

KB-2151 (ANSI : FR-2/JIS PP3F)

覆銅箔酚醛樹脂紙基層壓板

特點

- 耐漏電痕跡性優越(600V 以上)
- 成本低而使用範圍廣
- 優異的耐濕、熱性
- 適合之沖孔溫度為室溫~70°C
- 彎曲率、扭曲率小且穩定
- 尺寸穩定性優越

Features

- High CTI value(over 600V)
- Low cost but with wide range of application.
- Superior heat and humidity resistance
- Suitable for punching at ambient~70°C
- warpage and twist are small and stable.
- Excellent dimensional stability

General Properties 一般特性

Test Item 測試項目	Unit 單位	Test Condition 處理條件	Testing Method 測試方法	Specification 規格值	Typical Value 典型值
Solder Resistance 耐浸焊性(260°C)	Sec	A	JIS C 6481	≥10	20~40
Heat Resistance 耐熱性	---	130°C 30min	JIS C 6481	No Change 無異常	No Change 無異常
Peel Strength(Copper Foil 35 μm) 銅箔剝離強度(35 μm 銅箔)	Kgf/cm	A 260°C/5Sec	JIS C 6481	≥12	18-20 17-19
Flexural Strength 屈曲強度	Lengthwise 縱向	A	JIS C 6481	≥8	13-15
	Crosswise 橫向			≥8	13-14
Volume Resistivity 體積阻抗係數	Ω-cm	C-96/20/65 C-96/20/65+C-96/40/90	JIS C 6481	5×10 ¹⁰ 5×10 ⁹	1.0×10 ¹² ~10 ¹³ 1.0×10 ¹² ~10 ¹³
Surface Resistance 表面抗阻	Adhesive Side 粘接劑面	C-96/20/65 C-96/20/65+C-96/40/90	JIS C 6481	1×10 ¹² 1×10 ¹¹	1.0×10 ¹² ~10 ¹³ 1.0×10 ¹¹ ~10 ¹²
	Laminate Side 積層板面			1×10 ¹¹ 5×10 ⁸	1.0×10 ¹¹ ~10 ¹² 1.0×10 ¹⁰ ~10 ¹¹
Insulation Resistance 絕緣抗阻	Ω	C-96/20/65 C-96/20/65+D-2/100	JIS C 6481	1×10 ¹¹ 1×10 ⁸	1.0×10 ¹¹ ~10 ¹³ 1.0×10 ⁹ ~10 ¹⁰
Chemical Resistance 耐化學性	---	3% NaOH 40°C 3min 3% 氫氧化鈉 40°C 3 分鐘	JIS C 6481	No change 無異常	No Change 無異常
		Boild in trichloroethylene for 3 min 三氯乙稀中煮沸 3 分鐘	JIS C 6481	No change 無異常	No Change 無異常
Water Absorption 吸水性	%	E-24/50+D-24/23	JIS C 6481	≤0.75	0.5~0.7
Flammability 阻燃性	Sec	A	UL94	94V-0	94V-0
Dielectric Constant (1 MHz) 介電常數 (1 MHz)	---	C-96/20/65	JIS C 6481	≤5.0	3.5~5.0
		C-96/20/65+D-24/23		≤5.3	4.0~5.5
Dissipation Factor 介質損耗因數	---	C-96/20/65	JIS C 6481	≤0.04	0.020~0.035
		C-96/20/65+D-24/23		≤0.05	0.030~0.045
CTI Value CTI 值	V	0.1% NH ₄ Cl	IEC 112	---	≥600
Punching Temperature 沖孔溫度	°C	A	WI-QA-002	40~60	Ambient~70

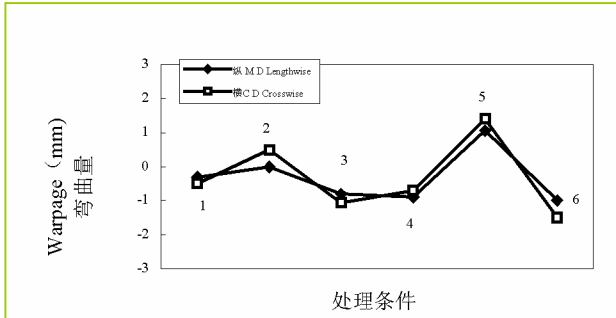
Remarks: Typical values for reference only 注: 典型值只作參考 Stand values according to JIS-C-6485 規格值參照 JIS-C-6485

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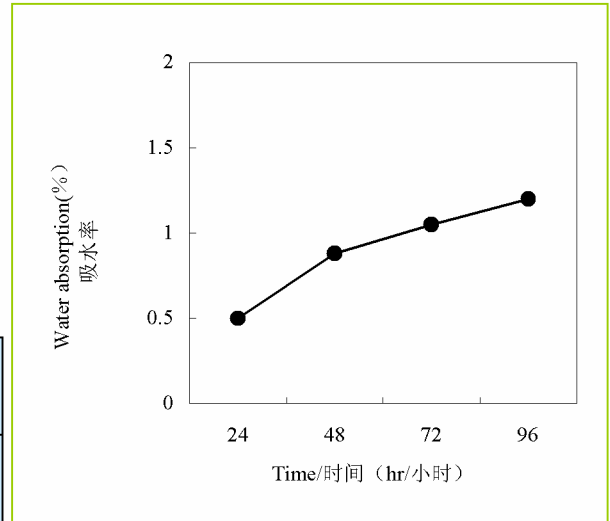
Speciality Chart 板材特性圖

Warpage of PCB during processing/印製電路板
加工時彎曲度(Thickness 1.6mm single side)

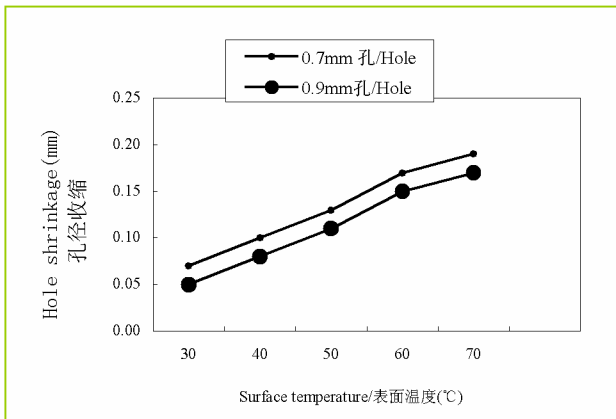


1. Feeding 投料	2. Heating at 130°C for 90 sec 130°C 下加熱 90 秒	3. Etching. Rinsing. Drying 蝕刻. 清洗. 烘乾
4. Heating at 200°C for 30 sec 200°C 下加熱 30 秒	5. Punching at 50°C 50°C 下沖孔	6. Soldering at 260 °C for 5sec 260°C 焊錫 5 秒

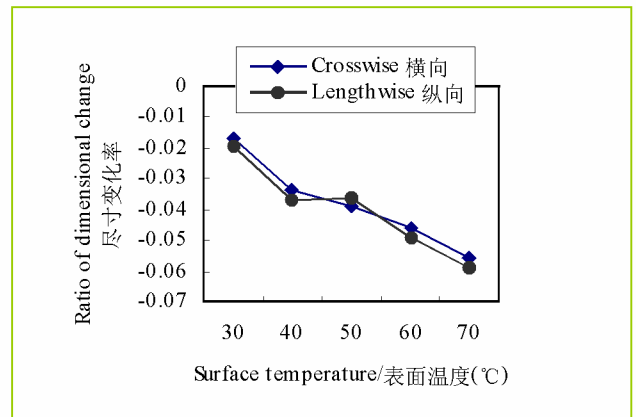
Water absorption 吸水率



Punched hole shrinkage
沖孔後孔徑收縮



Dimensional change of punched PCB
沖孔後之尺寸變化



Purchasing Information / 採購資訊

Type 類型	Thickness 厚度	Copper Cladding 銅箔厚度	Regular Size (mm) 常規尺寸	CTI Value CTI 值
KB-2151 FR-2	0.8mm ~ 1.6mm	18µm 35µm 70µm	1020*1220mm (40" * 48") 1020*1020mm (40" * 40")	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。