S1190

(UL ANSI: FR-4.0) Extremely High Performance Material

FEATURES

- Anti-CAF capability
- Excellent thermal reliability
- Excellent through-hole reliability

APPLICATIONS

Special for inner heavy copper or over 24L multilayer boards

GENERAL PROPERTIES

Test Items	Test Method	Test Condition	Unit	Typical Value
Tg	IPC-TM-650 2.4.24	TMA	℃	170
	IPC-TM-650 2.4.24.4	DMA	℃	200
Td	IPC-TM-650 2.4.24.6	TGA (5% W.L)	℃	350
T288	IPC-TM-650 2.4.24.1	TMA	min	45
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/℃	45
	IPC-TM-650 2.4.24	After Tg	ppm/℃	210
	IPC-TM-650 2.4.24	50-260℃	%	2.3
Permittivity (1GHz)	IPC-TM-650 2.5.5.9	C-24/23/50	-	4.6
Loss Tangent (1GHz)	IPC-TM-650 2.5.5.9	C-24/23/50	-	0.015
Volume Resistivity	IPC-TM-650 2.5.17.1	C-96/35/90	MΩ-cm	2.5×10^{8}
Surface Resistivity	IPC-TM-650 2.5.17.1	C-96/35/90	MΩ	3.3×10^{7}
Arc Resistance	IPC-TM-650 2.5.1	D-48/50+D-0.5/23	s	146
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]	1.25 [7.14]
Flexural Strength (LW/CW)	IPC-TM-650 2.4.4	A	Mpa	530/410
Water Absorption	IPC-TM-650 2.6.2.1	D-24/23	%	0.07
Flammability	UL94	C-48/23/50	Rating	V-0
CTI	IEC 60112	A	Rating	PLC3

Remarks: 1. Specification sheet: IPC-4101/126, is for your reference only.

2. All the typical value is based on the 1.6mm (16*2116) 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.

S1190B PREPREG

(UL ANSI: FR-4.0) Bonding Prepreg For S1190

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	0.086	
2313	56	0.100	
2116	50	0.110	1.260m×250m
	56	0.125	

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: >90min (190~200℃).
- 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 0.20mm	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.