



S1141 150

(UL ANSI:FR-4.0)Mid-Tg/UV Blocking

FEATURES

- Tg 150°C(DSC).
- UV Blocking/AOI compatible.
- Good PCB mechanical processability.

APPLICATIONS

Computer, instrumentation, VCR, communication equipment, electronic toy, automotive, and etc.
Not suitable for Anti-CAF application.

GENERAL PROPERTIES

Test Item	Treatment Condition	Unit	Property Data		
			SPEC	Typical Value	
Tg	DSC	°C	≥ 145	150	
Flammability	C-48/23/50	-	V-0	V-0	
	E-24/125+des				
Volume Resistivity	After moisture resistance	MΩ-cm	≥ 10 ⁶	4.7×10 ⁸	
	E-24/125		≥ 10 ³	5.3×10 ⁶	
Surface Resistivity	After moisture resistance	MΩ	≥ 10 ⁴	5.3×10 ⁷	
	E-24/125		≥ 10 ³	5.4×10 ⁶	
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	288°C, solder dip	> 10s	60s	
	Etched		No delamination	No delamination	
Peel Strength	1oz	288°C, 10s	≥ 1.05	1.8	
	Cu. Foil	125°C	≥ 0.70	1.6	
Flexural Strength	LW	A	≥ 415	600	
	CW		≥ 345	500	
Water Absorption	D-24/23	%	≤ 0.8	0.15	
CTE Z-axis	Before Tg	TMA	μ m/m°C	-	65
	After Tg	TMA	μ m/m°C	-	300
	50~260°C	TMA	%	-	4.2
Td	10°C/min, N ₂ , 5% Wt Loss	°C	-	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.

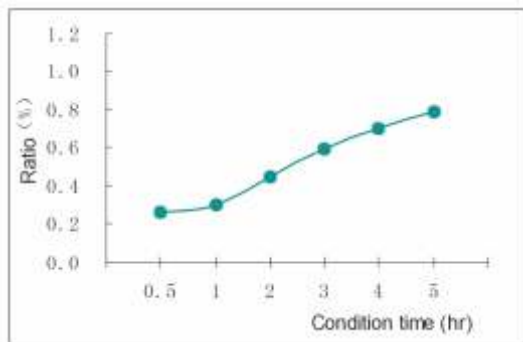
The figures following the letter symbols indicate with the first digit the duration of the preconditioning in hours, with the second digit the preconditioning temperature in °C and with the third digit the relative humidity.



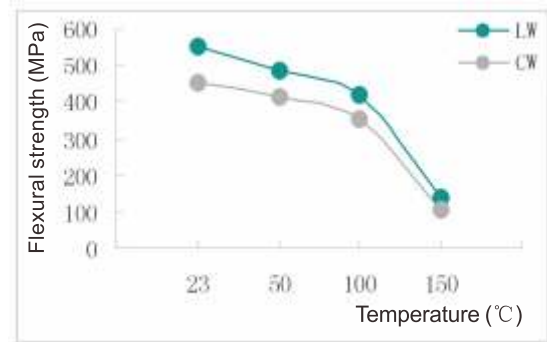
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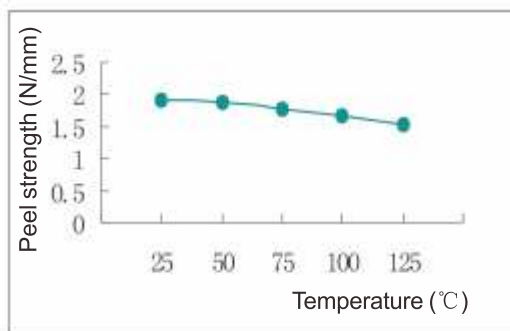
Water absorption at pressure cooker



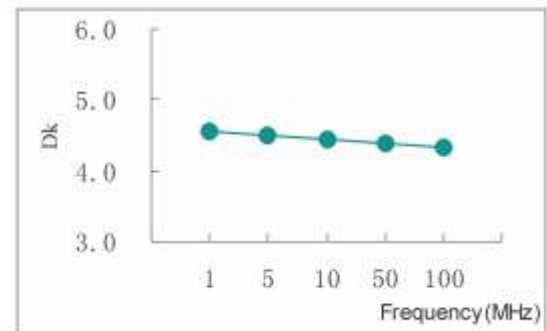
Flexural strength



Peel strength



Dielectric constant



S1141 150 VS. Conventional FR-4

Property	S1141 150	Conventional FR-4 (S1130)
Tg (°C)	150	135
Z-CTE (ppm/°C) [30~260°C]	178	205

PURCHASING INFORMATION

Thickness	Copper foil	Standard Size
0.05mm to 3.2mm	12 μ m to 105 μ m	1,020×1,220mm (40" × 48") 915×1,220mm (36" × 48") 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 150 PREPREG

(UL ANSI:FR-4.0) Bonding Prepreg For S1141 150

FEATURES

- Tg150℃ (DSC) .
- UV Blocking/AOI Compatible.
- Excellent bonding strength ,wide operating window.

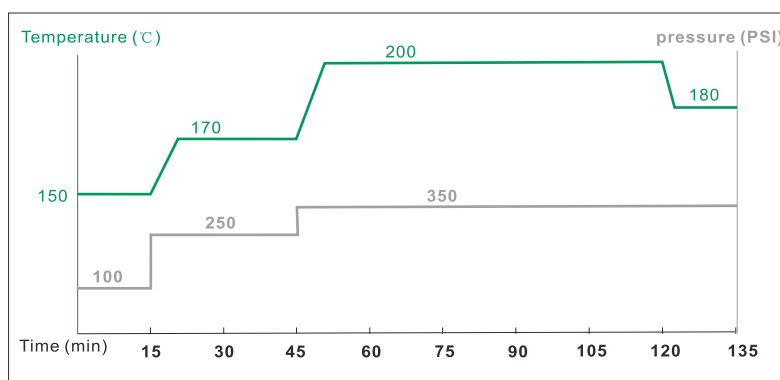
PREPREG PARAMETERS

Glass fabric type	Resin content (%)	Cured thickness (mm)	DK(1GHz)	Df(1GHz)	Standard size (Roll type)
106	71	0.050	3.5	0.028	1.260m X150m
1080	65	0.080	3.7	0.024	1.260m X300m
2116	53	0.123	4.0	0.019	1.260m X250m
7628	43	0.195	4.2	0.014	1.260m X150m

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.

HOT PRESSING CYCLE



Heat-up rate: 1.0~2.5℃/min(80~140℃)

Curing time: >45min(170~180℃)

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

STORAGE CONDITION

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