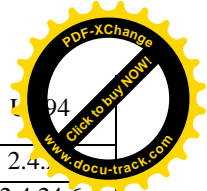


Features

- Multifunctional Epoxy Resin
- Tg > 175 °C (DSC)
- Low Z-axis Coefficient of Thermal Expansion
- Excellent Dimensional Stability and heat resistance
- Low Water Absorption
- Good Drilling Properties
- Processing Like IT140
- UL 94 V-0
- AOI and UV blocking characteristic

Properties

ITEQ Laminate/ Prepreg : IT-180TC / IT-180BS						
IPC-4101B Spec /24						
LAMINATE(IT-180TC)						
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]	0.88(5.0)	0.70(4.0)	0.88(5.0)	0.70(4.0)	N/mm (lb/inch)	2.4.8 2.4.8.2 2.4.8.3
B. Standard profile copper foil	1.23(7.0)	0.80 (4.57)	1.40(8.0)	1.05 (6.00)		
1. After Thermal Stress	1.05(6.0)	0.70 (4.00)	1.23(7.0)	0.70 (4.00)		
2. At 125°C [257 F]						
Volume Resistivity, minimum						
A. C-96/35/90	3.0x10 ⁶	10 ⁶		---	MΩ-cm	2.5.17.1
B. After moisture resistance	-	---	3.0x10 ⁷	10 ⁴		
C. At elevated temperature E-24/125	5.0x10 ⁷	10 ³	1.0x10 ⁸	10 ³		
Surface Resistivity, minimum						
A. C-96/35/90	3.0x10 ⁶	10 ⁴		---	MΩ	2.5.17.1
B. After moisture resistance	---	---	3.0x10 ⁶	10 ⁴		
C. At elevated temperature E-24/125	4.0x10 ⁷	10 ³	4.0x10 ⁷	10 ³		
Moisture Absorption, maximum		-	0.12	0.8	%	2.6.2.1
Dielectric Breakdown, minimum	-	-	60	40	kV	2.5.6
Permittivity at 1 MHz, maximum (Laminate & Prepreg as laminated)	4.5	5.4	4.7	5.4	---	2.5.5.
Loss Tangent at 1 MHz, maximum (Laminate & Prepreg as laminated)	0.018	0.035	0.018	0.035	---	2.5.5.
Flexural Strength, minimum						
A. Length direction	-	---	580(84,300)	415 (60,190)	N/mm ² (lb/in ²)	2.4.4
B. Cross direction	-	---	450(65,400)	345 (50,140)		
Arc Resistance, minimum	125	60	125	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



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Flammability, (Laminate & Prepreg as laminated)	V-0	V-1	V-0	V-1	Rating	2.4.194
Glass Transition Temperature	180	150 - 200	180	150 - 200	?C	2.4.194
Decomposition Temperature		--	350	-	?C	2.4.24.6 (5% wt loss)
Z-Axis CTE						
A. Alpha 1	-	--	50	-	PPM/?C	2.4.24
B. Alpha 2	-	--	250	-	PPM/?C	
C. 50 to 260 Degrees C	-	--	3.0	-	%	
Thermal Resistance						
A. T260	-	--	>60	-	Minutes	2.4.24.1
B. T288	-	--	>20	--	Minutes	

PREPREG(IT-180BS)

	Typical Value	Specification	Units	Test Method
1. Shelf Life, minimum (Condition 1/Condition 2)	Meet requirement	180/90	Days	AABUS
2. Volatile content maximum	0.5	1.5	%	2.3.19

*AABUS = As agreed upon between user and supplier.

Recommended Press Cycle For IT180

(a) Cold Press Cycle

(b) Hot Press Cycle



Suggestion:

1. Heating rate of material between 80°C and 140°C is 1.8~2.3°C/min
2. Curing time: 180°C and above for >100min