

**KB-6160 (ANSI: FR-4)****Thin Core Laminate for Multilayer 多層電路板用薄內層板材****特點**

- 優異的尺寸穩定性和介電性能
- 優良的耐熱性能和機械性能
- 高速鑽孔時產生的樹脂污垢少
- 優異的 UV 阻擋功能和 AOI 螢光特性
- 符合 IPC-4101A 的規範要求

**Features**

- Excellent dimensional stability and electric strength
- Excellent heat resistance and mechanical properties
- Less resin smear in high speed drilling
- UV Blocking and AOI compatible
- IPC-4101A specification is applicable .

**應用領域**

- 移動電話，電腦，檢測設備，錄影機，軍用裝備，導向系統等

**Application**

- Mobile phone, Computer, Instrumentation, Video recorders, Military hard-ware, Guidance systems

**Construction 配布工藝**

Thickness 厚度		Construction 结构	Thickness 厚度		Construction 结构
mm	mil		mm	mil	
0.05	2	1 × (106)	0.46	18.1	2 × (7628) + 1 × (1080)
0.076	3	1 × (1080)	0.48	18.9	2 × (7628) + 1 × (2116)
0.10	4	1 × (2313)	0.51	20.0	2 × (7628) + 1 × (2116)
0.125	5	1 × (2116)	0.56	22.0	3 × (7628)
0.15	5.9	1 × (1506)	0.61	24.0	3 × (7630)
0.18	7.1	1 × (7628)	0.64	25.2	3 × (7630)
0.20	8	1 × (7628)	0.66	26.0	2 × (7628) + 2 × (2116)
0.25	9.8	2 × (2116)	0.71	28.0	4 × (7628)
0.30	11.8	2 × (1506)	0.79	31.1	4 × (7628)
0.33	13	2 × (1506)	0.99	39.0	5 × (7628)
0.35	13.8	2 × (7628)	1.02	40.2	5 × (7628)
0.36	14	2 × (7628)	1.08	42.5	6 × (7628)
0.41	16.1	2 × (7628)	1.19	47.0	6 × (7628)

The thickness listed above is not including copper's thickness. 以上厚度不含銅厚

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#### General Properties 一般特性

Test Item 測試項目	Unit 單位	Test Method (IPC-TM-650) 測試方法	Test Condition 處理條件	Spec (IPC-4101A) 規格值	Typical Value 典型值
Peel Strength (10Z) 銅箔剝離強度	kgf/cm	2.4.8	A	≥1.43	1.75
			Float 288°C/ 10Sec	≥1.40	1.70
Thermal stress 熱應力	Sec	2.4.13.1	Float288°C/unetched	≥60	180
Bow / Twist 彎弓度/翹曲度	%	2.4.22.1	A	≤1.0	0.17 / 0.13
Flammability 燃燒性	Rating	UL94	UL94	UL94V-0	V-0
Glass Transition (Tg) 玻璃化转变温度	°C	2.4.25	E-2/150 (DSC)	≥130	138
Surface Resistance 表面電阻	MΩ	2.5.17.1	C-96/35/90	≥1.0×10 <sup>4</sup>	1.0×10 <sup>7</sup>
Volume Resistance 體積電阻	MΩ-c m	2.5.17.1	C-96/35/90	≥1.0×10 <sup>6</sup>	1.0×10 <sup>9</sup>
Dielectric Constant 介電常數	—	2.5.5.2	Etched/@1 MHZ	≤5.4	4.4
Loss Tangent 介質損耗	—	2.5.5.2	Etched/@1 MHZ	≤0.035	0.022
Arc Resistance 耐電弧性	Sec	2.5.1	D-48/50+D-0.5/23	≥60	125
Moisture Absorption 吸水率	%	2.6.2.1	D-24/23	≤0.35(≥0.51)	0.25
				≤0.80(<0.51)	0.20
Comparative Tracking Index 相比漏電起痕指數	V	IEC 112	Etched/0.1% NH <sub>4</sub> Cl	AABUS	175
Dimensional Stability 尺寸穩定性	ppm	3.9.1.2	Warp	±300	-90
			Fill		-110

Remarks: Specimen Thickness:0.51mm 樣品厚度: 0.51mm (不含銅厚)

A=Maintain original shape,do not make handling 保持原樣,不作處理

C=Temperature and humidity conditioning 恒溫恒濕空氣中處理

E=Temperature conditioning 恒溫空氣中處理

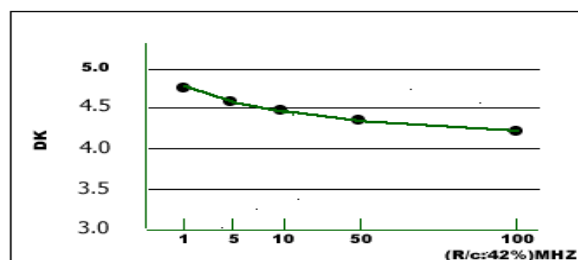
D=Temperature conditioning immersion in distilled water. 恒溫水中處理

#### Speciality Chart 板材特性圖

##### Dimensional stability 尺寸穩定性



##### Dielectric constant 介電常數



#### Purchasing Information / 採購資訊

Base colour 基板顏色	Thickness 厚度	Copper Cladding 銅箔厚度	Regular Size (mm) 常規尺寸
黃色 (UV block)	0.05mm ~ 1.2mm	18μm 35μm 70μm.	1020*1220mm (40"*48") 1067*1220mm (42"*48") 915*1220mm (36"*48") 1041*1245mm (41"*49")

Note: Other sheet size and thickness could be available upon request. 可根據客戶要求提供其他尺寸和厚度。