

KB

建滔積層板有限公司
KINGBOARD LAMINATES LTD

香港新界沙田火炭坳背灣街 2-12 號威力工業中心五字樓K座
5/F., Block K, Villiant Industrial Centre, 2-12 Au Pui Wan St., Fo Tan, Shatin, NT, Hong Kong.
TEL : (852) 2605 6493 FAX : (852) 2691 5245 / 2691 0445

PREPREG (ANSI GRADE : FR-4) 半固化片

Description 說明

Kingboard prepregs are E-glass fabrics impregnated with flame retardant epoxy resin and cured to "B" stage under precise temperature and metering control to achieve consistent rheology in the multilayer printed circuit board production.

建滔半固化片是在精確溫度及重量控制下，將阻燃型環氧樹脂浸漬的E級玻璃布固化至"B"階段所得，使其在多層線路板的製造過程中具有穩定的流變特性。

Features 特點

- **Excellent interlayer bonding strength with optimum flow**
層間粘合力好，流膠量合適
- **Consistent dielectric thickness and electrical characteristics**
絕緣層厚度穩定，電氣特性優秀
- **Wide processing window and consistent performance**
操作範圍寬，性能重複性良好

Application 用途

For various multilayer pressing
適用於各種多層板的壓制

PREPREG (ANSI GRADE : FR-4) 半固化片

Standard Packing 標準包裝方式

Each roll is wrapped with stretch film immediately after treating to ensure minimum moisture absorption. On shipment each roll is protected with cushion sheet and sealed hermetically in polyethylene tube. The outer box is reinforced carton box with adequate supports on each end of the roll.

為保證低吸濕率，每一卷半固化片在完成生產後立即用防潮薄膜進行包裝，裝運時用緩衝墊（珍珠棉）進行保護並用防潮薄膜密封，外包裝為兩端加固的紙箱。

Shelf Life 保存期

- For short term (3 months) storage, keep the temperature at lower than 20°C and R.H. lower than 50%.
- For long term (6 months) storage, keep the temperature at lower than 5°C and R.H. lower than 50%.
- After long term storage, it should be normalized in the room temperature for at least 4 hours before use.
- Avoid UV rays or strong lights.
- 短期（3個月）存放，保持溫度低於20°C,相對濕度低於50%
- 長期（6個月）存放，保持溫度低於5°C,相對濕度低於50%
- 長期保存之半固化片，在使用前須于室溫放置4小時以上
- 須防止紫外光及強光照射

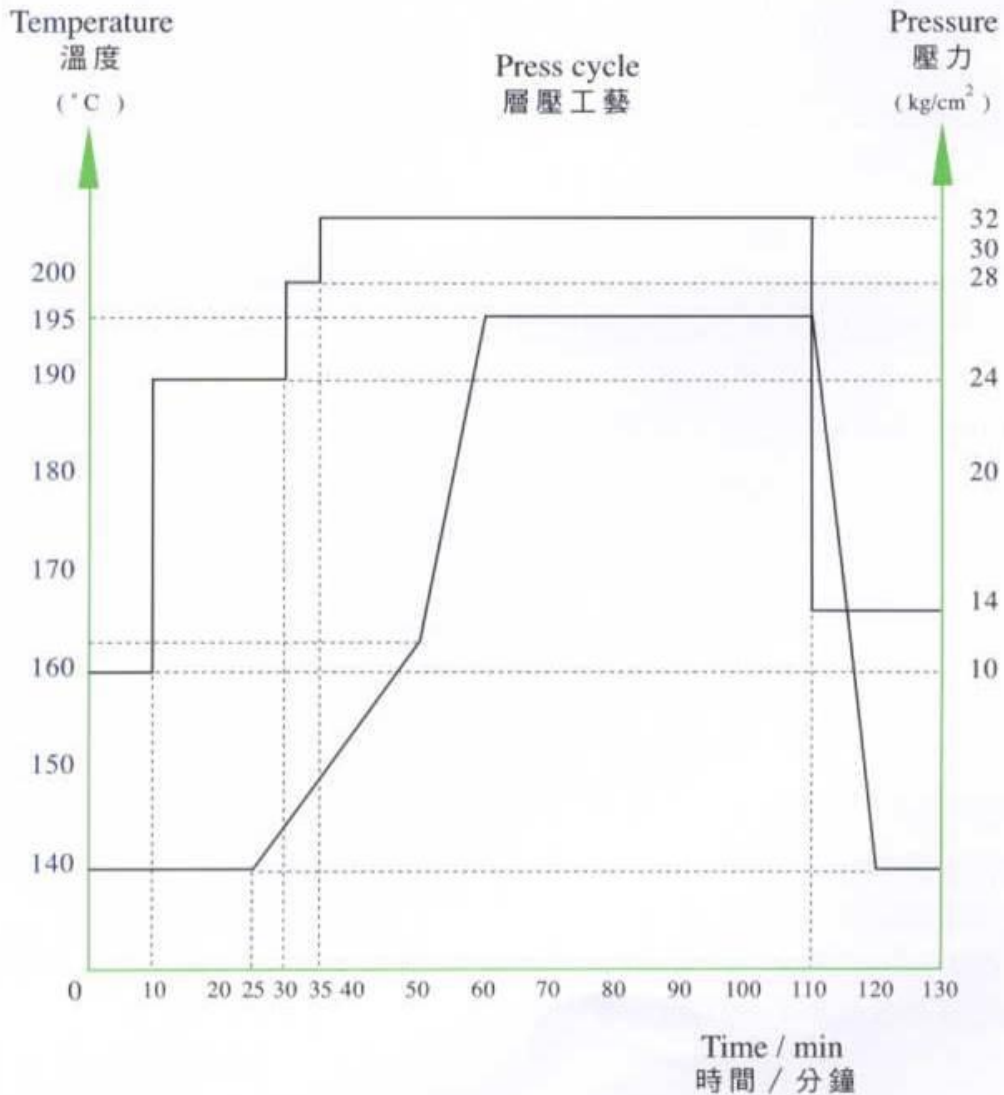
PREPREG (ANSI GRADE : FR-4) 半固化片

層壓過程溫度及壓力曲線

冷熱分開壓制體系

Press profile of temperature and pressure during pressing

For separated Hot/Cold press system





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Prepreg parameters 半固化片一般特性

UL Designation UL 型號	Base fabric style 基材布類型	Resin Content(%) 樹脂含量	Gel Time(sec) 凝膠時間		Resin Flow(%) 流動度	Volatile Content(%) 揮發物含量	Thickness Per ply(mil) 壓合厚度
			FR-4	FR-4UV			
KB-6050 (FR-4)	#1080	63±3	125±20	120±20	42±5	< 0.5	2.8±0.3
		64.5±3	120±20	115±20	44±5	< 0.5	3.0±0.3
KB-6060 KB-6064 KB-6067 (FR-4 UV)	#2116	53±3	125±20	120±20	32±5	< 0.5	4.7±0.3
		55±3	125±20	120±20	34±5	< 0.5	5.0±0.4
		43±3	125±20	120±20	22±5	< 0.5	7.3±0.6
			45.5±3	125±20	120±20	26±5	< 0.5
48.5±3	120±20	115±20	29±5	< 0.5	8.3±0.8		
	52±3	120±20	115±20	32±5	< 0.5	9.3±0.8	
	#7630	49.5±3	120±20	115±20	30±5	< 0.5	9.3±0.8

- Other fabric style are available upon request
- 其它基材布類型可按客戶要求提供
- Prepreg characteristics is adjusted to fit different processing condition of customer
- 半固化片指標可根據客戶制程要求調整。

Recommended Process Condition

- Heat ramp up rate (between 80°C-140°C) should be 1.5±0.5°C/min.
- Curing time should be 45(minimum) and temperature to be maintained at 175°C or above.
- Curing pressure should be 25±kg/cm² with vacuum hydraulic press.
- Pressure for cooling stage should be higher than 10kg/cm² when product temperature is higher than 120°C.

推薦層壓工藝條件

- 熱壓升溫速率(80°C-140°C之間)為1.5±0.5°C/分鐘。
- 固化時間應維持不低於175°C至少45分鐘。
- 固化壓力為25±5kg/ cm²(真空液壓壓機)
- 冷卻階段當板溫度於120°C以上時，壓力應不低於10 kg/ cm²。