



# S1141

(UL ANSI: FR-4.0) Conventional FR-4

## FEATURES

- DICY cured
- UV Blocking/AOI Compatible
- Excellent mechanical process ability

## APPLICATIONS

Computer, Instrumentation, VCR, Communication equipment, electronics, Game machine, automotive electronics, Aviation, and etc.

Not suggested for >2oz copper, HDI, and  $\geq 12L$  application.

For applications with CAF requirements, recommend customer to carry a systematic assessment of its reliability.

## GENERAL PROPERTIES

Test Items	Test Method	Test Condition	Unit	Typical Value
Tg	IPC-TM-650 2.4.25D	DSC	°C	140
Td	IPC-TM-650 2.4.24.6	TGA (5% W.L)	°C	310
T288	IPC-TM-650 2.4.24.1	TMA	min	2
T260	IPC-TM-650 2.4.24.1	TMA	min	15
Thermal Stress	IPC-TM-650 2.4.13.1	288°C, solder dip	s	>60
CTE (Z-axis)	IPC-TM-650 2.4.24	Before Tg	ppm/°C	65
	IPC-TM-650 2.4.24	After Tg	ppm/°C	300
	IPC-TM-650 2.4.24	50-260°C	%	4.5
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	-	0.013
Volume Resistivity	IPC-TM-650 2.5.17.1	C-96/35/90	MΩ-cm	5.2×10 <sup>8</sup>
Surface Resistivity	IPC-TM-650 2.5.17.1	C-96/35/90	MΩ	5.4×10 <sup>7</sup>
Arc Resistance	IPC-TM-650 2.5.1	D-48/50+D-0.5/23	s	120
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]	1.8 [10.28]
Flexural Strength (LW/CW)	IPC-TM-650 2.4.4	A	MPa	600/500
Water Absorption	IPC-TM-650 2.6.2.1	D-24/23	%	0.15
Flammability	UL94	C-48/23/50	Rating	V-0
CTI	IEC60112	A	Rating	PLC 3

- Remarks:
1. Specification sheet: IPC-4101/21, 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.



# S0401 PREPREG

(UL ANSI: FR-4.0) Bonding Prepreg For S1141

## PREPREG PARAMETERS

Type	Resin content (%)	Cured thickness (mm)	Standard size (Roll type)
106/1037	71	0.050	1.260m×150m
	74	0.057	
	76	0.062	
1080/1078	64	0.078	1.260m×300m
	68	0.090	
2313/3313	55	0.100	
2116	52	0.120	
	55	0.129	
	58	0.140	
1506	42	0.148	1.260m×150m
	45	0.160	
7628	43	0.195	1.260m×150m
	45	0.205	
	48	0.220	
	50	0.230	

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: >30min (170~180°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 70 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.