

### KB-6160 (ANSI: FR-4)

#### 覆銅箔環氧玻纖布層壓板

#### 特點

- 相容紫外光阻擋及光學自動檢查功能,可提高 PCB 生產效率與準確性
- 耐漏電起痕指數 (CTI150V/175V/300V/600V)
- 優良的耐熱性能和機械性能
- 符合 IPC-4101A 的規範要求

#### Features

- UV Blocking and AOI (automatic optical inspection) compatible, so as to increase productivity and accuracy.
- CTI value 150V/175V/ 300V / 600V
- Excellent heat resistance and mechanical properties
- IPC-4101A specification is applicable .

#### General Properties 一般特性

Item	Unit	Test Method (IPC-TM-650)	Test Condition	Spec (IPC-4101A)	Typical Value
Peel Strength (1OZ)	kgf/cm	2.4.8	A	≥1.43	1.75
			Float 288°C / 10Sec	≥1.40	1.70
Thermal stress	Sec	2.4.13.1	Float 288°C/unetched	≥60	180
Bow / Twist	%	2.4.22.1	A	≤ 1.0	0.17 / 0.19
Flexural Strength	N/mm <sup>2</sup>	2.4.4	Warp	≥415	565
			Fill	≥345	416
Flammability	Rating	UL94	E-24/23	UL94 V-0	V-0
Glass Transition (Tg)	°C	2.4.25	E-2/105 DSC	≥130	135
Surface Resistance	MΩ	2.5.17.1	C-96/35/90	≥1.0×10 <sup>4</sup>	1.0×10 <sup>7</sup>
Volume Resistance	MΩ-cm	2.5.17.1	C-96/35/90	≥1.0×10 <sup>6</sup>	1.0×10 <sup>9</sup>
Dielectric Constant	—	2.5.5.2	Etched/@1 MHZ	≤5.4	4.5
Loss Tangent	—	2.5.5.2	Etched/@1 MHZ	≤0.035	0.022
Arc Resistance	Sec	2.5.1	D-48/50+D-0.5/23	≥60	125
Moisture Absorption	%	2.6.2.1	D-24/23	≤0.35(min0.51)	0.10
				≤0.80(max0.51)	0.20
Z-Axis Expansion	ppm/°C	2.4.24	E-2/105 TMA	—	50/280
Comparative racking Index	V	IEC 112	Etched/0.1% NH <sub>4</sub> Cl	AABUS	150/175 300/600

Remarks: 可提供不同 CTI 等級的板材 The CCL may offer different CTI grade.

Specimen Thickness: 1.6 mm 樣品厚度: 1.6 mm

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

C= Temperature and humidity conditioning 在恒溫恒濕的空氣中處理

E=Temperature conditioning 在恒溫的空氣中處理;

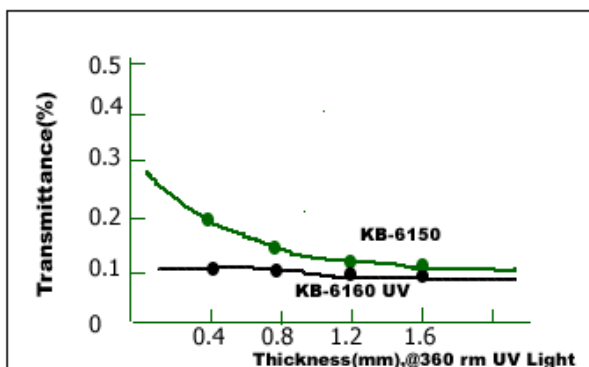
D= Temperature conditioning immersion in distilled water. 浸在恒溫的水中處理

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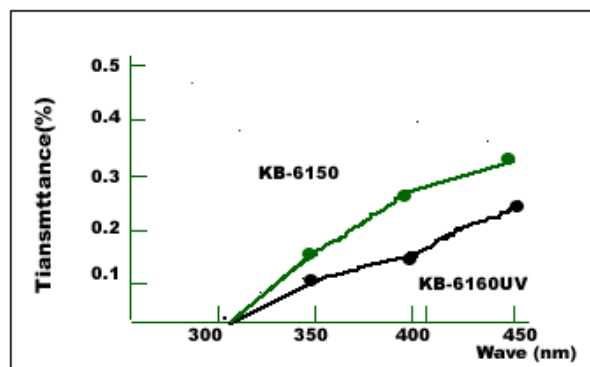
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#### Speciality Chart 板材特性圖

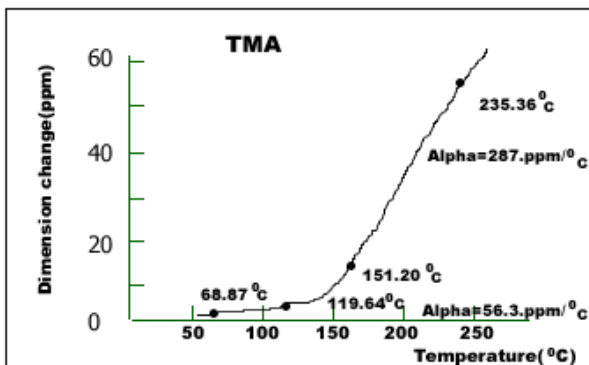
UV blocking (thickness) UV 阻擋



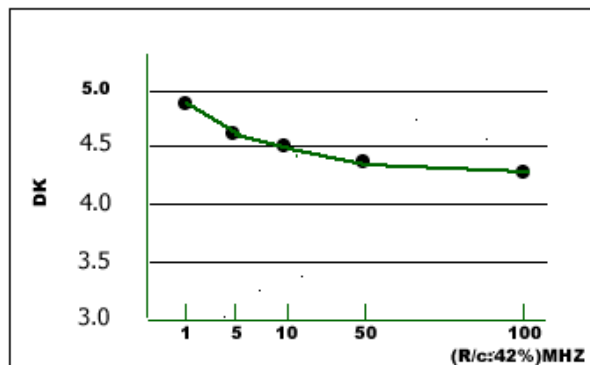
UV blocking (wave / UV-3100)



Thermal expansion of Z-direction (test by TMA)



Dielectric constant 介電常數



#### 應用領域/Applications

- 電腦及週邊設備、通訊設備、儀器儀錶、辦公自動設備等
- Computer, communication equipment instrumentation, OA equipment, etc.

#### 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	CTI Value
黃色 (UV blocking)	0.05mm ~ 3.5mm	18μm 35μm 70μm.	1020*1220mm (40 " *48 " ) 1067*1220mm (42 " *48 " ) 915*1220mm (36 " *48 " ) 1041*1245mm (41 " *49 " )	150V/175V 300V/600V

Note: Other sheet size and thickness could be available upon request.