



# SDI06K

(UL ANSI: FR-15.1) Low CTE & Low Loss & Low Dk Halogen-free Material for HDI PCB

## FEATURES

- Lead-free compatible.
- High Tg Halogen-free, Tg 220°C (TMA).
- Low Dk & Low Loss.
- Lower X/Y/Z-axis CTE.

## APPLICATIONS

Smart phone, NB, Tablet, Instrumentation, VCR, SSD, DDR, Communication Equipment, Automotive electronics, etc..

## GENERAL PROPERTIES

Test Items		Test Condition	Test Method	Unit	Typical Value
Tg		TMA	IPC TM-650 2.4.24	°C	220
		DMA	IPC TM-650 2.4.24.2		260
Td		TGA (5% W.L)	IPC TM-650 2.4.24.6	°C	>420
T288		TMA	IPC TM-650 2.4.24.1	min	>60
Flammability		C-48/23/50, E-24/125	UL94	Rating	V-0
		E-24/125+des			
Volume Resistivity		After moisture resistance	IPC TM-650 2.5.17.1	MΩ-cm	4.76 × 10 <sup>10</sup>
		E-24/125			5.00 × 10 <sup>9</sup>
Surface Resistivity		After moisture resistance	IPC TM-650 2.5.17.1	MΩ	1.84 × 10 <sup>10</sup>
		E-24/125			5.00 × 10 <sup>9</sup>
Arc Resistance		D-48/50+D-0.5/23	IPC TM-650 2.5.1	s	181
Dielectric Breakdown		D-48/50+D-0.5/23	IPC TM-650 2.5.6	kV	45+kV NB
Dielectric Constant	C-24/23/50, RC=50%/70%	1GHz	IPC TM-650 2.5.5.9	-	4.0/3.53
		10GHz	IPC TM-650 2.5.5.5		3.92/3.5
Dissipation Factor	C-24/23/50, RC=50%/70%	1GHz	IPC TM-650 2.5.5.9	-	0.0040/0.0050
		10GHz	IPC TM-650 2.5.5.5		0.0070/0.0075
Thermal Stress	Unetched	288°C, solder dip	IPC TM-650 2.4.13.1	-	Pass
	Etched				
Peel Strength		A, T oz RTF	IPC TM-650 2.4.8	N/mm	0.65
		125°C, T oz RTF			0.60
Storage Modulus	LW	A	IPC TM-650 2.4.24.2	GPa	28
	CW				27
Water Absorption		D-24/23	IPC TM-650 2.6.2.1	%	0.15
CTE Z-axis	Before Tg	TMA	IPC TM-650 2.4.24c	ppm/°C	25-30
	After Tg	TMA	IPC TM-650 2.4.24c	ppm/°C	90-120
	50-260°C	TMA	IPC TM-650 2.4.24c	%	1.2
CTE <sup>(*)</sup> X/Y-axis	Before Tg	TMA	IPC TM-650 2.4.24.5	ppm/°C	8-10
Thermal conductivity(**)		ASTM-D5470	A	W/ (m·K)	0.59
CTI		IEC60112	A	Rating	PLC3

Remarks: 1. All the typical value is based on the 0.8mm specimen. (\*) is based on 0.10mm(1x2116) specimen. (\*\*) Thermal conductivity is based on 0.12mm(2x1078) specimen.

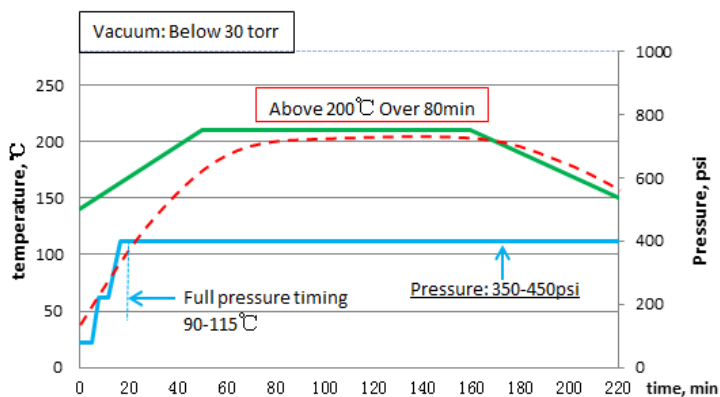
2. All the typical value listed above is for your reference only, please turn to Shengyi Technology Co., Ltd for detailed information, and all rights from this data sheet are reserved by Shengyi Technology Co., Ltd.



# SDI06KB PREPREG

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## HOT PRESSING CYCLE



- Heat up rate: 1.5-3.0°C/min (80-140°C).
- Curing time: >80min (>200°C).
- Full pressure timing: product temperature 90-115°C.
- The hot pressing parameter is for your reference only, please turn to Shengyi Technology Co., Ltd for detailed information.

## STORAGE CONDITION

- 3 months when stored at < 23°C and <50% RH.
- 6 months when stored at <5°C. Normalize in room temperature for at least 4h before using.
- Beware of moisture, always keep wrapped in damp-proof material. Were kept in normal condition, prepreg might absorb moisture and its bonding strength would be weakened.