

EM-S570 / EM-S57B

High Modulus / Ultra Low CTE / Halogen Free

- Applications Include: FC-CSP/BGA, PoP, SiP
- Compatible with multiple lamination and high thermal reliability applications.
- Ultra low CTE in X/Y direction
- RoHS Compliant
- UL File: E150504
- Applicable IPC-4103 Slash Sheets: 250/ 550

Basic Laminate Property

Property	Item		Typical Value	Unit	Test Condition	IPC-TM-650
Thermal	Tg		280	°C	TMA	2.4.24
			320	°C	DMA	2.4.24.4
	CTE, X/Y-axis		4/6	ppm/°C	< Tg, TMA	2.4.24.5
	CTE, Z-axis		8~13	ppm/°C	< Tg, TMA	2.4.24
			70~90	ppm/°C	> Tg, TMA	
	Td		440	°C	TGA (5%W.L)	2.4.24.6
	T288		> 60	Min	Clad	2.4.24.1
			> 60	Min	Etched	
Thermal Conductivity		0.59	W/m.K	-	ASTM D5470	
Electrical	Dk (R/C:50%)	1GHz	4.5	-	C-24/23/50	2.5.5.9
	Df (R/C:50%)		0.006			
	Volume Resistivity		> 10 ¹⁰	MΩ-cm	C-96/35/90	2.5.17.1
	Surface Resistivity		> 10 ⁹	MΩ		
Physical	Peel Strength (RTF)	18um	0.9	kg/cm	As Received	2.4.8
	Flexural Modulus	Warp	30~32	GPa	As Received	2.4.4
	Flame Resistance		V-0	-	A & E-4/125	UL-94

Above typical values are tested under specified constructions and not intended for specification.