



# S1000

(UL ANSI:FR-4)Low Z-CTE

## 特点

- 无铅兼容FR-4板材。
- Tg(DSC)155℃,UV Blocking 和 AOI兼容。
- 优良的耐热性。
- 比普通FR-4降低约30~35%的Z轴热膨胀系数。
- 优良的通孔可靠性。
- 优异的耐CAF性和Q1000性能。
- 低吸水性。

## FEATURES

- Lead-free compatible FR-4 Laminate.
- Tg(DSC)155℃,UV Blocking/ AOI compatible.
- Excellent thermal reliability.
- Z-CTE 30~35% less than conventional FR-4.
- Excellent T/H reliability.
- Excellent anti-CAF and Q1000 performance.
- Low water absorption.

## 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 electronics, electronic game machine, and etc.

## GENERAL PROPERTIES

Test Item	Treatment Condition	Unit	Property Data		
			SPEC	Typical Value	
Tg	DSC	℃	≥150	155	
Flammability	C-48/23/50	Rating	V-0	V-0	
	E-24/125				
Volume Resistivity	After moisture resistance	MΩ-cm	≥10 <sup>6</sup>	7.4×10 <sup>6</sup>	
	E-24/125		≥10 <sup>3</sup>	5.6×10 <sup>6</sup>	
Surface Resistivity	After moisture resistance	MΩ	≥10 <sup>4</sup>	7.6×10 <sup>7</sup>	
	E-24/125		≥10 <sup>3</sup>	2.8×10 <sup>6</sup>	
Arc Resistance	D-48/50+D-0.5/23	S	≥60	147	
Dielectric Breakdown	D-48/50+D-0.5/23	KV	≥40	45	
Dielectric Constant (1MHz)	C-24/23/50	-	≤5.4	4.9	
Dissipation Factor (1MHz)	C-24/23/50	-	≤0.035	0.011	
Thermal Stress	Unetched	288℃, solder dip	>10s	100s	
	Etched		No delamination	No delamination	
Peel Strength	1oz Cu. Foil	288℃, 10s	≥1.05	1.4	
		125℃	≥0.70	1.2	
Flexural Strength	LW	A	≥415	540	
	CW		≥345	450	
Water Absorption	D-24/23	%	≤0.5	0.09	
CTE	Before Tg	TMA	PPM/℃	≤60	49
	After Tg	TMA	PPM/℃	≤300	250
Z-axis	50~260℃	TMA	%	≤3.5	3.4
Td	10℃/min, N <sub>2</sub>	℃	≥325	335	
T288	TMA	min	≥5	10	
T260	TMA	min	≥30	60	
CTI	IEC60112	V	PLC 3(175V--249V)	PLC 3	

Remarks: 1.Specification sheet:IPC-4101/99, 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.