

無膠單面板背膠

Resin Coated Adhesiveless Single Side FCCL

I. 主要特性 Features

1. 極佳的撓曲性及剝離強度 Outstanding flexibility and peel strength;
2. 優異的耐熱性和耐化學品性 Excellent thermal resistance and chemical resistance;
3. 良好的尺寸穩定性 Good dimensional stability;
4. 無鹵無銻符合 ROHS 要求 Halogen free and antimony free, meets ROHS requirements

II. 主要性能表 General Properties

Item	Type		IF-2LS 1312T02-R030	Remark			
	Material						
Spec.	PI Film (μm)		12.5	Width 250mm, 500mm Length 100m			
	Copper Foil (μm)		12				
	Adhesive (μm)		30				
Properties	Test Item		Condition	Value	Standard	Test Method	
	Peel Strength (Kgf/cm)	A		180°	>0.6	≥0.6	IPC-TM-650
		B		90°	>0.7	≥0.7	2.4.9
		Chemical Resistance (%)	IPA	Dipping /10min	<6	≤20	IPC-TM-650 2.3.2
	NaOH		<6				
	HCl		<6				
	MIT (times)		MD	0.5Kg/ 0.38R	≥400	Reference	JISC-6471
			TD				
	Water Absorption (%)		D-24/23		<1.2	≤2.0	IPC-TM-650 2.6.2
	Resin Flow (mm)		B		0.08~0.25	Reference	IPC-TM-650 2.3.17.1
	Solder Resistance		288°C/10S		OK	288°C/10S	IPC-TM-650 2.4.13
	Dimensional Stability (%)		MD	Method B	-0.04~0.06	≤±0.08	IPC-TM-650 2.2.4
			TD		-0.06~0.04		
	Volume Resistance (Ω·cm)		C-96/23/65		>2×10 ¹³	≥10 ¹³	IPC-TM-650 2.5.17
	Surface Resistance (Ω)				>2×10 ¹²	≥10 ¹²	
	Insulation Resistance (Ω)		C-96/35/90		>2×10 ⁹	≥10 ⁹	IPC-TM-650 2.6 .3.2
	Dielectric Constant(2GHZ)				<3.4	≤4.0	
Dissipation Factor (2GHZ)		C-24/23/50		<0.020	≤0.04	IPC-TM-650 2.5.5.3	
Tg (°C)		A	25~400°C	329	---	DMA	
		B		42	---	DMA	

注 Note : 1. 剝離強度、溢膠量和耐熱性的測試：Coverlay 與 FCCL 相壓合；

Testing peel strength, solder resistance and resin flow, coverlay is pressed on FCCL;

2. 以上所列數據僅供參考，詳見出貨報告。

Data shown above are nominal values for reference only, for details please refer to COA

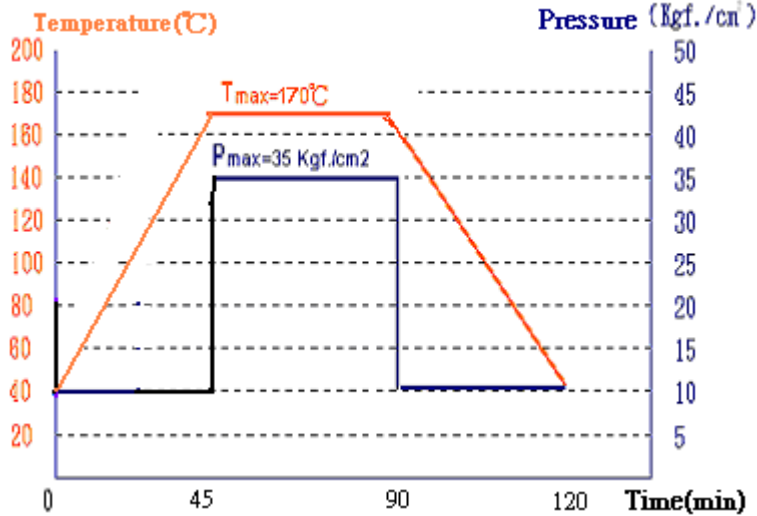
III. 儲存條件 Storage

真空包裝 10°C 以下，濕度 70%RH 以下，儲存 3 個月。 Vacuum Packaging: Lower than 10°C and 70%RH for three months.

IV. 建議壓合程式及熟化程式 *Recommended Press Process and Curing Process*

1. 傳統壓合模式 *Traditional lamination*

Traditional Lamination



Traditional lamination:

Stage I :

Temp: heating from 40°C to 170°C;

Pressure: 10Kgf/cm²;

Time: 45min.

Stage II :

Temp: 170°C;

Pressure: 35Kgf/cm²;

Time: 45min.

Stage III :

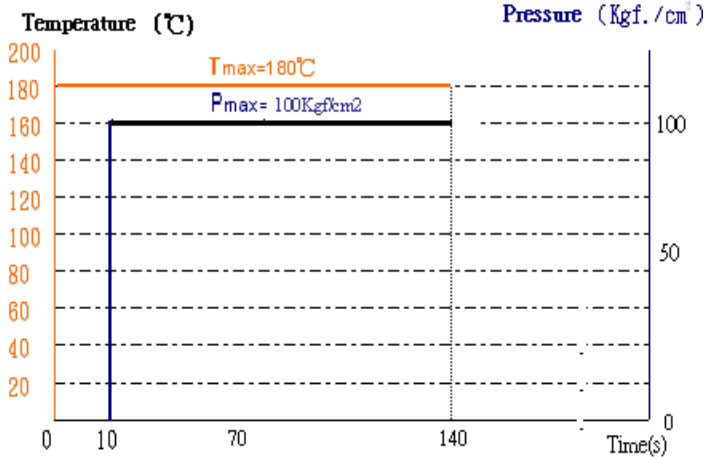
Temp: cooling down from 170°C to 40°C;

Pressure: 10Kgf/cm²;

Time: 30min.

2. 快速壓合模式 *Fast lamination*

Fast Lamination



Fast Lamination :

Stage I : Temp: 180°C;

Pressure: 0Kgf/cm²;

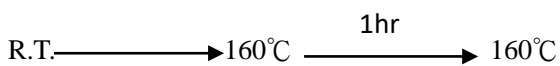
Time: 10sec.

Stage II : Temp: 180°C;

Pressure: 100Kgf/cm²;

Time: 120~150sec.

熟化程式 *Curing Process*



Curing Process :

Stage I :

Temp: heating from R.T. to 160°C;

Stage II :

Temp: maintain 160°C; Time: 60min.