

## ISOLA LAMINATE SYSTEMS

### Product and Solutions Offering

Isola Laminate Systems' broad range of laminate, prepreg and foil products and solutions includes:

### ED130UV

#### UV Blocking Epoxy Laminate

Isola Laminate Systems offers ED130UV epoxy laminate to meet the printed circuit board's requirements for UV blocking materials. These grades utilize a difunctional epoxy resin core with modified tetrafunctional epoxy face plies to provide for ultraviolet blocking, and also fluorescence when using automated optical inspection (AOI).

ED130UV is specially formulated for single and double-sided circuitry applications.

#### Performance and Processing Advantages

- **Industry Standard FR-4**  
Meets a broad range of thermal and electrical requirements
- **AOI Fluorescence and UV Blocking**  
Increased throughput and accuracy during fabrication and assembly
- **Consistency**  
Processing characteristics consistent with industry FR-4's  
Uses the highest quality woven E-glass, copper foils and resins available to the industry today

#### Purchasing Information

- **Industry Approvals**  
IPC 4101/21  
UL Recognized FR-4, UL File Number E41625  
*(Part of Isola's UL FR-4 Family)*  
BSI-*pending*  
CSA-*pending*
- **Standard Availability**  
**Thicknesses:** 0.031" [.8 mm] to 0.125" [3.2 mm]  
Available in sheet or panel form  
**Copper Foil Cladding:** 1/2, 1, & 2 oz.

## Ordering Information

Contact your local sales representative or the Inside Sales Department in La Crosse, WI.

Phone: 1-800-845-2904 or  
608-784-6070  
Fax: 1-800-344-1825 or  
608-791-2428

Isola Laminate Systems Corp.  
230 North Front Street  
La Crosse, WI 54601

For further information visit  
[www.isolalaminatesystems.com](http://www.isolalaminatesystems.com)

## EDI30UV Typical Laminate Properties, 0.059" [1.5mm]

<b>PROPERTY</b>	<b>UNITS</b>	<b>IPC 4101</b>	<b>EDI30UV VALUE</b>	<b>CONDITIONING</b>
Thickness	inches	1.5	0.059	—
	mm	[≥0.78]	[1.5]	—
Construction	—	—	8-7628	—
Retained Resin	%	—	44	—
<b>Thermal</b>				
Tg, min. (DSC)	°C	110	135	—
CTE - x-axis	ppm/°C	—	14	Ambient to Tg
y-axis	ppm/°C	—	13	Ambient to Tg
z-axis	ppm/°C	—	175	Ambient to 288°C
Solder Float, 288°C	seconds	—	>120	Condition A
<b>Electrical</b>				
Permittivity (DK), max. @				
1 MHz	—	5.4	4.7	C-24/23/50
500 MHz	—	—	4.35	C-24/23/50
1 GHz (HP4291)	—	—	4.34	C-24/23/50
Loss Tangent (DF), max. @				
1 MHz	—	0.035	0.020	C-24/23/50
500 MHz	—	—	0.017	C-24/23/50
1 GHz (2 Fluid Cell)	—	—	0.016	C-24/23/50
Surface Resistivity, min.	megohms	1×10 <sup>4</sup>	2×10 <sup>5</sup>	Condition F
	megohms	1×10 <sup>3</sup>	1×10 <sup>8</sup>	E-24/125
Volume Resistivity, min.	megohms-cm	1×10 <sup>6</sup>	8×10 <sup>7</sup>	Condition F
	megohm-cm	1×10 <sup>3</sup>	2×10 <sup>7</sup>	E-24/125
Dielectric Breakdown, min.	kV	40	55	D-48/50
Arc Resistance, min.	seconds	60	100	—
Comparative Tracking Index	PLC-UL	—	3	—
<b>Physical</b>				
Peel Strength, min. - 1 oz.	lb/in [Kg/M]	—	9.0 [161]	Condition A
		5.9 [105]	9.0 [161]	After Thermal Stress
		3.9 [70]	9.0 [161]	E-1/125
Flexural Strength, min.				
LW	psi [KG/M <sup>2</sup> ]	60,000	80,000	Condition A
		[4.23×10 <sup>7</sup> ]	[5.63×10 <sup>7</sup> ]	—
CW	psi [KG/M <sup>2</sup> ]	50,000	60,000	Condition A
		[3.52×10 <sup>7</sup> ]	[4.23×10 <sup>7</sup> ]	—
Warp & Twist	%	—	0.5	Condition A
Flammability	—	V-0	V-0	UL94
Moisture Absorption, max.	%	0.35	0.25	D-24/23
Tensile Strength				
LW	psi	—	50,000	Condition A
CW	psi	—	40,000	Condition A
Modulus of Elasticity				
Tensile Modulus (Young's)				
LW	psi	—	3.5×10 <sup>6</sup>	Condition A
CW	psi	—	3.0×10 <sup>6</sup>	Condition A
Flexural Modulus (Taylor's)				
LW	psi	—	2.7×10 <sup>6</sup>	Condition A
CW	psi	—	2.4×10 <sup>6</sup>	Condition A
Poisson's Ratio				
LW	—	—	0.136	Condition A
CW	—	—	0.118	Condition A

"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."