

## KB-6160/6160C (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 value150V/175V/ 300V / 600V
- Excellent heat resistance and mechanical properties
- IPC-4101A specification is applicable .

## 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 (1OZ) 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 / 0.19
Flexural Strength 抗彎強度	N/mm <sup>2</sup>	2.4.4	Warp	≥415	565
			Fill	≥345	416
Flammability 燃燒性	Rating	UL94	UL94	UL94 V-0	V-0
Glass Transition (Tg) 玻璃化轉變溫度	°C	2.4.25	E-2/105 DSC	≥130	135
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-cm	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	4.5
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)	0.10
				≤0.80(<0.51)	0.20
Z-Axis Expansion Z-軸熱膨脹系數	ppm/ °C	2.4.24	E-2/105 TMA	—	55/285
Comparative Tracking Index 相比漏電起痕指數	V	IEC 112	Etched/0.1% NH <sub>4</sub> Cl	AABUS	150/175 300/600

Remarks: 可提供不同 CTI 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;

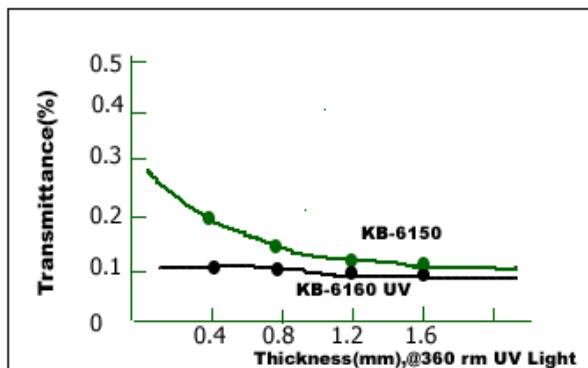
D= Temperature conditioning immersion in distilled water. 浸在恒溫的水中處理

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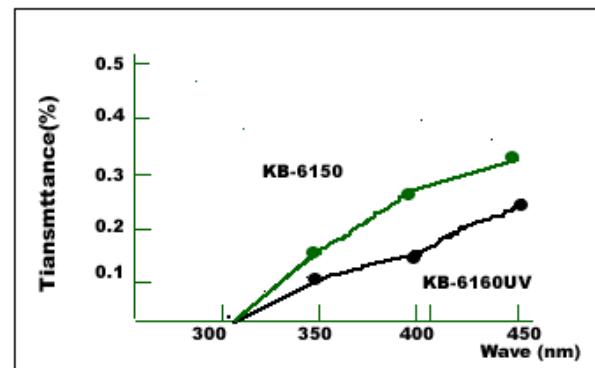
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## Speciality Chart 板材特性圖

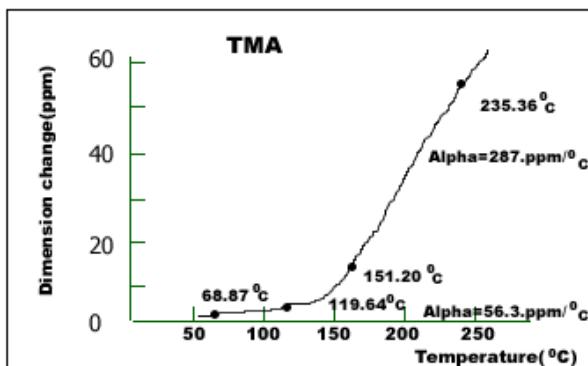
UV blocking (thickness) UV 阻擋



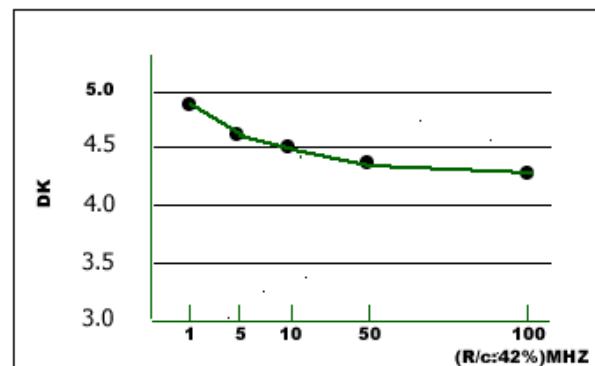
UV blocking (wave / UV-3100)



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 CTI 值
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.

可根據客戶要求提供其他尺寸和厚度。