



# S1140F

(ULANSI:FR-4.0) UV Blocking

## FEATURES

- Lower Z-axis CTE
- Better thermal resistance
- Good T/H reliability
- Lower water absorption

## APPLICATIONS

Computer, Instrumentation, Communication equipment, Automotive electronics, Power supplier

## GENERAL PROPERTIES

Items	Condition	Unit	Property Data	
			Spec	Typical Value
Tg	DSC	°C	≥130	135
Flammability	C-48/23/50 and E-24/125	-	V-0	V-0
Volume Resistivity	After moisture resistance	MΩ-cm	≥10 <sup>6</sup>	1.5E+08
	E-24/125		≥10 <sup>3</sup>	3.2E+06
Surface Resistivity	After moisture resistance	MΩ	≥10 <sup>4</sup>	3.5E+07
	E-24/125		≥10 <sup>3</sup>	2.3E+06
Arc Resistance	D-48/50+D-0.5/23	S	≥60	125
Dielectric Breakdown	D-48/50+D-0.5/23	KV	≥40	45KV+NB
Dielectric Constant	(1GHz)	C-24/23/50	-	4.6
	(1MHz)	C-24/23/50	-	≤5.4
Dissipation Factor	(1GHz)	C-24/23/50	-	0.012
	(1MHz)	C-24/23/50	-	≤0.035
Thermal Stress	288°C, solder dip	-	>10s No Delamination	>120s No Delamination
Peel Strength (1 Oz)	288°C/10s	N/mm	≥1.05	1.35
Flexural Strength	LW	Mpa	≥415	530
	CW		≥345	440
Water Absorption	D-24/23	%	≤0.5	0.09
CTE(Z-axis)	Before Tg	PPM/°C	-	50
	After Tg	PPM/°C	-	250
	50-260°C	%	-	3.5
Td	Wt5%loss	°C	-	315
T260	TMA	min	-	25
T288	TMA	min	-	3
CTI	IEC60112Method	V	PLC3 (175~249)	PLC3

Specimen thickness: 1.5~1.6mm. Test method is according to IPC TM-650.

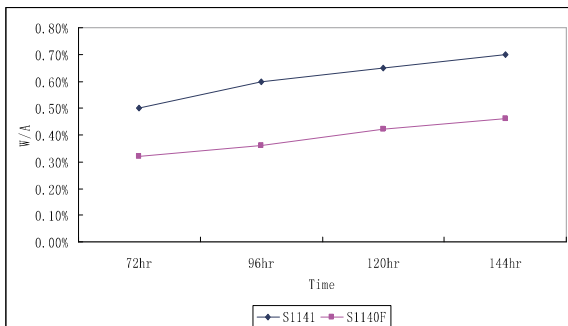


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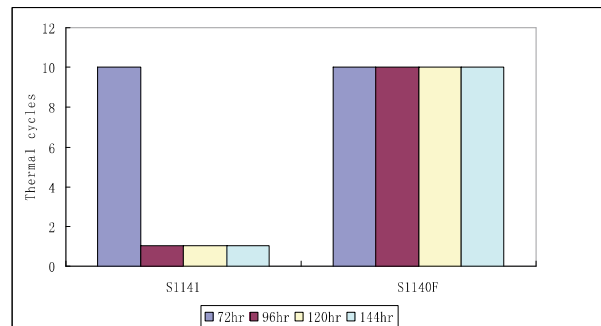
## ■ Humidity resistance

(85deg C, 85% humidity)



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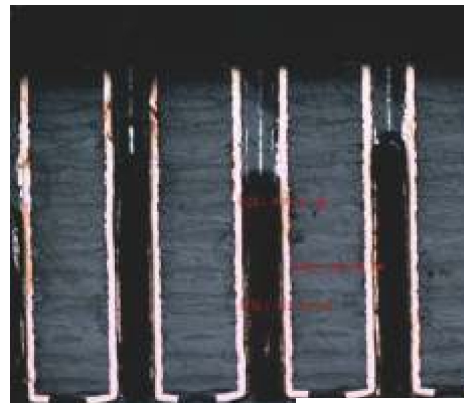


## ■ Better through hole quality (hole wall roughness/resin recession)

10 层板: H+2116+0.12 1/1+1080+7628+1080+0.12 1/1+7628\*2+0.12 1/1+1080+7628+1080+0.12 1/1+2116+H  
 整板厚 2.2mm, PITCH0.8mm, 钻嘴 0.35mm  
 无铅回流六次

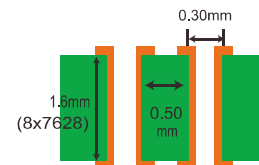
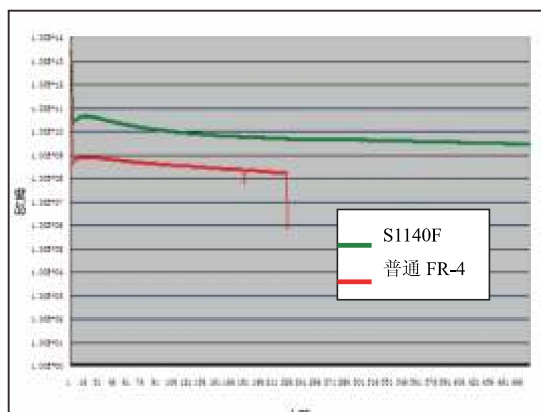


普通 FR-4 材料



S1140F 材料

## ■ Excellent Anti-CAF performance



**Pretreatment condition:**  
 125°C/4hrs->85°C/85%RH/96hrs->260°C  
 °Lead free reflow 1X  
**CAF condition:**  
 85°C/85%RH/50VDC