

EM-370(5) / EM-37B(5)

Middle Tg / CAF Resistance / Halogen Free

- Applications include: LCD, memory module, mobile device and automotive.
- Designed for high thermal reliability with excellent CAF resistance.
- Outstanding multiple lamination capability.
- RoHS Compliant
- UL File: E150504
- Applicable IPC Slash Sheets: IPC-4101 /127, /128; IPC-4103 /250, /550

Basic Laminate Property

Property	Item		Typical Value	Unit	Test Condition	IPC-TM-650
Thermal	Tg		155	°C	DSC	2.4.25
			150	°C	TMA	2.4.24
			175	°C	DMA	2.4.24.4
	CTE, X/Y-axis		12/15	ppm/°C	< Tg, TMA	2.4.24.5
	CTE, Z-axis		35~40	ppm/°C	< Tg, TMA	2.4.24
			180~200	ppm/°C	> Tg, TMA	
	Z-axis Expansion		2.6	%	50~260 °C	2.4.24
	Td		385	°C	TGA (5% W.L)	2.4.24.6
	T288		>60	min.	Clad	2.4.24.1
			>60	min.	Etched	
	Thermal Conductivity		0.48	W/mK	-	ASTM D5470
Electrical	Dk (R/C: 50%)	1 MHz	4.8	-	C-24/23/50	2.5.5.9
		1 GHz	4.3	-		
	Df (R/C: 50%)	1 MHz	0.009	-	C-24/23/50	2.5.5.9
		1 GHz	0.013	-		
	Volume Resistivity		>10 ¹⁰	MΩ-cm	C-96/35/90	2.5.17.1
	Surface Resistivity		>10 ⁹	MΩ	C-96/35/90	2.5.17.1
	Electric Strength		>40	kV/mm	D-48/50+D-0.5/23	2.5.6.2
Physical	Dielectric Breakdown		>45	kV	D-48/50+D-0.5/23	2.5.6
	Water Absorption		0.13	%	E-1/105+D-24/23	2.6.2.1
	Peel Strength (HTE)	H oz	7.5	lb/in	As Received	2.4.8
			7.5	lb/in	After Thermal Stress	
		1 oz	8.5	lb/in	As Received	
			8.5	lb/in	After Thermal Stress	
	Flexural Strength	Warp	510~570	MPa	As Received	2.4.4
		Fill	450~500	MPa	As Received	
	Flame Resistance		V-0	-	A & E-24/125	UL-94

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