



S1000-2

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

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.

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 ⁶	2.2×10 ⁸	
	E-24/125		≥ 10 ³	4.5×10 ⁶	
Surface Resistivity	After moisture resistance	MΩ	≥ 10 ⁴	7.9×10 ⁷	
	E-24/125		≥ 10 ³	1.7×10 ⁶	
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	1.38	
	Cu. Foil	125°C			
Flexural Strength	LW	A	≥ 415	562	
	CW		≥ 345	518	
Water Absorption	D-24/23	%	≤ 0.5	0.10	
CTE Z-axis	Before Tg	TMA	PPM/°C	≤ 60	45
	After Tg	TMA	PPM/°C	≤ 300	220
	50~260°C	TMA	%	≤ 3.0	2.8
Td	10°C/min, N ₂ , 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.