



# High Tg Low CTE, Lead-free & Halogen-free EM-370(Z) / EM-37B(Z)

- Low Z-axis CTE : 1.8% (50~260°C)
- Excellent CAF resistance
- Halogen, antimony and red phosphorus free
- Heavy copper application for automotive, power supply and server

## Basic Laminate Property

Item	IPC-TM-650	Test condition	Unit	Typical Value	
Glass transition temp.	2.4.25	DSC	°C	180	
CTE, Z-axis	2.4.24	Alpha 1, TMA	ppm/°C	35	
		Alpha 2, TMA	ppm/°C	155	
Z-axis Expansion	2.4.24	50~260°C, TMA	%	1.8	
Decomposition temp.	2.4.24.6	TGA	°C	380	
Thermal stress 10sec 288°C	2.4.13.1	Clad	—	Pass Visual	
		Etched	—	Pass Visual	
Solder floating 320°C 10sec	2.4.13.1	1.6mm CCL	- -	>6 times	
Water absorption	2.6.2.1	E-1/105+D-24/23	%	0.12	
Peel strength	0.5 oz	2.4.8	as received	lb/in	6.0
			after thermal stress	lb/in	6.0
	1.0 oz	2.4.8	as received	lb/in	8.0
			after thermal stress	lb/in	8.0
Permittivity (RC 50%)	1 MHz	2.5.5.9	C-24/23/50	—	4.7
	1 GHz			—	4.4
Loss tangent (RC 50%)	1 MHz	2.5.5.9	C-24/23/50	—	0.010
	1 GHz			—	0.015
Volume resistivity	2.5.17.1	C-96/35/90	MΩ-cm	>10 <sup>10</sup>	
Surface resistivity	2.5.17.1	C-96/35/90	MΩ	>10 <sup>9</sup>	
Flexural Strength	Warp	2.4.4	as received	MPa	520~560
	Fill		as received	Mpa	430~470
Flame Resistance	UL-94	A&E-24/125	-	V-0	

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