

(IPC-4101/24)

尚茂電子材料股份有限公司

ShineMore Technology Materials Co. Website: http://www.shinemore.com.tw

ANSI: FR-4.0 UL FILE: E199230

Version D, Updated: 01/26/2017

General Specification:

Thickness	Copper Cladding	Standard Size		Special Size (on Request)	
inch (mm)	<u>oz</u> (μm)	<u>inch</u>	<u>(mm)</u>	<u>inch</u>	<u>(mm)</u>
0.003 (0.08)	3/8 (12)	36.8 x 48.8	(935 x 1240)	37.0 x 49.0	(941 x 1246)
to	to	40.8 x 48.8	(1035 x 1240)	41.0 x 49.0	(1043 x 1246)
0.125 (3.14)	12 (410)	42.8 x 48.8	(1085 x 1240)	43.0 x 49.0	(1093 x 1246)

Characteristics:

- Multi-functional Epoxy
- E-woven Glass
- HTE Copper Foil

Features:

- UV Blocking and AOI Performance
- Excellent dimensional stability and thickness uniformity
- Superior thermal and chemical resistance
- Excellent electrical and mechanical properties
- Tg \geq 150°C (by DSC)

Applications:

- Computer & Peripheral (1C)
- Communications Telecom (2C)
- Consumer Electronics (3C)
- Instrumentation/ Industry PC/ Medical
- OA Equipment/ Printer etc

Remarks: Not recommended for Lead-free process.

SM-730-5 Laminate Properties:

	Test Items	Units Metric (English)	Test Condition	IPC Spec.	Typical Value	Test Method (IPC-TM-650)
Electrical	Dielectric Constant (1MHz)		C-96/23/50	< 5.4	4.7 - 4.8	2.5.5.2
	Loss Tangent (1MHz)		C-96/23/50	< 0.035	0.018 - 0.025	2.5.5.2
	Volume Resistivity	MΩ -cm	C-96/23/50	> 10 ⁶	> 10 ⁷	2.5.17.1
	Surface Resistivity	ΜΩ	C-96/23/50	> 10 ⁴	> 10 ⁶	2.5.17.1
Physical	Warp & Twist	%	_	< 1.0	< 0.3	2.4.4
	Moisture absorption	%	E-24/50+d-24/23	< 0.8	< 0.15	2.6.2.1
	Peel strength	N/mm (lb/in)	As Received	0.7 (4.0)	1.75 - 2.10 $(10 - 12)$	2.4.8
			After Solder	0.7 (4.0)	1.40 -1.75 (8 – 10)	2.4.8
Thermal	Glass Transition Temp	°C	TMA	-	>145	2.4.24
			DSC	>150	>150	2.4.25
	CTE (Z axis)	ppm/°C	>Tg	_	<300	2.4.24
	Thermal stress	sec	288°C Solder dipping	> 10	>120	2.4.13.1
	Flammability		A&E-24/125	min. V-0	V-0	UL 94

* Specification Sheet: IPC-4101/24

Ordering Information :

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NOTE:

- 1. Typical Values are for information purpose only.
- 2. Any sale of these products will be governed by the terms and conditions of the agreement under which they are sold.