Elite Material Co., Ltd.
http://www.emctw.com
Datasheet

EM-285 / EM-285B

Middle Tg / Lead Free / Halogen Free

- Applications include: LCD, memory module and mobile devices.
- Halogen, antimony and red phosphorus free.
- Low Df with low moisture absorption and excellent CAF resistance.
- Superior thermal resistance for lead-free process.
- FR-4 process friendly and suitable for sequential lamination.
- 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		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		40~45	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		360	°C	TGA (5% W.L)	2.4.24.6
	T288		>15	min.	Clad	2.4.24.1
			>60	min.	Etched	
	Thermal Conductivity		0.53	W/m.K	-	ASTM D5470
Electrical	Dk (R/C:50%)	1MHz	4.8	-	C-24/23/50	2.5.5.9
		1GHz	4.2	-		
	Df (R/C:50%)	1MHz	0.007	-	C-24/23/50	2.5.5.9
		1GHz	0.011	-		
	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		0.11	%	E-1/105+D24/23	2.6.2.1
	Peel Strength (HTE)	H oz	6.5	lb/in	As Received	2.4.8
			6.5	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.

Rev: 2023 Nov.