



S1170G

(UL ANSI: FR-15.1) High Tg, Halogen-free

FEATURES

- Anti-CAF capability
- Lead-free compatible
- Excellent through-hole reliability
- Halogen, antimony and red phosphorous free

APPLICATIONS

Computer
Instrument
Smartphone
Consumer electronics
Automotive electronics

GENERAL PROPERTIES

Test Items	Test Method	Test Condition	Unit	Typical Value	
Tg	IPC-TM-650 2.4.25D	DSC	°C	175	
	IPC-TM-650 2.4.24.4	DMA	°C	180	
Td	IPC-TM-650 2.4.24.6	TGA (5% W.L)	°C	390	
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 °C, solder dip	s	>100	
CTE (Z-axis)	IPC-TM-650 2.4.24	Before Tg	ppm/°C	45	
	IPC-TM-650 2.4.24	After Tg	ppm/°C	210	
	IPC-TM-650 2.4.24	50-260°C	%	2.3	
Permittivity (1GHz)	IPC-TM-650 2.5.5.9	C-24/23/50	-	4.4	
Loss Tangent (1GHz)	IPC-TM-650 2.5.5.9	C-24/23/50	-	0.010	
Volume Resistivity	IPC-TM-650 2.5.17.1	C-96/35/90	MΩ-cm	5.65×10 ⁷	
Surface Resistivity	IPC-TM-650 2.5.17.1	C-96/35/90	MΩ	5.99×10 ⁶	
Arc Resistance	IPC-TM-650 2.5.1	D-48/50+D-0.5/23	s	180	
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]	1.3 [7.43]	
Flexural Strength (LW/CW)	IPC-TM-650 2.4.4	A	Mpa	550/450	
Water Absorption	IPC-TM-650 2.6.2.1	D-24/23	%	0.12	
Flammability	UL94	C-48/23/50	Rating	V-0	
Halogen Content	EN 14582	A	ppm	Br	≤900
				Cl	≤900
				Br+Cl	≤1500

- Remarks:
1. Specification sheet: IPC-4101/130, is for your reference only.
 2. All the typical value is based on the 1.6mm (8*7628) specimen.
 3. 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.



S1170GB PREPREG

(UL ANSI: FR-15.1) Bonding Prepreg For S1170G

PREPREG PARAMETERS

Glass fabric type	Resin content (%)	Cured thickness (mm)	Standard size (Roll type)
106/1037	72	0.050	1.260m×150m
	76	0.060	
1080/1078	64	0.075	1.260m×300m
	68	0.087	
2313	55	0.097	
	59	0.109	
2116	52	0.115	1.260m×250m
	55	0.125	
1506	45	0.155	1.260m×150m
	48	0.167	
7628	43	0.189	
	46	0.204	
	48	0.214	
	50	0.223	

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: >60min (190~200 °C).
- If you need any more detail information, please turn to Shengyi Technology Co., Ltd.

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.

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.