S1150G

(UL ANSI: FR-4.1) Halogen-free, Mid-Tg

FEATURES

- Anti-CAF capability
- Lead-free compatible
- Excellent mechanical process ability
- Halogen, antimony and red phosphorous free

APPLICATIONS

Tablet, NB, LED
Smartphone
Game machine
Automotive electronics
Communication equipment

GENERAL PROPERTIES

Test Items	Test Method	Test Condition	Unit	Typical Value
Tg	IPC-TM-650 2.4.25D	DSC	℃	155
Td	IPC-TM-650 2.4.24.6	TGA (5% W.L)	℃	355
T288	IPC-TM-650 2.4.24.1	TMA	min	>60
T260	IPC-TM-650 2.4.24.1	TMA	min	>60
Thermal Stress	IPC-TM-650 2.4.13.1	288℃, solder dip	s	>100
CTE (Z-axis)	IPC-TM-650 2.4.24	Before Tg	ppm/℃	40
	IPC-TM-650 2.4.24	After Tg	ppm/℃	230
	IPC-TM-650 2.4.24	50-260℃	%	2.8
Permittivity (1GHz)	IPC-TM-650 2.5.5.9	C-24/23/50	-	4.5
Loss Tangent (1GHz)	IPC-TM-650 2.5.5.9	C-24/23/50	-	0.011
Volume Resistivity	IPC-TM-650 2.5.17.1	C-96/35/90	MΩ-cm	1.15×10^{8}
Surface Resistivity	IPC-TM-650 2.5.17.1	C-96/35/90	MΩ	9.61×10^{6}
Arc Resistance	IPC-TM-650 2.5.1	D-48/50+D-0.5/23	s	178
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℃/10s	N/mm [lb/in]	1.5 [8.57]
Flexural Strength (LW/CW)	IPC-TM-650 2.4.4	A	Mpa	630/480
Water Absorption	IPC-TM-650 2.6.2.1	D-24/23	%	0.10
Flammability	UL94	C-48/23/50	Rating	V-0
Halogen Content — Br	EN 14582	A	ppm	≤900
Halogen Content — Cl				≤900
Halogen Content — Br+Cl				≤1500
CTI	IEC 60112	A	Grade	PLC 1*

Remarks: 1. Specification sheet: IPC-4101/128, is for your reference only.

2. All the typical value is based on the 1.6mm (8*7628) specimen.

3. * Thickness≥1.4mm with 7628 can meet PLC 1. If you need to use a CCL of thickness <1.4mm or PP thinner than 7628 for application of high CTI requirements, please consult Shengyi customer service engineer in advance.

4. All the typical value listed above is for your reference only, please turn to Shengyi Technology Co., Ltd for detailed information, and all rights from this data sheet are reserved by Shengyi Technology Co., Ltd.

S1150GB PREPREG

(UL ANSI: FR-4.1) Bonding Prepreg for S1150G

PREPREG PARAMETERS

Glass fabric type	Resin content (%)	Cured thickness (mm)	Standard size (Roll type)
106	73	0.053	1.260m×150m
	75	0.059	
1037	73	0.051	
	75	0.056	
1080/1078	63	0.074	1.260m×300m
	66	0.083	
	68	0.088	
2313	55	0.099	
	57	0.105	
2116	54	0.124	1.260m×250m
	57	0.134	
1506	45	0.156	1.260m×150m
	48	0.168	
7628	43	0.190	
	45	0.199	
	48	0.214	
	50	0.225	

Other type, resin content and size could be available upon request.

HOT PRESSING CYCLE

- The heat-up rate depends on the inner copper or the structure of multilayer PCB.
- Curing time: >45min (180~190℃).
- If you need any more detail information, please turn to Shengyi Technology Co., Ltd.

STORAGE CONDITION

- 3 months when stored at < 23℃ and <50% RH.
- 6 months when stored at <5℃. 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.

PURCHASING INFORMATION

Thickness	Copper foil	Standard size
0.05mm to 3.2mm	12um to 105 um	1,020mm ×1,220mm(40”×48”) 915mm ×1,220mm(36”×48”) 1,070mm ×1,220mm(42”×48”)

Remarks: Other sheet size and thickness could be available upon request.