



# ST210G

(UL ANSI:CEM-3) CEM-3 for LED Display

## 特点

- 良好的导热性，热导率  $\geq 1.0 \text{ W/m.K}$ 。
- CTI  $\geq 600\text{V}$ 。
- 无铅兼容。
- 基材白色，不透明，遮光性好。
- 加工工艺与FR-4相同。

## FEATURES

- Good thermal conductivity ,  $\geq 1.0\text{W/m.K}$ .
- Excellent tracking resistance , CTI  $\geq 600\text{V}$
- Lead-free compatible CEM-3 laminate
- White and opaque with good color-change resistance
- PCB processing equivalent to FR-4

## 应用领域

LED显示及照明、汽车电子、电源基板。

## APPLICATIONS

LED display and lighting, Automotive, Power base board.

## GENERAL PROPERTIES

Test Item	Treatment Condition	Unit	Property Data	
			SPEC	Typical Value
Tg	DSC	°C	$\geq 120$	122
Flammability	C-48/23/50	Rating	V-0	V-0
	E-24/125			
Volume Resistivity	C-96/35/90	M $\Omega$ -cm	$\geq 10^6$	$8.9 \times 10^8$
	E-24/125		$\geq 10^3$	$2.5 \times 10^6$
Surface Resistivity	C-96/35/90	M $\Omega$	$\geq 10^4$	$5.7 \times 10^7$
	E-24/125		$\geq 10^3$	$1.5 \times 10^6$
Arc Resistance	D-48/50+D-0.5/23	S	$\geq 60$	115
Dielectric Breakdown	D-48/50+D-0.5/23	KV	$\geq 40$	45+Kv NB
Dielectric Constant (1MHz)	C-24/23/50	-	$\leq 5.4$	5.1
Dissipation Factor (1MHz)	C-24/23/50	-	$\leq 0.035$	0.013
Thermal Stress	Unetched	288°C	-	20s
	Etched			60s
Peel Strength	1oz	288°C, 10s	N/mm	$\geq 1.05$
	Cu. Foil			125°C
Flexural Strength	LW	A	MPa	$\geq 276$
	CW			$\geq 186$
Water Absorption	D-24/23	%	$\leq 0.50$	0.12
CTE Z-axis	Before Tg	TMA	$\mu \text{ m/m}^\circ\text{C}$	-
	After Tg		$\mu \text{ m/m}^\circ\text{C}$	-
	50~260°C		%	-
CTI	IEC60112 Method	V	PLC3(175V-249V)	PLC0
Thermal conductivity	ASTM5470	w/m.k	$\geq 1.0$	1.05

Remarks: 1.Specification sheet:IPC-4101/12, is for your reference only.  
 2.All the typical value is based on the 1.6mm specimen,while the Tg is for specimen  $\geq 0.50\text{mm}$ .  
 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.

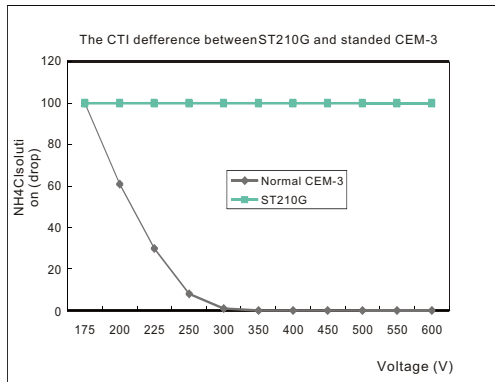
The figures following the letter symbols indicate with the first digit the duration of the preconditioning in hours, with the second digit the preconditioning temperature in °C and with the third digit the relative humidity.



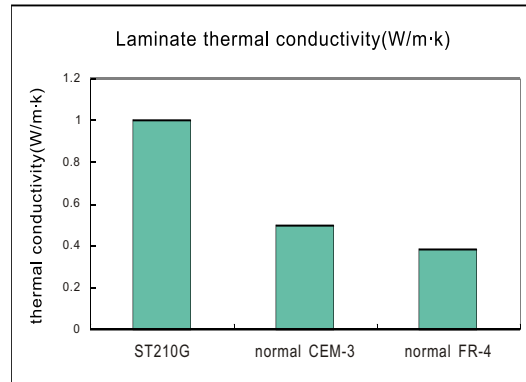
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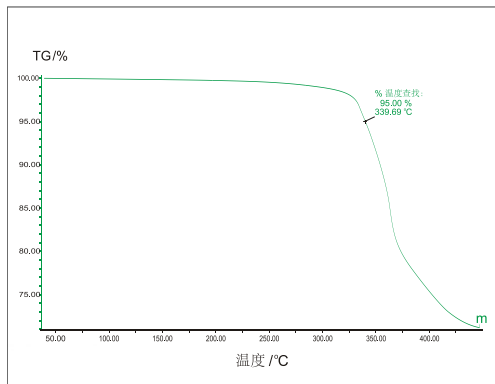
## ■ CTI



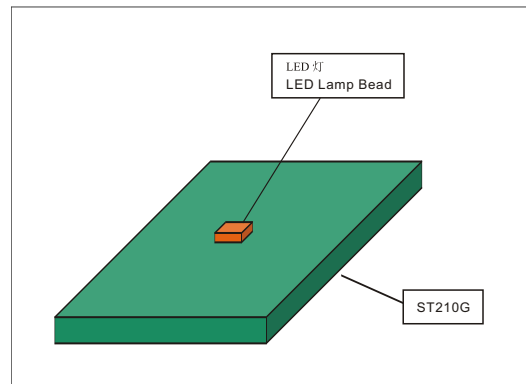
## ■ Thermal Conductivity



## ■ TGA



## ■ LED Applications



## PURCHASING INFORMATION

Thickness	Copper foil	Standard Size	
0.63mm to 3.2mm	18 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.