

# S1141

(UL ANSI:FR-4)UV Blocking

## 特点

- Tg140℃ (DSC)。
- UV Blocking/AOI兼容。
- 优良的机械加工性能。

## FEATURES

- Tg140℃ (DSC).
- UV Blocking/AOI Compatible.
- Excellent mechanical processability.

## 应用领域

电脑、仪器仪表、摄像机、通讯设备、电子游戏机、汽车、航空等。  
不适用于有CAF要求的应用。

## APPLICATIONS

Computer, Instrumentation, VCR, communication equipment, electronic game machine, automotive electronics, aviation, and etc.  
Not suitable for Anti-CAF application.

## GENERAL PROPERTIES

Test Item	Treatment Condition	Unit	Property Data	
			SPEC	Typical Value
Tg	DSC	℃	≥130	140
Flammability	C-48/23/50	-	V-0	V-0
	E-24/125			
Volume Resistivity	After moisture resistance	MΩ-cm	≥10 <sup>6</sup>	5.2×10 <sup>8</sup>
	E-24/125		≥10 <sup>3</sup>	5.2×10 <sup>6</sup>
Surface Resistivity	After moisture resistance	MΩ	≥10 <sup>4</sup>	5.4×10 <sup>7</sup>
	E-24/125		≥10 <sup>3</sup>	5.6×10 <sup>6</sup>
Arc Resistance	D-48/50+D-0.5/23	S	≥60	120
Dielectric Breakdown	D-48/50+D-0.5/23	KV	≥40	60
Dielectric Constant (1MHz)	C-24/23/50	-	≤5.4	4.6
Dissipation Factor (1MHz)	C-24/23/50	-	≤0.035	0.015
Thermal Stress	Unetched Etched	288℃, solder dip	>10s	60s
			No delamination	No delamination
Peel Strength	1oz Cu. Foil	N/mm	≥1.05	1.8
			≥0.70	1.6
Flexural Strength	LW	MPa	≥415	600
	CW		≥345	500
Water Absorption	D-24/23	%	≤0.80	0.15
CTE Z-axis	Before Tg	TMA	μm/m℃	65
	After Tg	TMA	μm/m℃	300
	50~260℃	TMA	%	4.5
Td	10℃/min, N <sub>2</sub> , 5% Wt Loss	℃	-	310
T260	TMA	min	-	15
T288	TMA	min	-	2
CTI	IEC60112 Method	V	PLC 3(175V--249V)	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 specimen, while the Tg is for specimen ≥0.50mm.  
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.

Explanations: C = Humidity conditioning; D = Immersion conditioning in distilled water; E = Temperature conditioning.

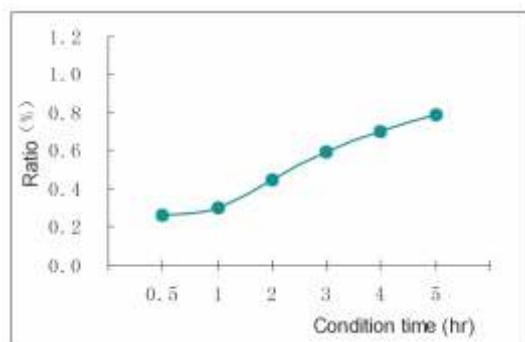
The figures following the letter symbols indicate with the first digit the duration of the preconditioning in hours, with the second digit the preconditioning temperature in ℃ and with the third digit the relative humidity.



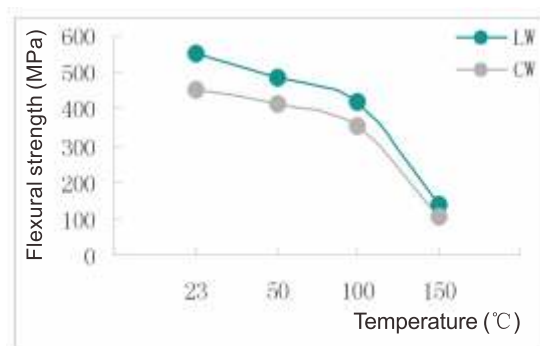
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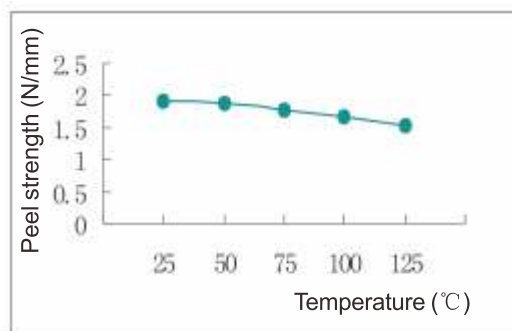
## Water absorption at pressure cooker



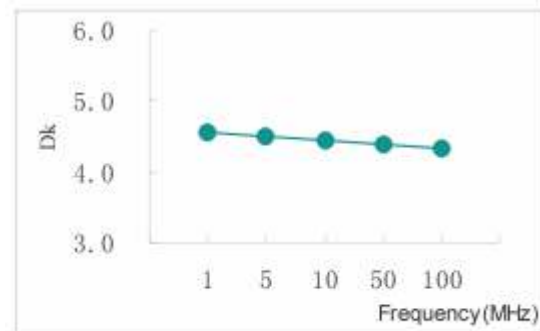
## Flexural strength



## Peel strength



## Dielectric constant



## PURCHASING INFORMATION

Thickness	Copper foil	Standard Size	
0.05mm to 3.2mm	12 μ m	1,020×1,220mm (40" × 48" )	915×1,220mm (36" × 48" )
	to 105 μ m	1,070×1,220mm (42" × 48" )	

- ✘ Other sheet size and thickness could be available upon request.
- ✘ UL认可单、双面PCB板，最小厚度0.38mm。



# S0401 PREPREG

(UL ANSI:FR-4) Bonding Prepreg For S1141

## 特点

- Tg140℃ (DSC)。
- UV Blocking/AOI兼容。
- 优良的粘结性能，作业窗口宽。

## FEATURES

- Tg140℃ (DSC) .
- UV Blocking/AOI Compatible.
- Excellent bonding strength ,wide operating window.

## PREPREG PARAMETERS

Glass fabric type	Resin content(%)	Cured thickness(mm)	DK(1GHz)	Df(1GHz)	Standard size (Roll type)
106/1037	71	0.050	3.5	0.028	1.260m X150m
	74	0.060	3.4	0.029	
	76	0.065	3.4	0.029	
1080/1078	64	0.075	3.7	0.024	1.260m X300m
	68	0.090	3.6	0.027	
2313	55	0.103	3.9	0.020	
2116	50	0.114	4.0	0.018	1.260m X250m
	52	0.120	4.0	0.019	
	55	0.129	3.9	0.020	
	58	0.140	3.8	0.022	
1506	42	0.150	4.2	0.014	1.260m X150m
	45	0.160	4.1	0.015	
	48	0.175	4.0	0.017	
7628	43	0.200	4.2	0.014	
	45	0.205	4.1	0.015	
	48	0.220	4.0	0.017	
	50	0.230	4.0	0.018	

Remark: DK and Df are tested according to IPC TM-650 2.5.5.9

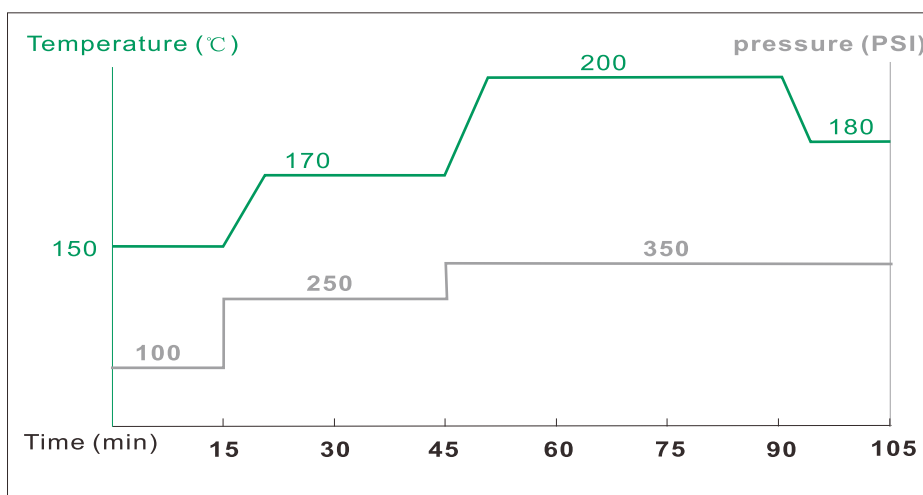
Prepreg type, resin content and size could be available upon request.



# S0401 PREPREG

(UL ANSI:FR-4) Bonding Prepreg For S1141

## HOT PRESSING CYCLE



Heat-up rate: 1.0~2.5°C/min(80~140°C)

Curing time: >30min(170~180°C)

The hot pressing parameters is for your reference only, please turn to Shengyi Technology Co., Ltd for detailed information.

## PREPREG STORAGE

### STORAGE CONDITION

- Three months when stored at <23 °C and <50% RH .
- Six 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. Were kept in normal condition, prepreg might absorb moisture and its bonding strength would be weakened.
- Avoid UV-rays and strong light.