

# S1141 170

(ANSI:FR-4)UV Blocking/ High Tg

## 特点

- 高Tg170℃(DSC)。
- UV Blocking 和 AOI兼容。
- 优秀的耐热性和耐化学性。
- 能通过多次的热冲击测试。
- 从环境温度到260℃, 板材具备较低的热膨胀系数。
- PCB制作工艺与标准FR-4相同。

## FEATURES

- Higher Tg170℃(DSC).
- UV Blocking and AOI compatible.
- Superior thermal and chemical reliability.
- Passes multiple hot shock testing.
- Lower CTE from ambient to 260℃.
- Standard FR-4 processing.

## 应用领域

计算机及外围设备、通讯设备、仪器仪表、办公自动设备等。

## APPLICATIONS

Computer, communication equipment instrumentation, OA equipment, etc.

## GENERAL PROPERTIES

Test Item	Treatment Condition	Unit	Property Data	
			SPEC	Typical Value
Tg	DSC	℃	≥165	175
Flammability	C-48/23/50	-	V-0	V-0
	E-24/125			
Volume Resistivity	After moisture resistance	MΩ-cm	≥ 10 <sup>6</sup>	5×10 <sup>8</sup>
	E-24/125		≥ 10 <sup>3</sup>	5×10 <sup>6</sup>
Surface Resistance	After moisture resistance	MΩ	≥ 10 <sup>4</sup>	5×10 <sup>7</sup>
	E-24/125		≥ 10 <sup>3</sup>	5×10 <sup>6</sup>
Arc Resistance	D-48/50+D-0.5/23	S	≥ 60	115
Dielectric Breakdown	D-48/50+D-0.5/23	KV	≥ 40	55
Dielectric Constant (1MHz)	C-24/23/50	-	≤ 5.4	4.5
Dissipation Factor (1MHz)	C-24/23/50	-	≤ 0.035	0.016
Thermal Stress	288℃, 20s	-	No delamination	
			Unetched	Etched
Peel Strength	288℃, 10s	N/mm	≥ 1.05	1.7
	1oz Cu. Foil 125℃		≥ 0.70	1.5
Flexural Strength	A	MPa	≥ 415	600
			LW	≥ 345
CW				
Water Absorption	D-24/23	%	≤ 0.35	0.15

Specimen Thickness:1.6mm

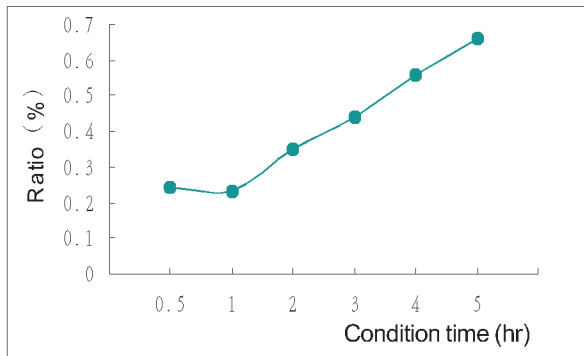
Explanations: C = Humidity conditioning;  
D = Immersion conditioning in distilled water;  
E = Temperature conditioning.

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.

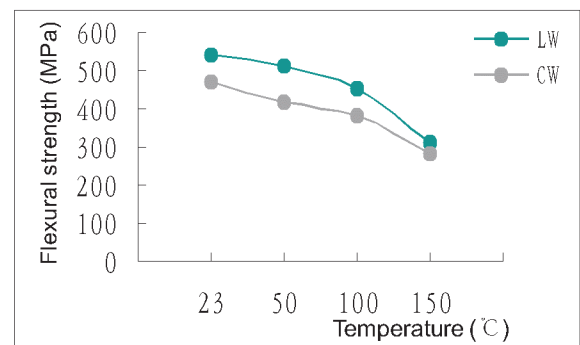
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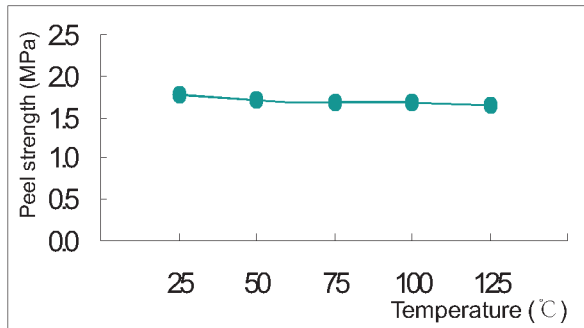
## Water absorption at pressure cooker



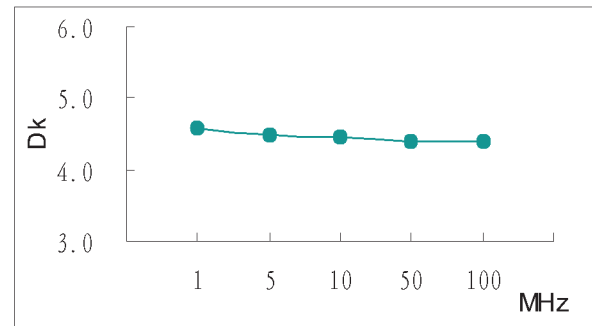
## Flexural strength



## Peel strength



## Dielectric constant



## S1141 170 VS. Conventional FR-4

Property	S1141 170	Conventional FR-4 (S1130)
Tg (°C)	175	135
Z CTE (ppm/°C) [30-260°C]	160	190

## PURCHASING INFORMATION

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

\* Other sheet size and thickness could be available upon request.