

KB-6167 Tg170 FR-4**覆銅箔環氧玻纖布層壓板****特點**

- Tg 170°C (DSC 測試), 低 Z-軸 CTE 值
- 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
- 熱裂解溫度高
- 優良的耐熱性，能滿足無鉛制程要求
- 符合 IPC-4101B 的規範要求

Features

- Tg 170°C (DSC Testing), low Z-axis expansion
- UV Blocking and AOI (automatic optical inspection) compatible, so as to increase productivity and accuracy
- High Thermal Delamination
- Excellent heat resistance and appropriate for lead-free assembly
- IPC-4101B 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-4101B) 規格值	Typical Value 典型值
Peel Strength (10Z) 銅箔剝離強度	kgf/cm	2.4.8	A	AABUS	1.30
			Float 288°C/ 10Sec	AABUS	1.25
Thermal stress 熱應力	Sec	2.4.13.1	Float 288°C/unetched	≥60	180
Flammability 燃燒性	Rating	UL94	UL94	UL94 V-0	V-0
Glass Transition (Tg) 玻璃化转变温度	°C	2.4.25	E-2/105 DSC	≥170	178
Surface Resistance 表面電阻	MΩ	2.5.17.1	C-96/35/90	≥1.0×10 ⁴	1.0×10 ⁷
Volume Resistance 體積電阻	MΩ-cm	2.5.17.1	C-96/35/90	≥1.0×10 ⁹	1.0×10 ⁹
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	0.018
Arc Resistance 耐電弧性	Sec	2.5.1	D-48/50+D0.5/23	≥60	125
Z-Axis Expansion Z-軸熱膨脹係數	ppm/°C	2.4.24	E-2/105 TMA	≤60/300	50/270
	%			≤3.0	2.9
TD 熱分解溫度	°C	ASTM D3850 (5%wt loss)	TGA	≥340	357
T-260 260°C分層時間	min	2.4.24.1	TMA	≥30	50
T-288 280°C分層時間	min	2.4.24.1	TMA	≥15	30

Remarks: 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 恒溫恒濕的空氣中處理

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

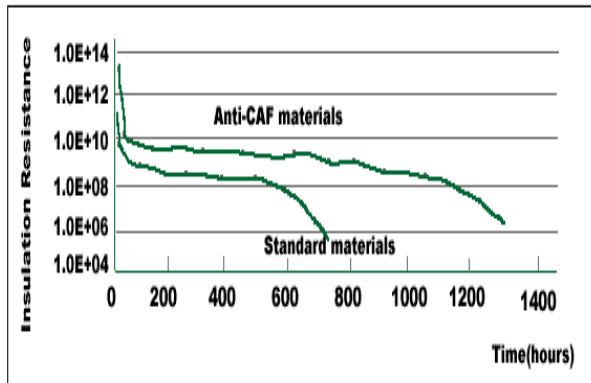
E= Temperature conditioning 恒溫空氣中處理

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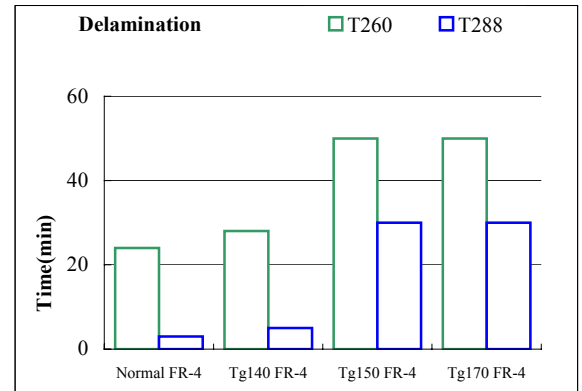
環氧玻纖布覆銅層壓板

Speciality Chart 板材特性圖

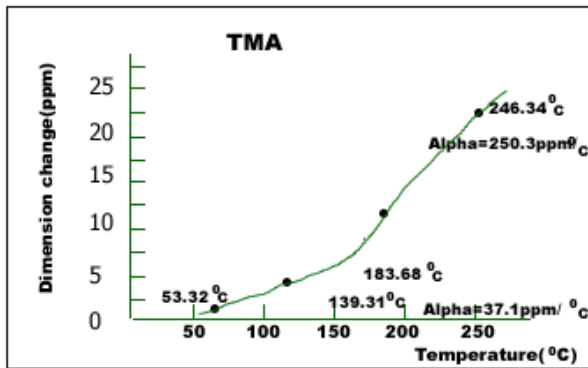
CAF resistance comparison 耐離子遷移



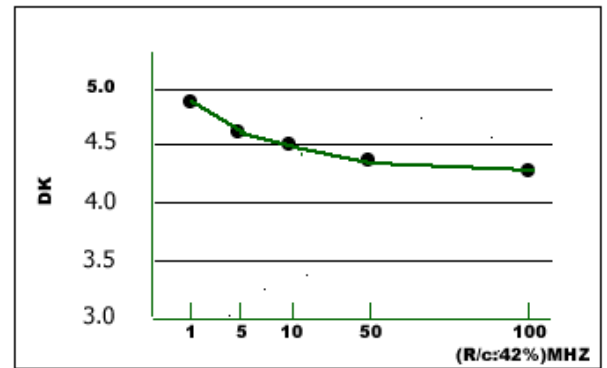
Delamination 分層時間 (test by TMA)



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 常規尺寸
黃色 yellow	0.05mm ~ 3.2mm	18 μ m 35 μ m 70 μ m.	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。