



# S1000-2

(UL ANSI:FR-4) Low CTE / Hi-Tg / Excellent Thermal Resistance

## 特点

- 无铅兼容FR-4板材。
- 高Tg170℃(DSC), UV Blocking和AOI兼容。
- 高耐热性。
- 较低Z-CTE值。
- 优异的通孔可靠性。
- 优异的Anti-CAF性能。
- 低吸水性。

## FEATURES

- Lead-free compatible FR-4 laminate.
- Tg 170°C (DSC), UV Blocking / AOI compatible.
- High heat resistance .
- Lower Z-axis CTE.
- Excellent through-hole reliability.
- Excellent anti-CAF performance.
- Low water absorption.

## 应用领域

适合于厚铜、厚径比较大结构的高多层印制线路板，广泛应用于计算机与通讯设备，工业控制用高档仪器仪表、路由器等。

## APPLICATIONS

Suitable for high aspect ratio and high-layer PCB. Widely used in computer, communication equipment, precise apparatus and instrument, router, and etc.

## GENERAL PROPERTIES

Test Item	Treatment Condition	Unit	Property Data	
			SPEC	Typical Value
Tg	DSC	°C	≥170	180
Flammability	C-48/23/50	Rating	V-0	V-0
	E-24/125+des			
Volume Resistivity	After moisture resistance	MΩ-cm	≥ 10 <sup>6</sup>	2.2×10 <sup>8</sup>
	E-24/125		≥ 10 <sup>3</sup>	4.5×10 <sup>6</sup>
Surface Resistivity	After moisture resistance	MΩ	≥ 10 <sup>4</sup>	7.9×10 <sup>7</sup>
	E-24/125		≥ 10 <sup>3</sup>	1.7×10 <sup>6</sup>
Arc Resistance	D-48/50+D-0.5/23	S	≥ 60	100
Dielectric Breakdown	D-48/50+D-0.5/23	KV	≥ 40	63
Dielectric Constant (1MHz)	C-24/23/50	-	≤ 5.4	4.8
Dissipation Factor (1MHz)	C-24/23/50	-	≤ 0.035	0.013
Thermal Stress	Unetched	288°C, solder dip	> 10s	100s
	Etched		No delamination	No delamination
Peel Strength	1oz	288°C, 10s	N/mm	≥ 1.05
	Cu. Foil			
Flexural Strength	LW	A	MPa	≥ 415
	CW			≥ 345
Water Absorption	D-24/23	%	≤ 0.5	0.10
CTE Z-axis	Before Tg	TMA	PPM/°C	≤60
	After Tg	TMA	PPM/°C	≤300
		50~260°C	TMA	%
Td	10°C/min, N <sub>2</sub> , 5%Wt Loss	°C	≥340	345
T288	TMA	min	≥15	20
T260	TMA	min	≥30	60
T300	TMA	min	≥2	5
CTI	IEC60112 Method	V	PLC 3(175V--249V)	PLC 3

Remarks: 1.Specification sheet:IPC-4101/126, 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 °C and with the third digit the relative humidity.