

絕緣紙

INSULATION PAPER



長  春

長春人造樹脂廠股份有限公司
CHANG CHUN PLASTICS CO., LTD

簡介

長春人造樹脂廠股份有限公司大發廠於1994年開始生產絕緣紙，年產能72,000公噸，為絕緣紙專業製造廠，生產設備採用日本三菱重工最新之全自動化抄紙機台，並使用純水及潔淨紙漿抄紙，在嚴嚴格之品質管制之下產製品質均一，引張強度、吸水度、吸油度及外觀等物性良好穩定之絕緣紙，在尺寸及特性上，長春絕緣紙可依客戶的特定需求配合提供。

隨著資訊電子工業的高度發展，長春絕緣紙已大量被應用於電視、音響、電話、計算機、電腦鍵盤、監視器、電源供應器及各類家電、汽車零組件等用途之酚醛樹脂積層板、CEM-1複合基板及電木板業，深受各界肯定歡迎，本公司將繼續秉持品質、服務、創新之理念，提供最優良的絕緣紙服務各界，敬請愛護指教。

Introduction

Chang Chun Plastics began the production of insulation paper in 1994 at Ta-Fa plant. With a nameplate capacity of 72,000 metric tons per annum. The plant employs the most advanced automatic paper machine supplied by Mitsubishi Heavy Industries Ltd, and use pure water and clean pulp. Under strict quality control management, the insulation paper produced at this plant is not only homogeneous in quality but also possesses excellent properties in stability, tensile strength, water absorption, castor oil penetration and appearance. In addition, Chang Chun provides service to customize the size and characteristics in accordance with customer's specific requirements.

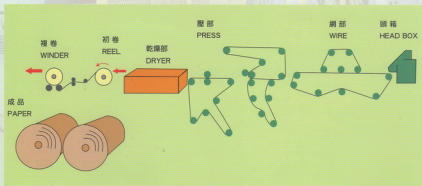
In conjunction with the growing development in the high tech electronic industries, Chang Chun insulation paper has widely used in the manufacture of paper phenolic copper clad laminates, CEM-1 composite copper clad laminates and phenolic laminates which are the base materials for printed circuit board installed in a wide range of appliances such as TV, stereo, telephone, calculator, computer keyboard, monitor, power supply, household electric appliance, automobile parts and so on. An acclaimed professional manufacturer, Chang Chun will continue to make every effort under the concept of "Quality, Service, Innovation" to provide quality insulation paper to meet the need of the electronic industry.



長春1號機抄紙機台
CCP PM#1 Paper Machine

絕緣紙製造流程圖

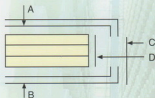
Production Process Chart of Insulation Paper



長春絕緣紙特性及主要用途 Characteristics and Major Application

種類 Type	基重(g/m ²) Basis Weight	特性 Characteristics	主要用途 Major Application
基板用紙	120~155	<ul style="list-style-type: none"> · 白度、引張強度、吸水量及吸油度良好穩定 · 品質均一 · 基重、紙幅規格齊全 · Good Brightness, tensile strength, water absorption and castor oil penetration · Homogeneous in quality · Complete specifications 	<ul style="list-style-type: none"> · 電木板 · 酚醛樹脂積層板 · Phenolic resin Laminates · Paper phenolic copper clad laminates
CEM-1用紙	130~206	<ul style="list-style-type: none"> · 白度、引張強度、吸水量及吸油度良好穩定 · 品質均一 · 紙張韌度佳 · 接近棉織紙特性 · Good Brightness, tensile strength, water absorption and castor oil penetration · Homogeneous in quality · Good bulk density · Approach linter paper property 	<ul style="list-style-type: none"> · CEM-1板 · CEM-1 composite copper clad laminates

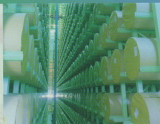
絕緣紙包裝方式 The Package of Insulation Paper



- | | |
|-----------------|------------------------------|
| A: 1.5層之內裝PE淋膜紙 | A: 1.5 layers of PE lining |
| B: 2.5層之外裝牛皮紙 | B: 2.5 layers of kraft paper |
| C: 1層端面外裝牛皮紙 | C: 1 layer of kraft paper |
| D: 1層端面內裝PE淋膜紙 | D: 1 layer of PE lining |

研發及品檢主要機器設備 Major Instruments of RD & QA

- | | |
|------------|-------------------------------|
| · 引張強度機 | Tensile Tester |
| · 纖維配向性試驗機 | Sonic Sheet Tester |
| · 纖維交織試驗機 | Sheet Formation Tester |
| · 纖維長分析機 | Fiber Analyzer |
| · 厚度計 | Thickness Micrometer |
| · 白度計 | Brightness Tester |
| · 吸水量計 | Klemm Water Absorption Tester |
| · 透氣度試驗機 | Permeability Tester |
| · 電導度計 | Conductivity Meter |
| · 含氮量測計 | Auto Titrator |



成品自動倉儲
Automatic Storage/Retrieval System

酚醛樹脂積層板用之絕緣紙規格表

Specifications of Insulation Paper for Paper Phenolic Copper Clad Laminate

項目 ITEM	單位 UNIT	IP127-M	IP134-M	測試方法 Test Method	檢測設備 Test Method	
外觀 Appearance		沒有皺紋、鬆弛、破裂、異物等 No wrinkle, Rupture, Dirt	沒有皺紋、鬆弛、破裂、異物等 No wrinkle, Rupture, Dirt	JIS-P8145	CLx800-1100 高度標準光 EYE	
基重 Basis Weight	g/m ²	127.0±3.0	134.0±4.0	JIS-P8124	電子天平 Electronic Analytical Balance	
水份 Moisture	%	3.0-6.0	3.0-6.0	JIS-P8002	烘箱 Oven	
厚度 Thickness	mm	0.259±0.020	0.280±0.020	JIS-P8118	厚度計 Thickness Micrometer	
密度 Density	g/m ³	0.490±0.020	0.490±0.020	JIS-P8118		
引張強度 Tensile Strength	MD	kgf/15mm	5.00±0.80	5.00±0.80	JIS-P8113	引張強度機 Tensile Tester
	CD		3.70±0.80	3.70±0.80	JIS-P8113	
引張強度 MD/CD比 T.S.MD/CD Ratio			1.40±0.15	1.40±0.15	JIS-P8113	引張強度機 Tensile Tester
伸長率 Elongation	MD	%	1.3±0.3	1.3±0.3	JIS-P8113	引張強度機 Tensile Tester
	CD		2.4±0.4	2.4±0.4	JIS-P8113	
白色度 Brightness		%	88±3	88±3	JIS-P8123	白度計 Brightness Tester
吸水度 Water Absorption	MD	mm/10min	81±14	81±14	JIS-P8141	吸水度計 Kleinn Water Absorption Tester
	CD		75±14	75±14	JIS-P8141	
吸油度 Castor Oil Penetration	FS	Sec	10±3	11±3	TAPPE T462	吸油度計 Castor Oil Penetration
	WS		11±3	13±3	TAPPE T462	
污點 (個/m ²) Dirt (pc/m ²)	> 0.5mm ²	0	0	JIS-P8145	污點檢視器 Foreign Particulate Matter in Paper by Transmitted Light	
	< 0.5mm ²	<30	<30			

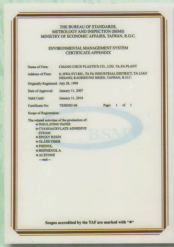
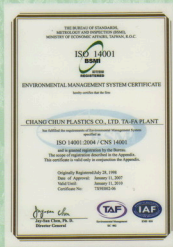
※ (上述資料僅供參考) For Reference Only

CEM-I 複合積層板用之絕緣紙規格表

Specifications of Insulation Paper for CEM-I Composite Copper Clad Laminate

項目 ITEM	單位 UNIT	IC130-M	IC170-M	測試方法 Test Method	檢測設備 Test Method	
外觀 Appearance		沒有皺紋、鬆弛、破裂、異物等 No wrinkle, Rupture, Dirt	沒有皺紋、鬆弛、破裂、異物等 No wrinkle, Rupture, Dirt	JIS-P8145	CLx800-1100 亮度標準光 EYE	
基重 Basis Weight	g/m ²	130.0±3.0	170.0±4.0	JIS-P8124	電子天平 Electronic Analytical Balance	
水份 Moisture	%	3.0-6.0	3.0-6.0	JIS-P8002	烤箱 Oven	
厚度 Thickness	mm	0.289±0.020	0.402±0.020	JIS-P8118	厚度計 Thickness Micrometer	
密度 Density	g/m ³	0.450±0.020	0.430±0.020	JIS-P8118		
引張強度 Tensile Strength	MD	kgf/15mm	> 3.5	> 4.0	JIS-P8113	引張強度機 Tensile Tester
	CD		> 2.5	> 3.0	JIS-P8113	
引張強度 MD/CD比 T.S.MD/CD Ratio		1.35±0.15	1.35±0.15	JIS-P8113	引張強度機 Tensile Tester	
伸長率 Elongation	MD	%	1.2±0.3	1.2±0.3	JIS-P8113	引張強度機 Tensile Tester
	CD		2.3±0.4	2.3±0.4	JIS-P8113	
白亮度 Brightness		%	89±3	89±3	JIS-P8123	白度計 Brightness Tester
吸水量 Water Absorption	MD	mm/10min	95±14	100±14	JIS-P8141	吸水量計 Kleimn Water Absorption Tester
	CD		90±14	95±14	JIS-P8141	
吸油度 Castor Oil Penetration	FS	Sec	10±3	14±3	TAPPE T462	吸油度計 Castor Oil Penetration
	WS		11±3	15±3	TAPPE T462	
污點 (個/m ²) Dirt (pc/m ²)	> 0.5mm ² < 0.5mm ²	0 < 30	0 < 30	JIS-P8145	污點檢視器 Foreign Particulate Matter in Paper by Transmitted Light	

※ (上述資料僅供參考) For Reference Only





提昇品質
UPGRADE
QUALITY



滿足顧客
SATISFY
CUSTOMERS

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