



S1440

(UL ANSI:FR-4)UV Blocking/Low CTE

特点

- UV Blocking / AOI兼容。
- Tg140℃(DSC)。
- Low CTE。

FEATURES

- UV Blocking/AOI compatible.
- Tg 140℃(DSC) .
- Low CTE.

应用领域

电脑、仪器仪表、摄像机、通讯设备、汽车、电子游戏机等。

APPLICATIONS

Computer, instrumentation, VCR, communication equipment, automotive, electronic game machine, and etc.

GENERAL PROPERTIES

Test Item	Treatment Condition	Unit	Property Data	
			SPEC	Typical Value
Tg	DSC	℃	≥130	140
Flammability	C-48/23/50	Rating	V-0	V-0
	E-24/125			
Volume Resistivity	After moisture resistance	MΩ-cm	≥10 ⁶	1.7×10 ⁸
	E-24/125		≥10 ³	1.6×10 ⁶
Surface Resistivity	After moisture resistance	MΩ	≥10 ⁴	9.1×10 ⁷
	E-24/125		≥10 ³	3.1×10 ⁶
Arc Resistance	D-48/50+D-0.5/23	S	≥60	125
Dielectric Breakdown	D-48/50+D-0.5/23	KV	≥40	45
Dielectric Constant (1MHz)	C-24/23/50	-	≤5.4	4.7
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	1.5
			288℃, 10s	≥0.70
Flexural Strength	LW CW	MPa	≥415	522
			A	≥345
Water Absorption	D-24/23	%	≤0.8	0.15
CTE Z-axis	Before Tg	TMA	μm/m℃	49
	After Tg	TMA	μm/m℃	260
	50~260℃	TMA	%	3.3
Td	10℃/min, N ₂ , 5% Wt Loss	℃	-	315
T260	TMA	min	-	15
T288	TMA	min	-	2
CTI	IEC60112 Method	V	PLC 2(250V--400V)	PLC 2

Remarks: 1.Specification sheet:IPC-4101/97, 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 Sci.Tech.Co., Ltd. for detailed information, and all rights from this data sheet are reserved by Shengyi Sci.Tech.Co., Ltd.

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

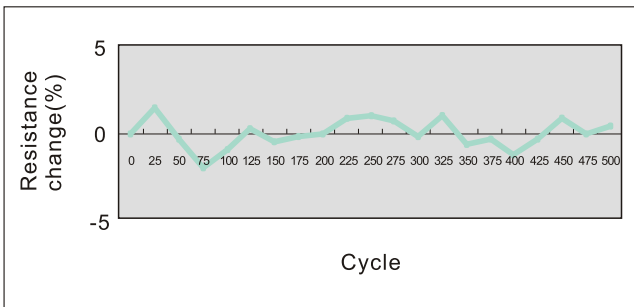
The figures following the letter symbols indicate with the first digit the duration of the preconditioning in hours, with the second digit the preconditioning temperature in ℃ and with the third digit the relative humidity.



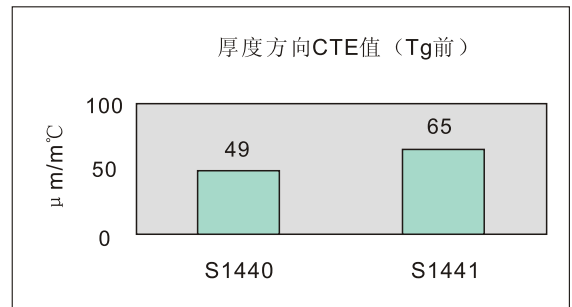
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■ **Q500**



■ **Z-axis CTE(before Tg)**



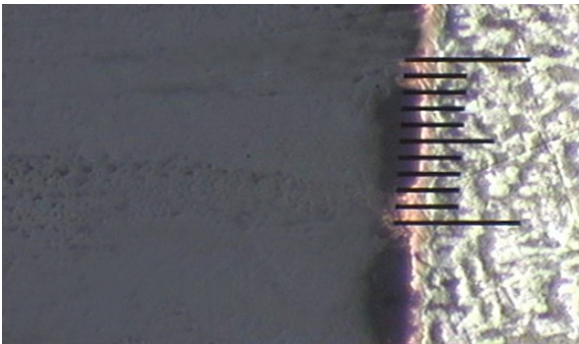
Test condition:

- A) Pre-treatment: 125°C/2hr in oven;
- B) -40°C(30min)~+125°C(30min), transfer time < 2min.

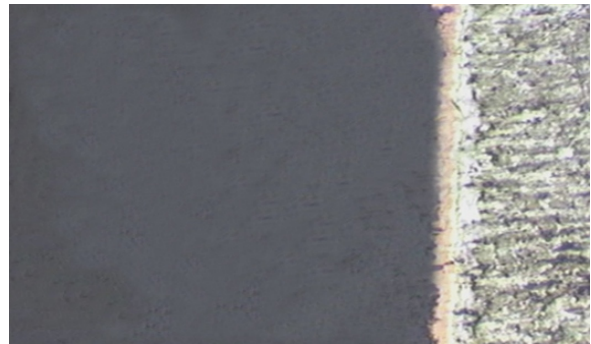
■ **Comparison Chart of Resin Recession**

Test condition: solder dipping 288°C/20S→25°C, 3X, Hole dia: 1.0mm

S1141



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PURCHASING INFORMATION

Thickness	Copper foil	Standard Size	
		0.05mm to 3.2mm	12 μ m to 105 μ m

❖ Other sheet size and thickness could be available upon request.



S0440 PREPREG

(UL ANSI:FR-4) Bonding Prepreg For S1440

特点

- 优良的粘结强度。
- 优秀的工艺性能，作业窗口宽。
- UV Blocking与AOI兼容。

FEATURES

- Excellent bonding strength.
- Excellent processing characteristics with wide operating window.
- UV Blocking and AOI compatible.

PREPREG PARAMETERS

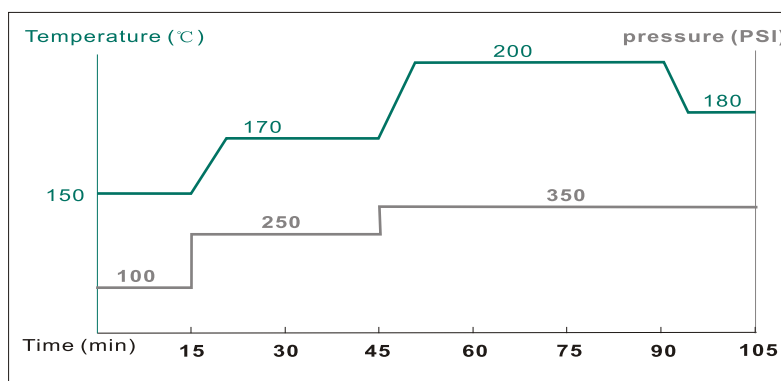
Designation	Glass fabric type	Performance	Gel time (sec)	Resin Content (%)	Resin flow (%)	Cured Thickness (μm)	Standard Size (roll type)
S0440	1080	Low CTE	150 \pm 20	65 \pm 3	28 \pm 5	75 \pm 10	1,260mm \times 114.3m (125yards)
	2116			55 \pm 3	22 \pm 5	120 \pm 15	
	7628			45 \pm 3	17 \pm 5	195 \pm 20	

Type, Resin Content and Size Could be Available Upon Request

Prepreg Test Method

- Resin Content, Resin Flow, Gel Time: IPC-TM-650

HOT PRESSING CYCLE



Heat-up rate: 1.5~2.5°C/min(80~140°C)

Curing time: >30min(170~180°C)

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

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.