

IPC-4101 /21 UL - File Number E41625

Isola offers the ED130UV epoxy laminate to meet the requirements of developing printed circuit boards using UV blocking materials.

PRODUCT FEATURES

Industry Recognition

- UL File Number: E41625

PRODUCT AVAILABILITY

Standard Material Offering: Laminate

- Available in full size sheet or panel form

Copper Foil Type

- HTE Grade 3
- RTF (Reverse Treat Foil)

Copper Weight

- ½ to 2 oz (18 to 70 µm) available

These grades utilize a difunctional epoxy resin core with modified tetrafunctional epoxy face plies to provide for Ultraviolet (UV) blocking, and also fluorescence when using Automated Optical Inspection (AOI).

PRODUCT ATTRIBUTES



TYPICAL MARKET APPLICATIONS



ORDERING INFORMATION:

Contact your local sales representative or contact info@isola-group.com for further information.

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Typical Values Table

Property		Typical Value	Units	Test Method
			Metric (English)	IPC-TM-650 (or as noted)
Glass Transition Temperature (Tg) by DSC		135	°C	2.4.25C
Time to Delaminate by TMA (Copper removed)	T260	10	Minutes	2.4.24.1
Z-Axis CTE	50 to 260°C, (Total Expansion)	0.017	%	2.4.24C
X/Y-Axis CTE	Pre-Tg	13	ppm/°C	2.4.24C
Thermal Stress 10 sec @ 288°C (550.4°F)	A. Unetched B. Etched	Pass	Pass Visual	2.4.13.1
Dk, Permittivity	A. @ 100 MHz	4.7	—	2.5.5.3
	B. @ 500 MHz	4.35		2.5.5.3
	C. @ 1 GHz	4.34		2.5.5.9
Df, Loss Tangent	A. @ 100 MHz	0.020	—	2.5.5.3
	B. @ 500 MHz	0.015		2.5.5.3
	C. @ 1 GHz	0.016		2.5.5.9
Volume Resistivity	A. C-96/35/90 B. After moisture resistance C. At elevated temperature	—	MΩ-cm	2.5.17.1
Surface Resistivity	A. C-96/35/90 B. After moisture resistance C. At elevated temperature	—	MΩ	2.5.17.1
Dielectric Breakdown		55	kV	2.5.6B
Arc Resistance		100	Seconds	2.5.1B
Comparative Tracking Index (CTI)		3 (175-250)	Class (Volts)	UL 746A ASTM D3638
Peel Strength	1 oz. EDC foil	9.0 (161)	N/mm (lb/inch)	2.4.8C
Flexural Strength	A. Length direction	80.0	ksi	2.4.4B
	B. Cross direction	60.0		
Tensile Strength	A. Length direction	50.0	ksi	ASTM D3039
	B. Cross direction	40.0		
Young's Modulus	A. Length direction	3500	ksi	ASTM D790-15e2
	B. Cross direction	3010		
Poisson's Ratio	Length direction	0.136	—	ASTM D3039
Flammability (Laminate & laminated prepreg)		V-0	Rating	UL 94
Relative Thermal Index (RTI)		130	°C	UL 796

NOTES

Visit our site <http://www.isola-group.com> for more details.

Revisions:

A: Initial release - 4/17

B: Corrected units for Flexural and Tensile Strength - 8/18

C: Change MOT to RTI 5/19

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