

EM-355(D) / EM-355B(D)

Middle Tg / Low Dk / Halogen Free

- Applications include: mobile devices and consumer products.
- Low Dk for impedance control.
- Low moisture absorption.
- Similar to FR-4 PCB process.
- RoHS Compliant
- UL File: E150504
- Applicable IPC Slash Sheets: IPC-4101 /127, /128 ; IPC-4103 /240, /540

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
			200~220	ppm/°C	> Tg, TMA	
	Z-axis Expansion		2.8	%	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		0.43	W/m.K	-	ASTM D5470
Electrical	Dk (R/C:70%)	2GHz	3.4	-	C-24/23/50	Cavity Resonator
	Df (R/C:70%)	2 GHz	0.013	-	C-24/23/50	
	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
Physical	Water Absorption		0.10	%	E-1/105+D-24/23	2.6.2.1
	Peel Strength (HTE)	H oz	6.5	lb/in	As Received	2.4.8
	Flexural Strength	Warp	510~570	MPa	As Received	2.4.4
		Fill	450~500	MPa	As Received	
	Flame Resistance		V-0	-	C-48/23/50	UL-94

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