



S1600

(UL ANSI:FR-4.0) High CTI

FEATURES

- Excellent tracking resistance, CTI \geq 600V.
- UV Blocking.
- Good PCB processability.
- Not recommended for solder mask rework.

APPLICATIONS

PDP,LCD,power base board, TV, refrigerator, washing machine, and etc.
Not suitable for Anti-CAF application.

GENERAL PROPERTIES

Test Item	Treatment Condition	Unit	Property Data	
			SPEC	Typical Value
Tg	DSC	°C	≥ 125	135
Flammability	C-48/23/50	-	V-0	V-0
	E-24/125			
Volume Resistivity	After moisture resistance	M Ω -cm	$\geq 10^6$	5.0×10^8
	E-24/125		$\geq 10^3$	5.0×10^6
Surface Resistivity	After moisture resistance	M Ω	$\geq 10^4$	5.0×10^7
	E-24/125		$\geq 10^3$	5.0×10^6
Arc Resistance	D-48/50+D-0.5/23	S	≥ 60	126
Dielectric Breakdown	D-48/50+D-0.5/23	KV	≥ 40	60
Dielectric Constant (1MHz)	C-24/23/50	-	≤ 5.4	4.7
Dissipation Factor (1MHz)	C-24/23/50	-	≤ 0.035	0.016
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	550
	CW		≥ 345	450
Water Absorption	D-24/23	%	≤ 0.80	0.10
CTI	IEC60112 Method	V	PLC 0($\geq 600V$)	PLC 0
CTE z-axis	Before Tg	TMA	PPM/°C	55
	After Tg		PPM/°C	308
Td	10°C/min, N ₂ , 5%Wt Loss	°C	-	310

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 ≥ 0.50 mm.
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.

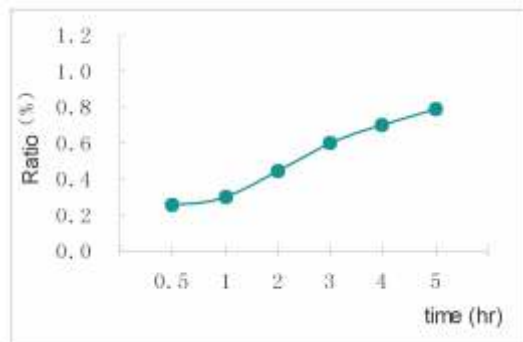
The figures following the letter symbols indicate with the first digit the duration of the preconditioning in hours, with the second digit the preconditioning temperature in °C and with the third digit the relative humidity.



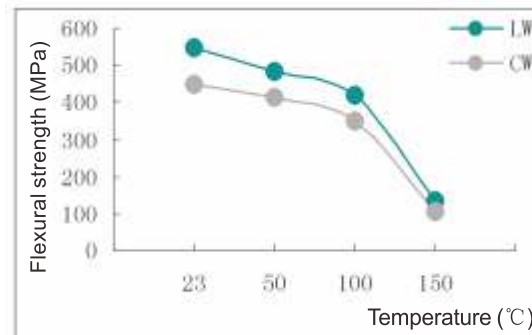
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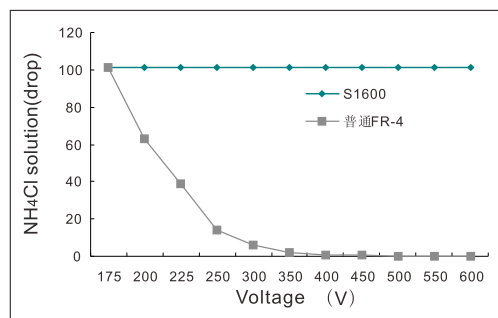
Water absorption at pressure cooker



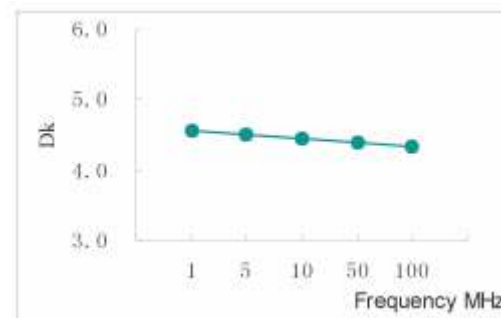
Flexural strength



The CTI difference between S1600 and standard FR-4



Dielectric constant



PURCHASING INFORMATION

Thickness	Copper foil	Standard Size	
0.8mm 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.