

IT-150

Features

- Tg >145 °C (DSC)
- Lower Z-axis CTE
- UL 94 V-0
- AOI and UV blocking characteristic

Properties

ITEQ Laminate/ Prepreg : IT-150TC / IT-150BS						
IPC-4101A Spec / 21						
LAMINATE (IT-150TC)						
Property	Thickness<0.50 mm [0.0197 in]		Thickness ≥ 0.50 mm [0.0197 in]		Units	Test Method
	Typical Value	Spec	Typical Value	Spec	Metric (English)	IPC-TM-650 (or as noted)
Peel Strength, minimum						
A. Low profile copper foil and very low profile copper foil - all copper weights > 17µm [0.669 mil]	0.96(5.5)	0.70(4.0)	0.96(5.5)	0.70(4.0)	N/mm (lb/inch)	2.4.8 2.4.8.2 2.4.8.3
B. Standard profile copper foil						
1. After Thermal Stress	1.75(10.0)	0.80 (4.57)	1.93(11.0)	1.05 (6.00)		
2. At 125°C [257 F]	1.66(9.5)	0.70 (4.00)	1.66(9.5)	0.70 (4.00)		
Volume Resistivity, minimum						
A. C-96/35/90	5x10 ⁸	10 ⁶		---	MΩ-cm	2.5.17.1
B. After moisture resistance	-	---	5x10 ⁸	10 ⁴		
C. At elevated temperature E-24/125	5x10 ⁷	10 ³	5x10 ⁷	10 ³		
Surface Resistivity, minimum						
A. C-96/35/90	3.5x10 ⁶	10 ⁴		---	MΩ	2.5.17.1
B. After moisture resistance	---	---	3.5x10 ⁶ ---	10 ⁴		
C. At elevated temperature E-24/125	6x10 ⁶	10 ³	6x10 ⁶	10 ³		
Moisture Absorption, maximum	0.30	-	0.1	0.8	%	2.6.2.1
Dielectric Breakdown, minimum	-	-	60	40	kV	2.5.6
Permittivity at 1 MHz, maximum (Laminate & Prepreg as laminated)	4.6	5.4	4.6	5.4	---	2.5.5.3
Loss Tangent at 1 MHz, maximum (Laminate & Prepreg as laminated)	0.016	0.035	0.016	0.035	---	2.5.5.3
Flexural Strength, minimum						
A. Length direction	-	---	500(72,500)	415 (60,190)	N/mm ² (lb/in ²)	2.4.4
B. Cross direction	-	---	440(64,000)	345 (50,140)		
Arc Resistance, minimum	120	60	120	60	S	2.5.1
Thermal Stress 10 s at 288°C [550.4F], minimum						
A. Unetched	Pass	Pass Visual	Pass	Pass Visual	Rating	2.4.13.1
B. Etched	Pass	Pass Visual	Pass	Pass Visual		
Electric Strength, minimum (Laminate & Prepreg as laminated)	45	30	-	---	kV/mm	2.5.6.2
Flammability, (Laminate & Prepreg as laminated)	V-0	V-1	V-0	V-1	Rating	UL94
Glass Transition Temperature	150	110 - 150	150	110 - 150	°C	2.4.25
Decomposition Temperature		--	302	-	°C	2.3.40 (5% wt loss)
Z-Axis CTE						
A. Alpha 1	-	--	55	-	PPM/°C	2.4.24
B. Alpha 2	-	--	280	-	PPM/°C	
C. 50 to 260 Degrees C	-	--	3.8	-	%	
Thermal Resistance						
A. T260	-	--	15	-	Minutes	2.4.24.1
B. T288	-	--	2	-	Minutes	

PREPREG(IT-150BS)				
	Typical Value	Specification	Units	Test Method
1. Shelf Life, minimum (Condition 1/Condition 2)	Meet requirement	180/90	Days	AABUS
2. Volatile content maximum	0.3	0.75	%	2.3.19
*AABUS = As agreed upon between user and supplier.				

Recommended Press Cycle For IT150