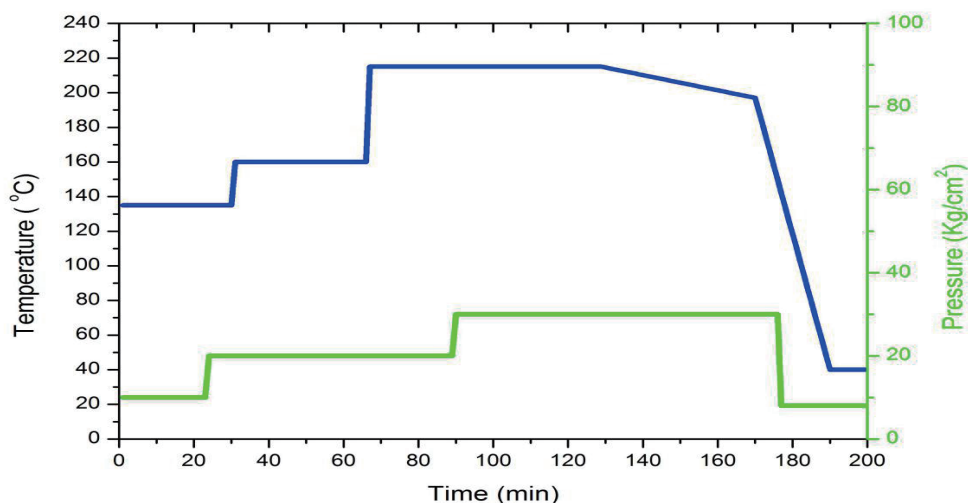
(UL ANSI: FR-4.0) Thermal Conductive Prepreg

## PREPREG PARAMETERS

Glass fabric type	Resin content (%)	Cured thickness (mm)	Standard size (Roll type)
1080	85	0.135	1.260m×150m
106	89	0.095	
	90	0.105	
	91	0.115	
1027	90	0.080	1.260m×250m

Other prepreg type, resin content and size could be available upon request, 1080 specification is not recommended for  $\geq 3oz$  copper filler, please turn to Shengyi Technology Co., Ltd. for detailed information.

## HOT PRESSING CYCLE



- Heat up rate: 2.5-3.5°C/min (80-140°C).
- Curing time: >90min (>190°C).
- The hot pressing parameter is for your reference only, please turn to Shengyi Technology Co., Ltd for detailed information.

## STORAGE CONDITION

- 3 months when stored at  $< 23^{\circ}\text{C}$  and  $< 50\%$  RH.
- 6 months when stored at  $< 5^{\circ}\text{C}$ . Normalize in room temperature for at least 4h before using.
- Beware of moisture always keep wrapped in damp-proof material. Were kept in normal condition, prepreg might absorb moisture and its bonding strength would be weakened.