



S2155

HFR-free CEM-3

FEATURES

- Free of constituents such as halogen, antimony and red phosphorus.
- Low emitting of smoke and odors in combustion, non-emitting of poisonous gas and no residue of harmful constituents.
- Excellent tracking resistance, CTI \geq 600V.
- Excellent mechanical process ability, lower wearing of drill bit and punching die.

APPLICATIONS

Home electrical appliance, OA equipment, power base board, apparatus and instrument, game machine, and etc.

GENERAL PROPERTIES

Items		Condition	Unit	Property Data	
				Spec	Typical Value
Tg		DSC	°C	≥ 120	130
Flammability		C-48/23/50 and E-24/125	Rating	V-0	V-0
Volume Resistivity		After moisture resistance	M Ω -cm	$\geq 10^6$	4.0×10^6
		E-24/125		$\geq 10^3$	3.0×10^7
Surface Resistivity		After moisture resistance	M Ω	$\geq 10^4$	5.0×10^6
		E-24/125		$\geq 10^3$	5.0×10^6
Arc Resistance		D-48/50+D-0.5/23	S	≥ 60	141
Dielectric Breakdown		D-48/50+D-0.5/23	KV	≥ 40	45KV+NB
Dielectric Constant	(1GHz)	C-24/23/50	-	-	4.4
	(1MHz)	C-24/23/50	-	≤ 5.4	4.8
Dissipation Factor	(1GHz)	C-24/23/50	-	-	0.013
	(1MHz)	C-24/23/50	-	≤ 0.035	0.011
Thermal Stress		288°C, solder dip	-	>10s No Delamination	60s No Delamination
Peel Strength	1oz Cu Foil	288°C/10s	N/mm	≥ 1.05	1.6
		125°C		≥ 0.7	1.3
Flexural Strength		LW	Mpa	≥ 276	410
		CW		≥ 186	297
Water Absorption		D-24/23	%	≤ 0.5	0.15
CTE(Z-axis)		Before Tg	PPM/°C	-	59
		After Tg	PPM/°C	-	330
		50-260°C	%	-	4.8
Td		5% Wt. loss	°C	-	335
T260		TMA	min	-	≥ 60
CTI		IEC60112 Method	V	PLC 0 ($\geq 600V$)	PLC 0

Remarks: 1.Specification sheet:IPC-4101/14 and JPCA, is for your reference only.

2.All the typical value is based on the 1.6mm specimen,while the Tg is for specimen ≥ 1.6 mm.

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.

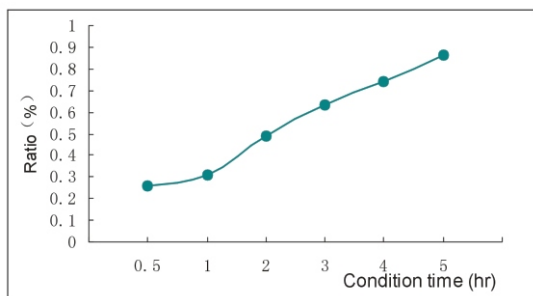
The figures following the letter symbols indicate with the first digit the duration of the preconditioning in hours, with the second digit the preconditioning temperature in °C and with the third digit the relative humidity.



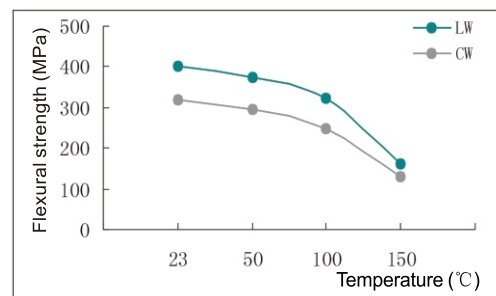
S2155

(UL ANSI:CEM-3) Halogen-Free CEM-3

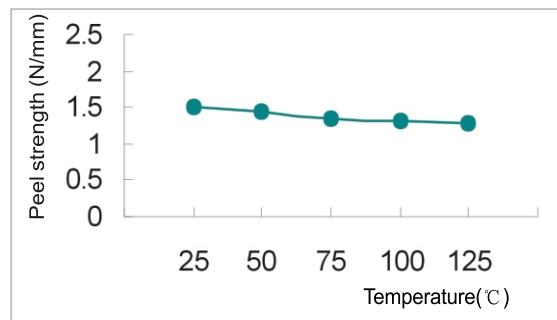
Water absorption at pressure cooker



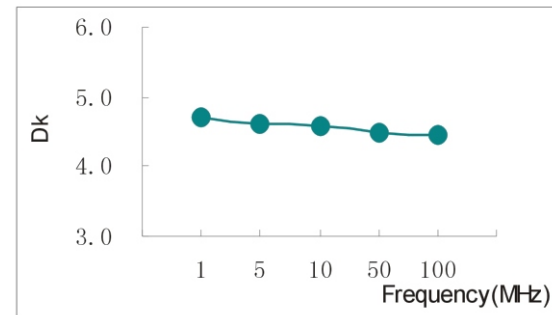
Flexural strength



Peel strength



Dielectric constant



PURCHASING INFORMATION

Thickness	Copper foil	Standard Size
0.6mm 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.

HALOGEN CONTENT TEST

❖ JPCA-ES-01-2003 Standard “Test method of halogen-free materials”

Halogen	JPCA Standard	S2155
Cl	≤0.09%	0.04%
Br	≤0.09%	0.00%