

高頻改質型聚醯亞胺粘結板特性表

High-Frequency Modify PI Bonding Sheet Data-Sheet

一、產品特色(Features)：

- ◆ 低傳輸損耗特性 (Low transmission loss)
- ◆ 卓越的離子遷移特性 (Outstanding performance of ion migration)
- ◆ 良好的可操作性 (Good performance of operability)
- ◆ 優異的耐化金性 (Excellent chemical gold resistance)
- ◆ 適用於無鉛焊錫 (Support lead-free reflow-soldering)

二、產品特性(Characteristics)：

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">離型膜(Releasing film)</td> </tr> <tr> <td style="text-align: center;">高頻改質型聚醯亞胺 MPI</td> </tr> <tr> <td style="text-align: center;">離型紙(Releasing paper)</td> </tr> </table>		離型膜(Releasing film)	高頻改質型聚醯亞胺 MPI	離型紙(Releasing paper)	品質標準 (Quality Index)	特性 Properties	測試方法 (Test Method)
離型膜(Releasing film)							
高頻改質型聚醯亞胺 MPI							
離型紙(Releasing paper)							
		HFBSX25X1					
厚度 (Thickness)	μm	25.0±10%	25.0	APLUS Spec.			
剝離強度 (Peel Strength)	kgf/cm	≥0.8	1.78	IPC-TM650 2.4.9			
溢膠量 (Resin flow)	mm	≤0.20	0.0987	IPC-TM-650 2.3.17.1			
焊錫耐熱性 (Solder resistance)	--	288°C*10s pass	pass	IPC-TM650 2.4.13			
吸水率 (Water Absorption)	(%)	≤3.0	0.09	IPC-TM-650 2.6.2D			
熱膨脹係數 (CTE) α1	ppm/°C	Ref.	312	TMA			
熱膨脹係數 (CTE) α2	ppm/°C	Ref.	654				
熱裂解溫度 (Td 5% Weight Loss)	°C	Ref.	355	TGA			
玻璃轉移溫度 (Tg)	°C	Ref.	71	TMA			
介電常數 (Dielectric constant)	@15 G Hz	≤3.0	2.78	JIS C2565 Cavity Resonator			
介電損失 (Dissipation factor)	@15 G Hz	≤0.008	0.005				
破壞電壓 (Breakdown voltage)	kV/mil	Ref.	3.6	ASTM D149			
離子遷移特性 (Ion migration)	Ω	Ref.	PASS	85°C/85% RH, 50V, 1000 hr			
保存期限(Shelf Life)		≤10°C ; ≤70% RH ; 3 months		APLUS Spec			

※ 產品特性值為代表值，以上資料僅供參考(All data are representative value and not guarantee.)

三、建議熱壓參數(Lamination condition)：

◆傳統壓合參數(Typical lamination)

條件 (Condition)	壓合溫度°C (Temperature of Load)	壓力(單位面積受力)kg/cm ² (Pressure)	壓合時間 min (Time of Load)
升溫段 (Heating Period)	****	15±5	5~20
恆溫段(成型) (Curing Period)	175±5°C	35±5	160~180
降溫段(Cooling Period)	****	15±5	30~40

備註：

1.这些时间和温度是建议作为确定适用于粘接纯胶膜與覆铜板的起始條件。请注意，所使用的设备和电路设计可能會有所不同。

PS: This times and temperature are suggested as a starting point of determining condition suitable for bonding sheet materials to copper Clad laminate. please note that conditions may vary with the equipment used and circuit design.

2.需對貼合銅箔基材需經 135°C*120min 預烘烤后再護貝純膠，(烘烤后銅箔基材在未使用前尽量使用密封袋密封放置避免吸湿且需在 24H 內護背純膠壓合熟化完成).

all of copper must be pretreated by 135 ° C *120 Min, then to Laminate bonding sheet (We suggest pretreated copper before using should in sealing bag to Prevent absorption and to Laminate & aging within 24Hrs)

3.建議 SMT 前對 FPC 進行 135°C,4Hr 烘烤，另烘烤完的 FPC 請在 4Hr 內打件完畢。

We suggest Before SMT FPC pretreated by 135° C *4Hrs and the FPC to use within 4Hrs after pretreated。