



ED130UV UV Blocking Epoxy Laminate

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

www.isola-group.com

ORDERING INFORMATION:

Contact your local sales representative or visit www.isola-group.com for further information.

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UV Blocking Epoxy Laminate

ED130UV

Data Sheet

Tg 135
Dk 4.35, Df 0.017
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Features

- UV Blocking and AOI Fluorescence
 - ▶ High throughput and accuracy during PCB fabrication and assembly
- Industry Standard FR-4
 - ▶ Meets a broad range of thermal and electrical requirements
- Consistency
 - ▶ Processing characteristics consistent with industry FR-4 materials
 - ▶ Uses the highest quality woven E-glass, copper foils and resins available in the industry
- Core Material Standard Availability
 - ▶ Thickness: 0.031", 0.059"/ 0.062", 0.093" and 0.125" (0.8 mm,)
 - ▶ Available in full size sheet or panel form
- Copper Foil Type Availability
 - ▶ RTF (Reverse Treat Foil)
 - ▶ Standard HTE Grade 3
- Industry Approvals
 - ▶ IPC-4101A /21
 - ▶ UL - File Number E41625

ED130UV Specifications

Property		Typical Values			
		Typical Value	Specification	Units	Test Method
				Metric (English)	IPC-TM-650 (or as noted)
Glass Transition Temperature (Tg) by DSC		135	110-150	°C	E-2/105
T260		10	–	Minutes	Condition A
CTE	A. X-axis	14	–	ppm/°C	Ambient to Tg Ambient to Tg Ambient to 288°C
	B. Y-axis	13	–		
	C. Z-axis	170	–		
Thermal Stress 10 sec @ 288°C (550.4°F)		N/A	Pass Visual	Rating	Condition A
Thermal Stress 10 sec @ 288°C (550.4°F)		>120	–	Seconds	E-2/105
Dk, Permittivity	A. @ 100 MHz (2 Fluid Cell)	4.7	5.4	–	C-24/23/50
	B. @ 500 MHz (HP4291)	4.35	–		
	C. @ 1 GHz (HP4291)	4.34	–		
Df, Loss Tangent	A. @ 100 MHz (2 Fluid Cell)	0.020	0.035	–	C-24/23/50
	B. @ 500 MHz (HP4291)	0.015	–		
	C. @ 1 GHz (HP4291)	0.016	–		
Volume Resistivity		8.0x10 ⁷ 2.0x10 ⁷	1.0x10 ⁵	MΩ-cm	Condition F E-24/125
Surface Resistivity		2.0x10 ⁵ 1.0x10 ⁶	1.0x10 ⁵	MΩ	Condition F E-24/125
Dielectric Breakdown		55	40	kV	D-48/50
Arc Resistance		100	60	Seconds	2.5.1
Comparative Tracking Index (CTI)		175-250 3	– –	Class (Volts) PCL-UL	ASTM D-36/38-35 UL-746A
Peel Strength (Standard 1 oz.)		9.0 (161) 9.0 (161)	6 (1.05) 4 (70)	lbs/in (Kg/M)	After Thermal Stress E-1/125
Flexural Strength	A. Lengthwise direction	80.000 (552)	60.190 (415)	lb/inch ² N/mm ²	Condition A
	B. Crosswise direction	60.000 (414)	50.040 (345)		
Wrap & Twist		0.5	–	%	Condition A
Tensile Strength	A. Lengthwise direction	50.000	–	lb/inch ²	Condition A
	B. Crosswise direction	40.000	–		
Modulus of Elasticity		0.25	0.35	%	D-24/23
Young's Modulus	A. Lengthwise direction	3.5x10 ⁶	–	lb/inch ²	Condition A
	B. Crosswise direction	3.0x10 ⁶	–		
Taylor's Modulus	A. Lengthwise direction	2.7x10 ⁶	–	lb/inch ²	Condition A
	B. Crosswise direction	2.4x10 ⁶	–		
Poisson's Ratio	Lengthwise direction	0.136	–	–	Condition A
Flammability		V-0	V-1	Rating	UL 94

The data, while believed to be accurate and based on analytical methods considered to be reliable, is for information purposes only. Any sales of these products will be governed by the terms and conditions of the agreement under which they are sold.