



賦予鋼板色彩的靈魂

凱景烤漆鋼品

Enliven the Color of Steel

Kai Ching Color Coating Products



凱景實業股份有限公司

公司：高雄市小港區大業南路42號
總機：07-8715215 傳真：07-8713835
電郵：sales@kcico.com.tw
網址：www.kcico.com.tw

Kai Ching Industry Co., Ltd.

Address：No.42, Daye S. Rd., Xiaogang Dist., Kaohsiung City, TAIWAN
Tel：+886-7-8715215 Fax：+886-7-8715215
E-mail：sales@kcico.com.tw
Website：www.kcico.com.tw

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凱景集團經營理念

Management Philosophy of Kai Ching Group

誠：誠以待人、以客為尊、客我誠誠相待、共創輝煌人生。

信：信心締造信用，信用伴生信心、客我信信相伴、共鑄雙贏豐碑。

勤：以勤奮己、奮己勸人、客我勤奮不已，共造理想社會。

成：誠懇經營，十足信心伴生良好信用，辛勤奮鬥，共釀成功未來。

Sincerity: Treat people with honesty, provide customer-oriented service and maintain sincere friendship with customers to create a brilliant life together.

Trust: Confidence produces credit and credit generates confidence. Build mutual trust with customers to derive win-win results.

Diligence: Stimulate ourselves with diligence to encourage others. Work hard together with customers to create an ideal society.

Success: Manage the business with sincerity, give full confidence and produce great credit, and work at our utmost diligently to create a successful future.

前言 Preface

凱景集團自1977年在台灣成立以來，不斷朝著成為國際化的鋼鐵製造服務廠為目標而努力不懈，為了提供客戶最優良的鋼品，在生產設備、製程能力及創新研發上更是不斷精益求精，三十多年來，凱景鋼品已行銷至全世界各個角落，產品與服務皆受到海內外客戶的肯定與推崇。有鑑於此，為了提供客戶更多元化之產品，集團於1998起開始於中國大陸設廠及擴建設備並先後完成了多條生產線，生產規模已達完備，產品種類齊全且多樣化，高水準的競爭優勢已儼然成為客戶業務成長的最佳推手。

然而伴隨著全球競爭的白熱化，鋼材大量廣泛的應用在各種不同的產業，客戶產業鏈需求日益複雜及產品快速地推陳出新，凱景集團為了讓客戶擁有更好的競爭力，不斷加快研究創新的腳步，從傳統的建築鋼材跨界至汽車、家電、照明及數位電子等產業，提供客戶具高加工性及外觀高質感的鋼板，讓其應用在許多高端的產業，使鋼板的應用發揮到淋漓盡致。

不僅如此，因著全世界環保意識日益高漲，有關能源、健康、環境等重要議題受到各個階層及產業的重視，凱景集團也致力於發展在原料採取、產品製造、應用過程和使用以後的再生利用循環中，對地球環境負荷最小、對人類身體健康無害的材料，也就是「綠色環保鋼材」，最終目標就是為建立一個健康與舒適的環境，追求人類生計與萬物生活均衡共存，進而達成地球環境的永續發展。

凱景集團在品質第一、客戶至上的目標上從來不敢懈怠，以嚴謹的管理流程提供最優良的產品與服務，更重要的是藉著不斷地創新與研發，為要與客戶共同找出雙贏的“藍海”價值，以期為客戶創造最大的利潤，競爭優勢及產業價值。放眼未來，凱景集團依舊秉持著這些目標，努力向前邁進，期能成為世界一流的鋼鐵製造服務廠，與所有客戶並肩齊步，共同成長。

Since the establishment in Taiwan from 1977, Kai-Ching Group strives to become an internationalized steel manufacturing mill providing excellent service. In order to deliver prime quality steel products to meet the demand of our customers, we dedicate all necessary resources in equipment improvement, production capability, and research and development innovation. In the past thirty years in the industry, Kai-Ching's products have delivered to every corner of the world and have been well received by our customers for the excellence in quality and service. Therefore, Kai-Ching extends the manufacturing facility into China comprising multiple production lines. The expansion further broaden our product varieties and enhance our competitiveness.

Under fierce competition in the global market, the application and utility of flat steel products becomes more diversified and sophisticated. In order to facilitate the competitiveness of our customers, Kai-Ching expedites its pace on research and development to produce steel sheets with better processing ability and superior surface appearance. Further, the company extends the product range from traditional construction applications into automotive, home-appliance, illumination, and electronics.

In spite of increasing global ecological concern, issues such as energy efficiency, health care, environmental conservation become center of attention for individuals as well as enterprises. Kai-Ching also do address these issues by implementing the environmental considerations in the supply chain cycle, including raw material acquirement, production process, application practice and post-usage recycling. Keeping the objectives of producing "environmentally friendly products" with minimal ecological burden and precluding bodily harm in mind, we endeavor for a healthy and comfortable environment which leads to the ultimate goal of sustainable development with balanced ecology and human habitat.

Kai-Ching Group places quality first and customer satisfaction as our business guideline, couple with rigorous standardized management procedures to offer superb quality products and services. Furthermore, with incessant innovation and improvement, the members make every effort to achieve win-win situation for our customers with maximizing profitability, increasing competitive advantage, and adding industry value. By putting these traditional values into daily practice, we undertake to sustain as the key supplier of prime quality flat steel product supplier in the market and growth in time with our customers.

目錄

Contents

- 1 前言
Preface
- 4 凱景集團
Kai Ching Group
- 5 凱景公司簡介
Introduction of Kai Ching Corporation
- 6 連續式烤漆生產線介紹
Introduction of Continuous Color Coating Lines
- 8 連續式分條生產線介紹
Introduction of Continuous Slitting Lines
- 9 連續式裁板生產線介紹
Introduction of Continuous Cutting Lines
- 10 產品項目
Main Products
 - 凱景智慧節能環保烤漆鋼品系列
Kai Ching Environmental Friendly Color Coating Products
 - 12 自潔降溫氟碳樹脂烤漆鋼品
SelfClean CoolRoof PVDF Pre-Painted Products
 - 15 彩鑽高耐候氟碳樹脂烤漆鋼品
COLOR ZM PVDF Pre-Painted Steel Products
 - 20 高耐候不銹鋼氟碳樹脂烤漆鋼品
PVDF Stainless Steel Pre-Painted Products
 - 22 高耐候鋁板氟碳樹脂烤漆
PVDF Aluminum Pre-Painted Products
 - 24 高耐候氟碳樹脂烤漆鋼品
PVDF Pre-Painted Products
 - 26 高耐候矽質強化聚酯樹脂烤漆鋼品
SMP Pre-Painted Products
 - 27 智慧抗靜電樹脂烤漆鋼品
Anti-Electrostatic PE Pre-Painted Products
 - 28 智慧抗菌環保樹脂烤漆鋼品
Anti-Microbial PE Pre-Painted Products

- 29 晶鑽藝術樹脂烤漆鋼品
Crystal Diamond Resin-coated Decorative Steel Products
- 35 消光藝術樹脂烤漆鋼品
Rough Matt Polyester Pre-Painted Products
- 36 點紋藝術樹脂烤漆鋼品
Neo Matt Polyester Pre-Painted Products
- 37 彩色樹脂烤漆鋼品 (PE)
Polyester Pre-Painted Products

凱景智慧家電工業環保烤漆鋼品系列 Kai Ching Environmental Friendly Pre-Painted Products for Industrial & Home Appliance

- 40 數位電子產品用環保烤漆鋼品
Electronic Usage Pre-Painted Products
- 42 家電產品用環保烤漆鋼品
Home Appliance Usage Pre-Painted Products
- 44 工業產品用環保烤漆鋼品
Industrial Usage Pre-Painted Products

- 46 品質保證
Quality Assurance
- 48 技術服務及研發
Technical Service and R&D
- 50 實績介紹
Representative Applications
- 54 訂購須知
Notices for Order
- 55 包裝與標示
Packing and Labeling
- 56 運輸及儲存
Transportation and Storage
- 57 附錄
Reference Data
 - 1. JIS/ASTM 規範 Standard
 - 2. ZAM®規範 Standard



● 台灣凱景實業股份有限公司

公司：高雄市小港區大業南路42號
總機：07-8715215
傳真：07-8713835
電郵：sales@kcico.com.tw
網址：www.kcico.com.tw

Taiwan Kai Ching Industry Co., Ltd.

Address : No.42, Daye S. Rd., Xiaogang Dist., Kaohsiung City, TAIWAN
Tel : +886-7-8715215
Fax : +886-7-8713835
E-mail : sales@kcico.com.tw
Website : www.kcico.com.tw

● 福建凱景新型科技材料有限公司

公司：福建省龍海市角美工業開發區19號地
總機：+86-596-676-6252
傳真：+86-596-676-6253
電郵：sales@fjkj.com.cn

Fujian Kai Ching Steel Development Co., Ltd.

Address : No.19, Jiao-Mei Industrial Zone, Long-Hai, Fujian, CHINA
Tel : +86-596-676-6252
Fax : +86-596-676-6253
E-mail : sales@fjkj.com.cn

● 廣東中山凱發金屬有限公司

公司：廣東省中山市東升鎮坦背東二馬路32號
總機：+86-760-850-0704
傳真：+86-760-850-9966
電郵：kaifa06@163.com

Guangdong Zhong-Shan Kai Fa Metal Co., Ltd.

Address : No.32, Tan-Bei Dong 2nd AVE.,
Dong-Sheng, Zhong-Shan, Guangdong, CHINA
Tel : +86-760-850-0704
Fax : +86-760-850-9966
E-mail : kaifa06@163.com



台灣凱景實業股份有限公司成立於西元1977年，由陳振常、陳曾四欣夫婦所創辦，目前廠區佔地面積共三萬柒仟平方米，設有二條年產量分別是15萬噸及10萬噸的連續式烤漆生產線，以及專業的裁剪中心，公司自創立以來，就朝著製程能力及創新研發上不斷的精益求精，自許成為一個高品質及多元化的專業烤漆鋼品生產廠家。

隨著烤漆鋼品廣泛的應用在各個不同的產業，我司亦不斷的研發新穎且多元化的產品以期滿足客戶的需求，協助客戶在其產業領域擁有更好的競爭力，首先

· 隨著環保、能源、健康、環境等議題在各個產品應用端受到重視，我司推出了對地球環境負荷小且對人類身體健康無害的-"凱景智慧節能環保烤漆鋼品系列"，此系列的產品，擁有優異的高節能、高耐久、高耐候等等重要的環保功能，是所有"綠建築"最佳的建材選擇。

近幾年來，隨著鋼材大量廣泛應用在各種不同的產業，如汽車、家電、照明及數位電子等等，我司也因應客戶的需求推出了"凱景智慧家電工業環保烤漆鋼品系列"，此系列的產品，擁有優異的高加工性能，而在鋼板的外觀更是具備許多新穎且高質感的特殊表面，讓烤漆鋼板不再只是顏色的呈現，而是提升至色彩的藝術層次，讓客戶感受到有如為您"量身訂製"般的鋼板選擇，讓彩色鋼板也成為一種"精品"。

"凱景烤漆鋼品"未來仍舊秉持著不斷的研究創新及提供最優良的產品及服務而努力，為客戶創造最大的產品價值，共創美好的未來。

Taiwan Kai Ching Industry Co., Ltd. was established in 1977 by Mr. Chen, Jhen-Chang and his wife Mrs. Chen Zeng, Sih-Sin. The plant covers 37,000 square meters of land and has two state of art continuous pre-coating line (CCL) and a professional slitting and cut-t-length service center. The annual capacity of CCL 1 and CCL 2 are 100,000 metric tons and 150,000 metric tons. Since its establishment, the company has striven for excellence in processing ability and innovations in research and development to become a professional manufacturer of color coating products with high quality and diversification.

Because the application of color coating product becomes general and popular in different industries, we continuously develop innovative and diverse products to satisfy the needs of our customers and help boost their competitiveness in their respective industry. With increasing concerns of environmental protection, energy efficiency, health care and environmental conservation in various product applications, we develop "Kai Ching Environmental Protection Color Coating Products" which are with minimal ecological burden and are harmless to human health. These products have superior capabilities in important environmental protection functions such as high energy-saving, high durability, and high weather-resistance, and are the best choices of materials for "Green Building".

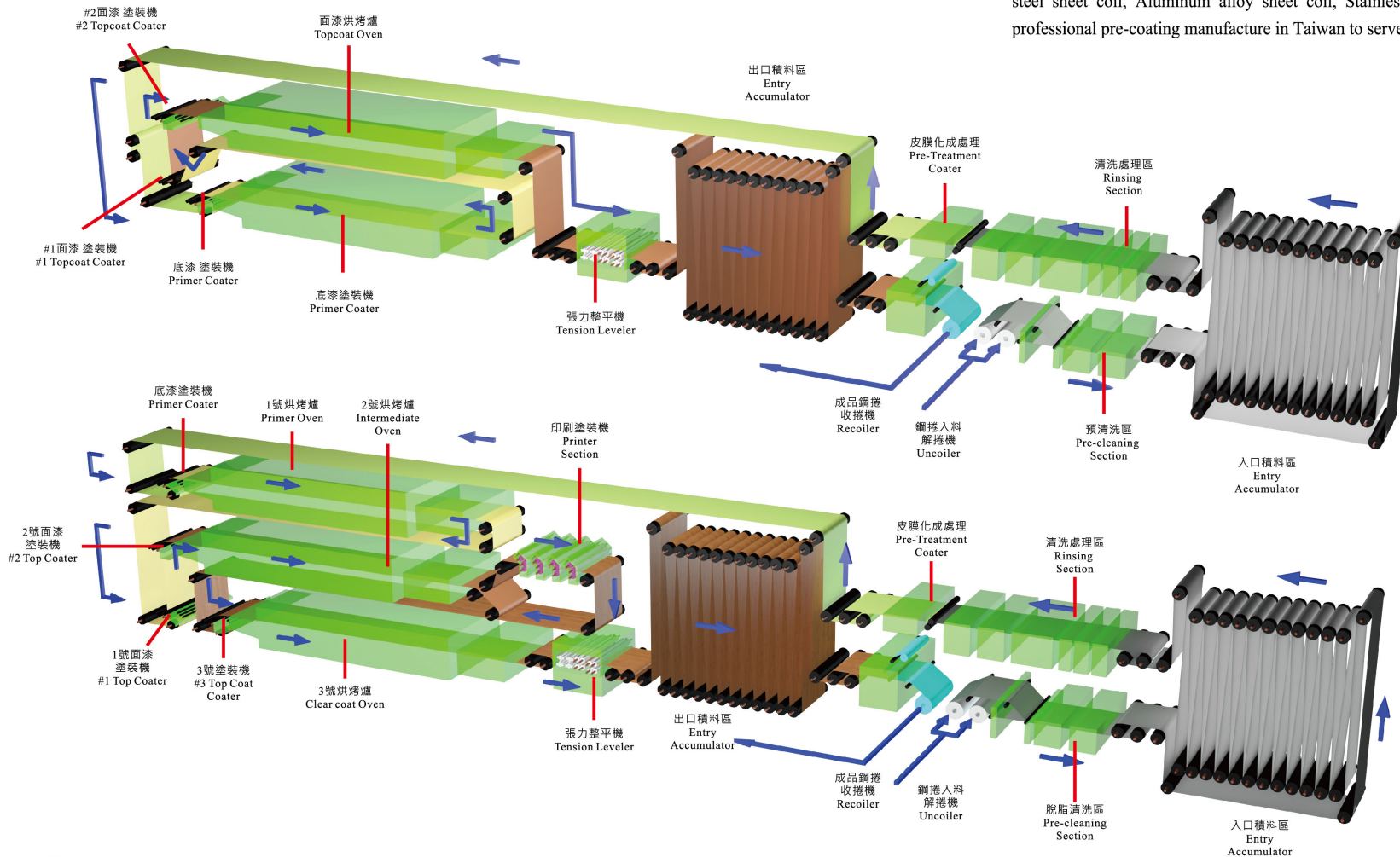
Because the application of steel products becomes general and popular in various industries such as automobile, home appliance, illumination and digital electronics in recent years, we develop "Kai Ching Environmental Protection Pre-painted Products for Industrial and Home Appliance" according to the needs of our customers. These products have superior processing performance, and the appearances of the steel sheets are innovative and have special and high quality surfaces. Pre-painted steel sheets are not only for presenting color, but also enhance the color as an art work. Customers will find from the choices of steel sheets we offer the "tailor made" products for them, and color steel sheets also become a fine work of art.

"Kai Ching Color Coating Products" will continue working on research and innovation to provide best products and service and create the maximum product value for our customers to build a better future together.

連續式烤漆生產線介紹

Introduction of Continuous Color Coating Lines

本公司的二條連續式烤漆線分別安裝完成於2015年8月及2016年2月。CCL NO.1為三塗三烤連續式烤漆線，產線速度為80M/min，年產能10萬公噸，CCL NO.2為二塗二烤連續式烤漆線，產線速度為120M/min，年產能15萬公噸。二條生產線皆由韓國浦項POSCO E&C設計製造，並採用世界大廠德國西門子SIEMENS的電控設備，全線自動化流程電腦控制，產線皆配備烤漆後張力整平設備，可讓鋼板達到非常優異的平整度控制，其中產線CCL NO.1配備高階印刷設備，可生產髮絲紋、木紋、石紋...等特殊表面之高階藝術印刷烤漆產品。本公司的產線為台灣目前最先進、最高階、最具競爭力的烤漆線，生產能力已幾乎涵蓋所有的烤漆產品品項，主要產品包括：鍍鋅鋅烤漆鋼品、不鏽鋼烤漆鋼品、鋁合金烤漆鋼品、冷軋烤漆鋼品、藝術印刷烤漆鋼品...等，凱景公司可說是台灣最專業的烤漆鋼品生產廠，高優質的產品必定能達成及滿足所有客戶的需求。



Both of continuous pre-coating lines were commenced on August 2015 and February 2016. KC's No.1 Color Coating Line (CCL) is three coat three bake (3C3B) type line and has capacity of 100,000 Metric Ton annually with highest speed of 80 meter per minutes (MPM). KC's No.2 CCL is two coat two bake type production line and has capacity of 150,000 Metric Ton annually with highest speed of 120 MPM. Both of CCL were designed and manufactured by POSCO E&C, and adopted the top of the line SIEMENS 's motors and automation control. Each coating line has its own Tension Leveler which able to make sure the flatness of each metal sheet as flat as possible. KC's No.1 CCL has equipped four high precision printers which allow us to print vivid texture such as wooden texture, rocky texture, hairline texture.. etc. on to diversity of substrate such as Galvanized steel sheet coil, 55%Al-Zn steel sheet coil, 3%Mg-6%Al-Zn steel sheet coil, Cold Roll steel sheet coil, Aluminum alloy sheet coil, Stainless steel sheet coil.. etc. We are delicate as the most professional pre-coating manufacture in Taiwan to serve our customer with the highest quality as requested.

	CCL No.1	CCL No.2
年產量 Annual Capacity	100,000MT	150,000MT
最高速度 Max. Line Speed	80M/min	120M/min
鋼捲內徑 I.D. (mm)	508, 610mm	508, 610mm
最大鋼捲外徑 Max. O.D. (mm)	2000mm	2000mm
最大鋼捲重量 Max. Coil Weight (MT)	25MT	25MT
鋼捲厚度範圍 Thickness Range	0.17~1.4mm	0.17~1.6mm
鋼捲寬度範圍 Width Range	600~1270mm	600~1270mm

連續式分條生產線介紹

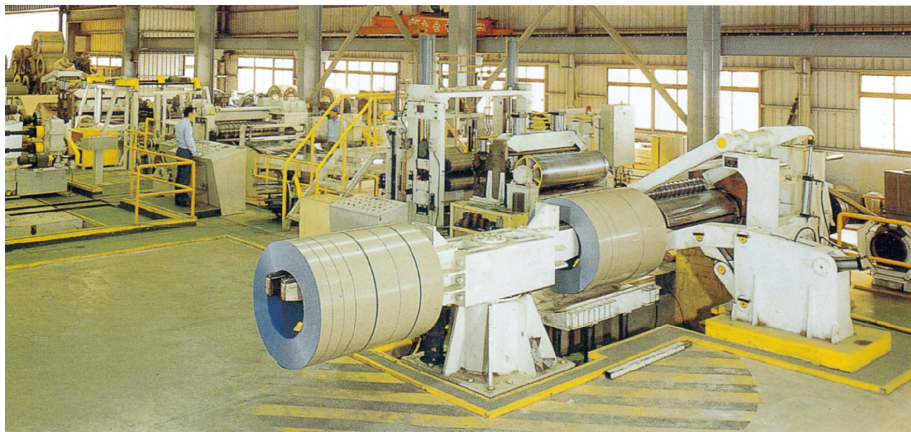
Introduction of Continuous Slitting Lines

進料尺寸範圍 Size Scope of Incoming Material

- 寬度範圍 (Width Range) 762mm~1524mm
- 厚度範圍 (Thickness Range) 0.26mm~3.00mm
- 四呎寬分條機 (4' Width Slitter)
- 保護膜 (Protective Film) PE 透明膜

材料類別 Kinds of Material

烤漆鋼捲 / 鍍鋅鋼捲 / 冷熱軋鋼捲 / 不銹鋼捲
PPGI / GI / CR / HR / STAINLESS



連續式裁板生產線介紹

Introduction of Continuous Cutting Lines

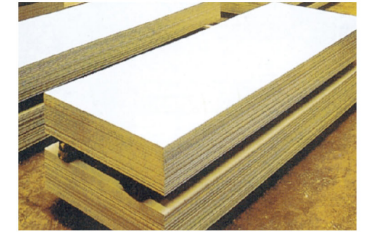
整平裁板 LEVELING & SHEARING

進料尺寸範圍 Size Scope of Incoming Material

- 寬度範圍 (Width Range) 400mm~1550mm
- 厚度範圍 (Thickness Range) 0.25mm~3.20mm
- 保護膜 (Protective Film) PE 透明膜

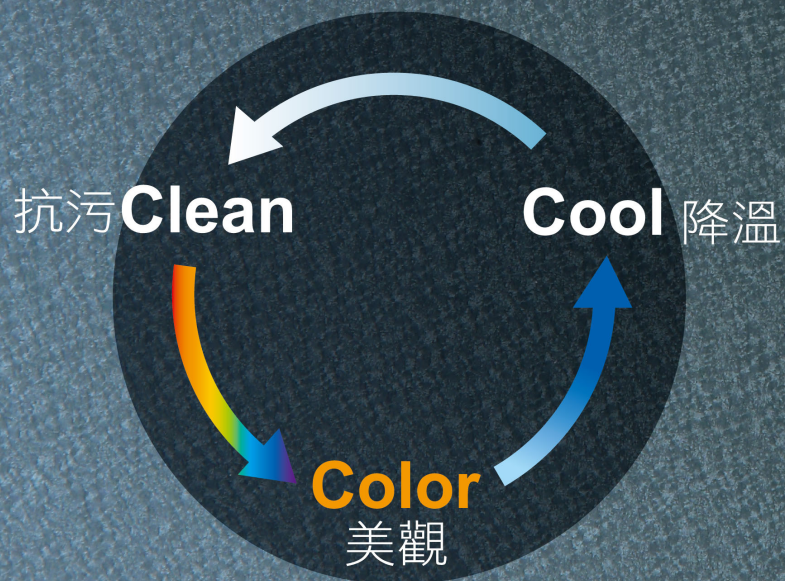
材料類別 Kinds of Material

烤漆鋼捲 / 鍍鋅鋼捲 / 冷熱軋鋼捲 / 不銹鋼捲
PPGI / GI / CR / HR / STAINLESS



Kai Ching Environmental Friendly Color Coating Products

凱景智慧節能環保 烤漆鋼品系列



美觀、降溫、抗污
Colorful, CoolRoofing, SelfClean

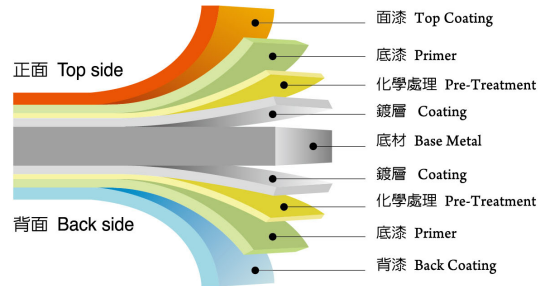
自潔降溫氟碳樹脂烤漆鋼品

SelfClean CoolRoof PVDF Pre-Painted Products

一、產品說明 Product Description :

1、凱景自潔降溫氟碳樹脂烤漆鋼品是以高性能的聚偏二氟乙烯樹脂 (Polyvinylidene Fluoride - PVDF) 為塗料並增加抗污及反射輻射熱之功能所製成之綠色環保鋼板。

2、凱景自潔降溫氟碳樹脂烤漆鋼品可以依不同環境之需求而採用不同之最佳底材 (熱浸鍍鋅、55%鍍鋅、鋁合金板或不銹鋼板等)。



1. Kai Ching SelfClean CoolRoof PVDF Pre-painted Products, a green and eco-friendly steel sheets which use high performance Polyvinylidene Fluoride (PVDF) as coating, are dirt-resistant and can reflect radiant heat.
2. Kai Ching SelfClean CoolRoof PVDF Pre-painted Products can use different substrates (hot dip galvanized coated steel, 55% Al-Zn coated steel, aluminum plate and stainless steel, etc.) for each appropriate environment.

二、產品特色 Product Characteristics :

1、耐候美觀功能

凱景自潔降溫氟碳樹脂烤漆鋼品擁有極佳的耐候性、耐腐蝕性、耐化學藥品等性能，可讓鋼板的耐用年限達到數十年之久，外觀色彩美麗且有良好之加工性，結合抗塵自潔與降溫節能的功能，成為節能減碳的最佳的綠色環保材料。

2、降溫節能功能

因應全球暖化現象日益嚴重，環境溫度年年創新高，凱景自潔降溫氟碳樹脂烤漆鋼品藉由塗料的高總反射太陽輻射熱 (TSR, Total Solar Reflectance) 特性來降低紅外線熱能的吸收，減少鋼板表面溫度的上升，進而達到降溫節能的效果。

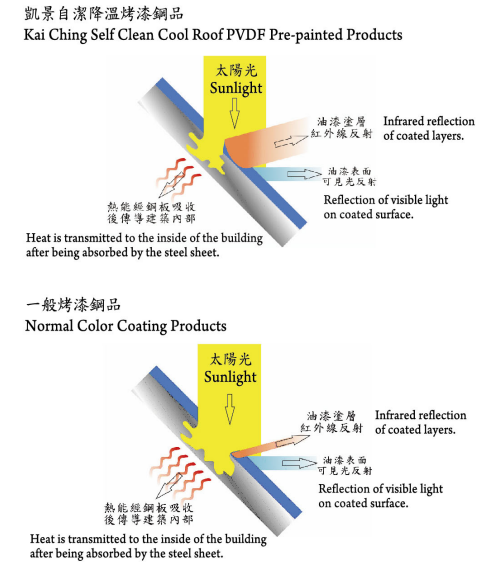
1. High Weather-resistance and Beautiful Appearance

Kai Ching SelfClean CoolRoof PVDF Pre-painted Products have excellent performance in weather-resistance, corrosion-resistance, and chemical-resistance, which able to make the substrate more durable up to several decades. With its beautiful color in appearance, good processing ability and functions such as dust-resistance, self-clean, temperature reduction and energy saving, it is the best green and eco-friendly material.

2. Temperature Reduction and Energy Saving

Considering the global warming and increasing environmental temperature, Kai Ching SelfClean CoolRoof PVDF Pre-painted Products utilize high total solar reflectance (TSR) property of coating to reduce the absorption of infrared heat and decrease the surface temperature of steel sheets in order to achieve the goal of temperature reduction and energy saving.

降溫節能功能示意圖 Illustration of Temperature Reduction and Energy Saving Schematic

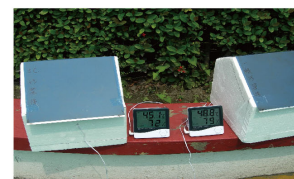


3、抗污自潔功能

傳統的PVDF烤漆鋼板，因塗料不具有親水性，表面的汙染物無法隨著雨水沖刷，日積月累下來的污垢不斷堆積在鋼板表面，變得不易清洗，凱景自潔降溫氟碳樹脂烤漆鋼品運用最新高科技奈米技術疏水性塗料，讓鋼板表面產生抗塵及抗污的功能，使空氣中所帶來的灰塵積汙染物不易附著在鋼板上，容易隨著雨水沖刷及清洗，使鋼板能持久保持清潔亮麗的外觀。

3. Anti-staining and Self-clean Feature

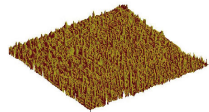
The traditional PVDF coating of pre-painted steel is not hydrophobic, and pollutants on the surface cannot be washed away by rain. Through accumulation over time, pollutants become difficult to clean. Kai Ching SelfClean CoolRoof PVDF Pre-painted Products use the latest hydrophobic Nano coating to make the surface of steel sheets dust-resistant and Anti-staining. Dust and pollutants in the air cannot easily attach onto the steel sheets and can be easily washed and cleaned with rain. Steel sheets can maintain the cleanness and beautiful appearance persistently.



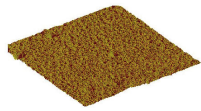
室外陽光深色系烤漆鋼板曝曬測試，凱景自潔降溫烤漆鋼板(左)與一般烤漆鋼板(右)之溫差達3.7℃
Ps. 因淺色系烤漆鋼板TSR較高，降溫效果可達5℃

For exposure test of dark pre-painted steel under outdoor sunlight, the temperature difference between Kai Ching SelfClean CoolRoof PVDF Pre-painted Products (left) and general pre-painted products (right) is 3.7℃.
Ps. As light-colored pre-painted steel products are with higher TSR, the temperature reduction can go up to 5℃.

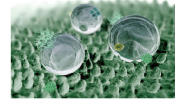
塗膜表面結構 Surface Structure of Coating film



奈米抗污塗膜表面結構
Surface structure of Nano
Anti-staining coating film



一般塗膜表面結構
Surface structure of normal
coating film



奈米抗污塗膜表面結構可呈現如蓮花效應之通能
Surface structure of Nano Anti-staining coating film can
show functions like lotus effect.

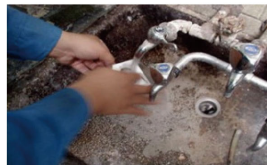
抗汙檢測方式 Inspection Method for Anti-staining



(1) 使用10% carbon solution
(10g碳黑顏料+90g水)滴在試驗板上
Apply 10% carbon solution (10g of carbon
blackpigment +90g of water) and drop it
on the test specimen.



(2) 置於80°C恆溫箱烘烤1小時
Place it in the thermostated container at
80°C and bake for 1 hour.



(3) 冷卻後，以清水沖洗
After cooling, wash it with clean water.



以電腦測量原色板與汙染色板之色差數值
Measure the color difference between the original
and polluted color palettes with computer.

抗汙功能比較 Comparison of Anti-staining Function

傳統 Traditional PVDF	抗汙 Anti-staining PVDF
$\Delta E: 2.80$ $\Delta L: 2.59$ $\Delta a: 0.34$ $\Delta b: 1.01$ TSR: 15.92%	$\Delta E: 0.85$ $\Delta L: 0.79$ $\Delta a: 0.10$ $\Delta b: 0.30$ TSR: 27%
$\Delta E: 3.49$ $\Delta L: 1.85$ $\Delta a: 0.94$ $\Delta b: 2.80$	$\Delta E: 1.14$ $\Delta L: 0.76$ $\Delta a: 0.34$ $\Delta b: 0.79$ TSR: 27.82%
$\Delta E: 5.61$ $\Delta L: 5.57$ $\Delta a: 0.43$ $\Delta b: 0.49$	$\Delta E: 1.30$ $\Delta L: 1.27$ $\Delta a: 0.21$ $\Delta b: 1.30$ TSR: 62.31%
$\Delta E: 2.58$ $\Delta L: 2.46$ $\Delta a: 0.19$ $\Delta b: 0.74$	$\Delta E: 0.16$ $\Delta L: 0.15$ $\Delta a: 0.04$ $\Delta b: 0.05$ TSR: 47.31

漆種 Coating	顏色 Color				
	2.80	3.49	5.61	2.58	
一般PVDF鋼板 Regular PVDF Steel	抗汙測試後色差(ΔE) Color difference after Anti-staining test	2.80	3.49	5.61	2.58
凱景自潔降溫PVDF Kai Ching SelfClean CoolRoof PVDF	抗汙測試後色差(ΔE) Color difference after Anti-staining test	0.85	1.14	1.30	0.16

PS. 抗汙測試與原色板色差比較 (ΔE: 越接近0表示色差越小)
PS. Color difference compared with the original color palette after
Anti-staining test (ΔE: closer to 0 means lower color difference)

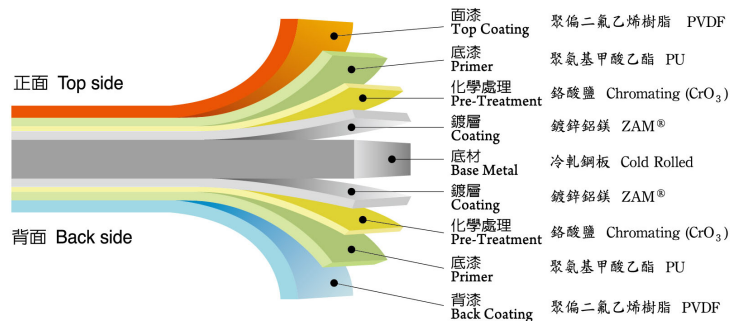


一、產品說明 Product Description

彩鑽鍍鋅鋁鎂氟碳烤漆鋼品(COLOR ZM)是一個嶄新的科技環保材料，它將塗料及鋼鐵中最頂級的二種材料做結合，創造出前所未有的優異性能之烤漆鋼品，本產品使用日本最新一代鍍鋅鋁鎂鋼板(ZAM®)為底材，表面覆蓋高耐候且高抗腐蝕的 Kynar 500® 氟碳樹脂塗料(PVDF)。鍍鋅鋁鎂鋼板(ZAM®)本身結合了3%鎂、6%鋁跟90%鋅與其他微量元素的塗層成份，大幅提升了鋼板本身的耐腐蝕性，耐腐蝕可超越熱浸鍍鋅鋼板的8~10倍，加上Kynar 500® 氟碳樹脂塗料(PVDF)的塗層，使得此項產品展現出極優異的表面性能，如：耐候性、耐腐蝕性，耐紫外線，色彩保持性、抗污染性及耐刮性...等，每種特性都大幅領先目前的烤漆鋼種，其耐用年限更可達30~50年之久。

COLOR ZM is a brand-new environment-friendly technological material, combining the top-grade materials in both coating and steel materials to make the unprecedented high-performing coated steel products. It uses the new-generation Japanese ZAM® steel sheet as the base metal, with high weather-resistant and high anti-corrosion Kynar 500® PVDF coating applied on the surface. ZAM® steel sheet itself is made of 3% magnesium, 6% aluminum, 90% zinc and other trace elements as coating ingredients, which greatly increase the steel its corrosion resistance. Its corrosion resistance outperforms the hot-dip galvanized steel sheet by 8-10 times. On top of this, the Kynar500® PVDF coating, enabling the products to show the excellent surface performance, such as weather resistance, corrosion resistance, UV resistance, color preservation, anti-staining and anti-scratch. Each of these characteristics greatly outperforms other color coated steel products currently on the market. The products also have a durable life span for 30-50 years.

ZAM® 是日新製鋼株式會社所擁有之專利商標
ZAM® is a registered trademark of Nisshin Steel Co., Ltd.



COLOR ZM 鋼板在SGS的4500小時鹽水噴霧試驗(SST)無產生紅銹
 COLOR ZM steel plate does not generate red rust in SGS's 4500 hours of salt spray test (SST).



二、產品特色 Product Characteristics

1、具有優越的耐腐蝕性

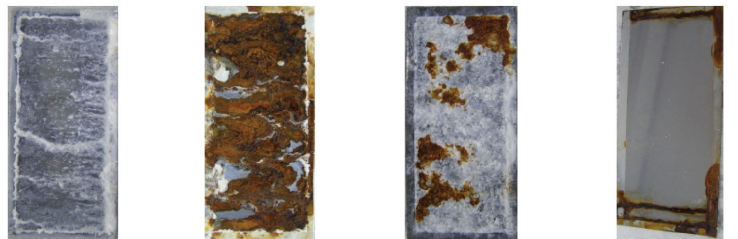
ZAM® 鋼板的耐腐蝕性極為優異，其耐蝕性可超越熱浸鍍鋅鋼板的8~10倍，幾乎可媲美不銹鋼板及鋁板等材料，搭配高耐候的氟碳樹脂塗料(PVDF)更可達到雙重防腐蝕效果。

1. Superior Corrosion Resistance

ZAM® steel plate has extremely good corrosion resistance, which surpasses the hot-dip galvanized coated steel plate by 8-10 times, almost comparable to stainless steel plate and aluminum plate, etc. When used together with the highly weather-resistant PVDF coating, it will have double protection against corrosion.

(1) 以下圖片分別為ZAM®和其他種類鋼板的鹽霧試驗比較(4000小時鹽霧試驗)

The following pictures show the comparison of salt spray test results on ZAM® and other base metals. (4000 hours of salt spray test)



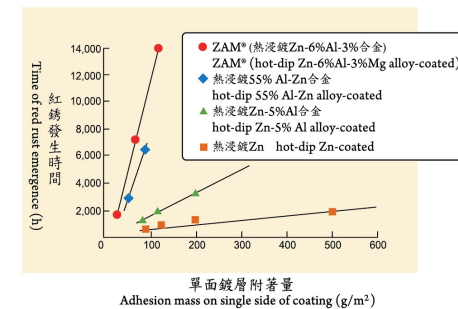
鍍鋅鋁鎂鋼板ZAM® K27 鍍鋅鋼板 Z35 55%鍍鋅鋼板 AZ250 不銹鋼 SUS 430
 ZAM® steel plate K27 galvanized coated steel Z35 55% aluminum and AZ250 Stainless steel SUS430

以上圖片顯示實驗鋼板經過4000小時鹽霧試驗過後，Z35鍍鋅鋼板、55%鍍鋅鋼板及不銹鋼板表面皆產生紅銹的腐蝕現象、但是ZAM®鋼板表面無任何紅銹腐蝕產生，可見其優越的抗腐蝕性能遠超過其他同實驗鋼板。

The above pictures show that after 4000 hours of salt spray test on the tested steel plates, red rust indicating corrosion emerges on the surface of Z35 galvanized coated steel plate, 55% aluminum and zinc-coated steel plate and stainless steel plate, but no red rust is seen on the surface of the ZAM® steel plate. This shows ZAM®'s superior corrosion resistance over other steel plates in the experiment.

在鹽水噴物腐蝕實驗下的紅銹發生時間(無後處理)

Time of red rust emergence under the salt spray corrosion test (without post-treatment)

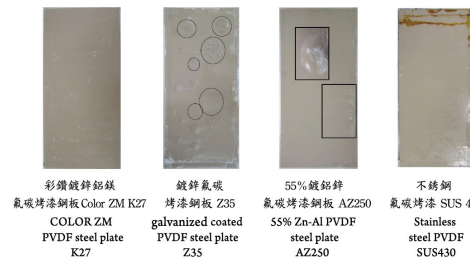


以上圖表顯示各實驗鋼板在鹽水噴物實驗下紅銹發生的時間變化，隨著時間的經過可發現：時間越久，ZAM®鋼板的抗腐蝕效果就越加的顯著。

The above graph shows the time when red rust emerges on various tested steel plates in the salt spray test. As time goes by, it can be found: the longer the time, the more obvious is the ZAM® steel plate's corrosion-resistant performance.

(2) 以下圖片分別為COLOR ZM和其他烤漆鋼板的鹽霧試驗比較(4000小時鹽霧試驗)

The following pictures show the comparison of salt spray test results on COLOR ZM and other color coated steel plates (4000 hours of salt spray test)



彩鍍鍍鋅鋁鎂 鍍鋅氟碳 55%鍍鋅鋁 不銹鋼
 氟碳烤漆鋼板 Color ZM K27 烤漆鋼板 Z35 氟碳烤漆鋼板 AZ250 不銹鋼
 COLOR ZM PVDF steel plate K27 galvanized coated PVDF steel plate Z35 55% Zn-Al PVDF steel plate AZ250 Stainless steel PVDF SUS430

圖片顯示實驗鋼板經過4000小時鹽霧試驗後，Z35鍍鋅鋼板、55%鍍鋅鋁鎂鋼板及不銹鋼鋼板表面皆產生白銹、起泡及部分紅銹的腐蝕現象、但是COLOR ZM鋼板表面則無任何腐蝕現象產生，可見其優越的抗腐蝕性能遠超過其他同實驗鋼板。

The above pictures show that after 4000 hours of salt spray test on the tested steel plates, Z35 zinc aluminum-coated steel plate, 55% zinc aluminum-coated steel plate, and stainless steel coated plate all show signs of corrosion on their surface including white rust, blisters and partly red rust, but not any sign of corrosion is shown on the surface of the ZAM® steel plate. This shows ZAM®'s superior corrosion resistance over other steel plates in the experiment.

2、具有優越的彎曲加工性

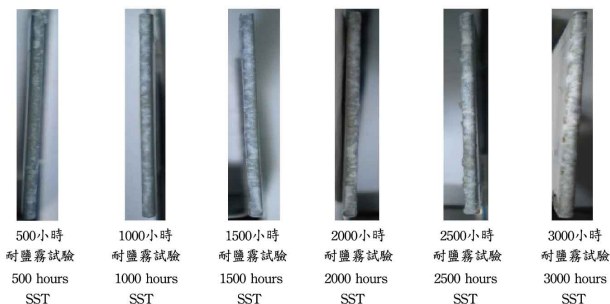
COLOR ZM鋼板也具有很優異的後加工性能，適合做各式不同的折彎及成型，因為鋼板本身具有優異的抗腐蝕性能，所以在沖孔、彎曲或成型拉伸的部分也非常不易生銹，因此更加提高所加工之製品的耐用年限。

2. Superior Bending Processing Ability

COLOR ZM steel plate also has outstanding post-processing ability, suitable for all sorts of bending and forming processing. Since the steel plate has excellent corrosion resistance, it will hardly go rusty during the punching, bending or stretch forming process. Thus, it also increases the life span of the processed products.

以下圖片分別為COLOR ZM鋼板在1T Bend 彎曲加工的鹽水噴霧試驗 (SST)

The following pictures show COLOR ZM steel plate under the salt spray test (SST) of 1T Bend processing.



從試驗的結果來看，COLOR ZM 鋼板經折彎至1T bend並經過3000小時的鹽霧試驗，在彎曲加工處依舊未產生任何的紅銹腐蝕現象，由此可見，COLOR ZM鋼板在加工成型之後，依舊能保持及優異的抗腐蝕性。

From the test results, it can be seen that COLOR ZM steel plate does not show any sign of red rust corrosion at the bending processed position when it is bent to 1T bend and undergoes 3000 hours of salt spray test. It may be concluded then that COLOR ZM steel plate can keep its excellent corrosion resistance even after processing and forming.

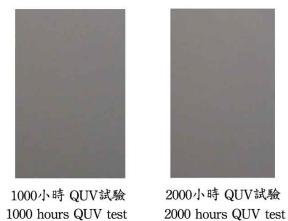
3、具有優越的耐候性

COLOR ZM鋼板也具有相當優異的耐候性能，因為鋼板本身具有優異的抗腐蝕性能，再加上表面的PVDF烤漆塗層具有高度的耐候性，可讓鋼板的顏色經過長時間的日照也不易粉化及褪色，因此讓鋼板日久如新，色彩依舊鮮豔美麗，耐用年限也隨之大大的提升。

3. Superior Weather Resistance

COLOR ZM steel plate also has excellent weather resistance. This is because of the outstanding corrosion resistance of the steel itself, in addition to the highly weather-resistant PVDF coating on the surface, so that colors of the steel plate do not easily chalk or fade even under prolonged sunshine. Therefore, the steel plate always appears new and fresh, always keeps its vivid colors, and hence its life span also increases tremendously.

加速耐候試驗 Weathering Test-QUV ASTM G53



以上圖片顯示COLOR ZM鋼板經過1000及2000小時的加速耐候試驗 (Weathering Test-QUV ASTM G53)，鋼板表面的顏色並無任何改變、褪色或粉化的狀況發生，表示其在耐候性上亦展現出優異的表現。

The above pictures show that no any color change, fading or chalking is seen on the surface of the COLOR ZM steel plate after 1000 hours and 2000 hours of weathering test - QUV ASTM G53. This points to its distinguished performance in weather resistance.

烤漆膜厚 Coating thickness :

正面面漆 Top coating on top side	正面底漆 Base coating on top side	背面面漆 Top coating on back side	背面底漆 Base coating on back side
20~90u PVDF	5~30u PU	7~18u PVDF / PE	5~20u PU

鋼板尺寸 Steel plate size :

冷軋底材 Cold-rolled base metal	熱軋底材 Hot-rolled base metal	可烤漆尺寸 Coating size
厚度 Thickness 0.25mm ~ 2.3mm	厚度 Thickness 1.6mm ~ 6.0mm	厚度 Thickness 0.25mm ~ 1.3mm

三、建議用途 Recommended End Use

彩鋼鍍鋅鋁鎂氟碳烤漆鋼板(COLOR ZM)為一高抗腐蝕及高耐候性的綠色環保鋼材，其全方位的優異性能大幅度領先目前市面上的烤漆鋼種，因此特別適用於極嚴苛的環境，如石化廠、化工廠、焚化爐或電廠等高污染環境工業區的廠房，其優異的耐強鹼性能，更適用於海岸風砂吹襲特別嚴重的沿海地區，另外，寒冷、酷熱、溫差大或終年日照強烈的區域，也非常適合，耐用年限可達30-50年之久。

本鋼板因為具有全方位的優異性能，因此大大延長了材料的使用年限，經年累月可節省許多廠房及建築物的替換及修繕的費用，可說是節能、環保又符合經濟效益的綠建材。

Pre-Painted PVDF COLOR ZM steel plate is highly corrosion-resistant and weather-resistant environment-friendly steel. Its all-round and superior performance surpasses other color coated steel products currently on the market, and so is especially suitable for extremely harsh environment like factories in the highly polluting industrial area, such as petrochemical plant, chemical plant, incinerator, or power plant, etc. With its excellent resistance to strong alkalinity, it is also suitable for use in the seacoast areas subject to serious blowing sand. Furthermore, it is very suitable for area that is cold, hot, with huge temperature changes or year-round sunshine. Its durable life span may go up to 30-50 years.

With its versatile and superior performance, this steel plate greatly extends the life span of the materials. It may save a lot of plant and building replacement and maintenance costs through years, and so is a really energy-saving, environmental and economical green construction material.

常用規範 Common Standards :

鍍鋅鋁鎂鍍層合金成份比例 ZAM® Percentages of elements of the coating alloy :

鋅 (Zinc)	鋁 (Aluminium)	鎂 (Magnesium)
>90%	6%	3%

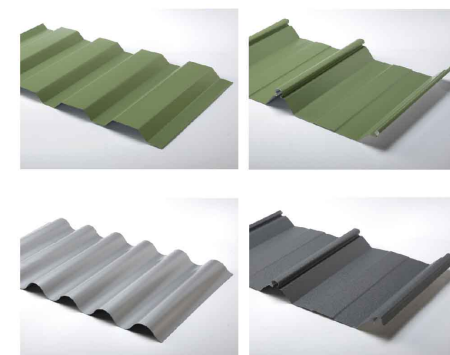
鍍層合金附著量

Adhesion mass of the coating alloy :

K18	K27
180g/M ²	275g/M ²

鋼材強度 Steel strength :

通用級 General grade	結構級 Structural grade
MSM-CC	MSM-K400
YS:170~410MPa	YS:>295MPa / TS:>400MPa



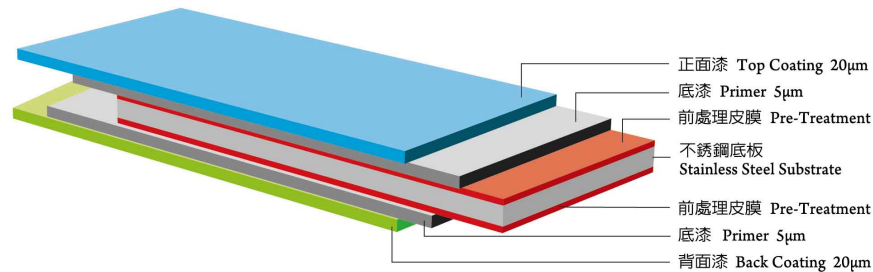
高耐候不銹鋼氟碳樹脂烤漆鋼品

PVDF Stainless Steel Pre-Painted Products

一、產品說明 Product Description

此產品採用高性能聚偏二氟乙烯樹脂(或稱氟碳樹脂),使用Kynar500®或HYLAR®5000含量70%為上塗層(Topcoat)之雙面二塗二烤(2C2B);底材搭配不銹鋼烤漆鋼品,兩者搭配具有雙重耐腐蝕性強化效果,因此不銹鋼PVDF烤漆鋼品為目前耐蝕性最佳與使用壽命最久之烤漆鋼品。

This product adopts high performance Polyvinylidene Fluoride (PVDF) and uses double-sided 2C2B system with a topcoat consist of 70% Kynar 500® or HYLAR® 5000 content. Pre-painted stainless steel products are used as substrate. The combination enhances the performance of corrosion-resistance significantly, and therefore pre-painted PVDF stainless steel products are currently with the best corrosion-resistance and durability among all the color steel products.



註:上圖所示之膜厚值未依實際比例 Remark: The graphical representation does not reflect the actual proportion.

二、產品特色 Product Characteristics

此產品底材為不銹鋼其因含有鉻,所以在金屬表面上形成細密的氧化膜,阻隔金屬與外界環境接觸,因此具有耐腐蝕性與抗氧化性的功能,無邊緣腐蝕情況,更提升了使用壽命。塗膜為PVDF塗膜具有優良的耐候性、耐潮濕性、耐腐蝕性、耐化學藥品性、耐溶劑性、耐污染性與色澤持久不易褪色性等特色。故兩者搭配相輔相成,使得此產品具有極佳的雙重保護性,因此在維護成本上費用較其他產品低,是在所有烤漆產品中耐蝕性最佳,使用壽命最久之烤漆鋼品。

The substrate of this product is stainless steel and contains chromium, so it forms a dense oxide film on the metal surface as a barrier between the metal and the outside environment. It is not only corrosion-resistant and oxidation-resistant, but its durability is also prolonged by avoiding edge corrosion. PVDF coating film has superior characteristics such as weather-resistance, humidity-resistance, corrosion-resistance, chemical-resistance, solvent-resistance, Anti-staining and long lasting color and gloss. This product is double-protected by the combination of stainless steel and PVDF, and therefore costs much less in maintenance than other products. It has the best corrosion-resistance and durability among all the color

三、建議用途 Recommended End Use

可使用範圍為複合式屋頂、重、化工業地區或惡劣環境之用途,如帷幕牆、工業廠房之屋頂側牆、發電廠房、沿海地區之招牌等。

It is applicable to composite roofs, heavy or chemical industrial or harsh environment, such as curtain walls, roofing & wall cladding of industrial plants, power plants, signs in coastal areas and so on.

四、產品規格 Product Specifications

(一)底材 (Substrate)

採用不銹鋼底材。(200系、300系、400系 2B)標準底材厚度至少須達0.3mm以上,其餘可依客戶要求。
Use stainless steel as substrate. Standard substrate thickness (for Series 200, Series 300, Series 400 2B) should be at least above 0.3mm, and the rest can be custom-made.

(二)表面處理 (Pre-treatment)

使用前處理劑於不銹鋼板表面形成細密且耐蝕的表面皮膜層。
Apply pre-treatment agent on the surface of stainless steel to form a fine and corrosion-resistant film layer.

(三)塗層系統 (Coating System)

採用雙面二塗二烤之塗層系統。
Use 2-coat-2-bake coating system on both side.

(四)正面底漆 (Top Primer)

使用防蝕性聚胺基甲酸乙酯樹脂 (Polyurethane, 簡稱PU),乾膜厚度為5µm。
Use corrosion-resistant Polyurethane (PU), and the thickness of dry film is 5µm.

(五)正面漆 (Top Coat)

使用高性能聚偏二氟乙烯樹脂塗料 (Kynar 500®或HYLAR®5000含量70%),乾膜厚度為20µm。
Use high performance PVDF coating (consist of 70% Kynar 500® or HYLAR® 5000 fluoropolymer resin), and the thickness of dry film is 20µm.

(六)背面底漆 (Back Primer)

使用聚胺基甲酸乙酯樹脂 (Polyurethane, 簡稱PU),乾膜厚度5µm。
Use Polyurethane (PU) and the thickness of dry film is 5µm.

(七)背面漆 (Back Coat)

使用高性能聚偏二氟乙烯樹脂塗料 (Kynar 500®或HYLAR®5000含量70%),乾膜厚度為20µm。
Use high performance PVDF coating (consist of 70% Kynar 500® or HYLAR® 5000 fluoropolymer resin), and the thickness of dry film is 20µm.

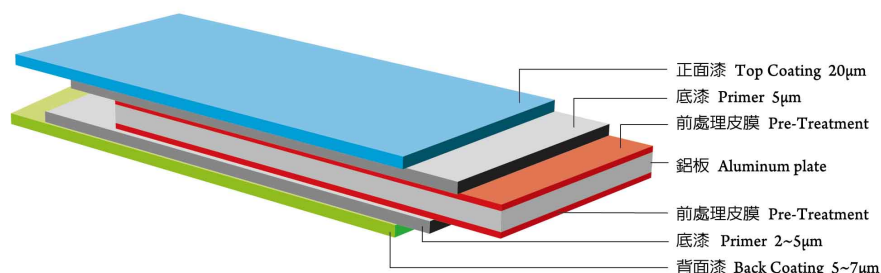
(八)正、背面漆顏色與光澤 (Color and Gloss of Top and Back Coating)

正、背面漆顏色請參考本公司之標準色板或依客戶要求,而正面光澤度一般為25% (60°角反射角,依ASTM D525)。
For color selection of top and back coating, please refer to our standard color palette or up to customers' requirements. Gloss of top coating is in general 25% (with reflection angle of 60° according to ASTM D525).

一、產品說明 Product Description

此產品採用高性能聚偏二氟乙烯樹脂(或稱氟碳樹脂)，使用Kynar500®或HYLAR®5000含量70%為上塗層(Topcoat)之雙面二塗二烤(2C2B)；底材以鋁板作為搭配，因鋁板具有多樣性的材質選擇，因此產品可設計各種不同大小尺寸模組、或是複雜的彎曲勾角設計，加上鋁板的平坦度極佳，因此可與其他材料做複合設計，可設計出超大超寬的平面，如大尺寸的帷幕牆板，進而充分滿足建築設計師在設計上的各種特殊需求。

This product adopts high performance Polyvinylidene Fluoride (PVDF) and uses 2C2B system on both side with the topcoat consist of 70% Kynar 500® or HYLAR® 5000 content. Aluminum plate is used as substrate. With various choices of materials in aluminum plates, products can be designed as different sizes and modules or with complex design of curved and angular corners. With excellent flatness of aluminum plates, it can be combined with other materials in design to create extremely large and wide planes, such as large-size curtain walls, and thus fully meets various special architectural needs.



註:上圖所示之膜厚值未依實際比例 Remark: The graphical representation does not reflect the actual proportion.

二、產品特色 Product Characteristics

此產品採用高性能聚偏二氟乙烯樹脂並搭配高耐候陶瓷顏料，一般若選擇光澤低的塗料顏色(Gloss 25%)來搭配鋁板底材，可讓產品在各種特性上發揮到極致，如：不易受各種酸(如酸雨)、鹼液侵蝕與紫外線破壞，具有優越的耐候性、耐潮濕、耐腐蝕。在加工性、耐化學藥品、耐污染性與色澤持久不易褪色等特性上，也有卓越的表現，因此也就大大降低維護的成本及費用，在一般環境下其耐用年限可達20-25年之久，另外鋁板本身也具有有良好的隔音、隔熱效果，因此應用於一些噪音較嚴重的區域也非常適合。

This product uses high performance PVDF and high weather-resistant ceramic pigments. In general, if the aluminum substrate is coated with low gloss color (Gloss25%), the product can demonstrate maximum performance in all characteristics. For instance, it is not easily damageable by various acids (such as acid rain), alkali erosion and UV ray, and has superior weather-resistance, humidity-resistance, and corrosion-resistance. It also has excellent performance on characteristics like formability, chemical-resistance, anti-staining ability and long lasting color, and can significantly reduce the costs and expenses of maintenance. In regular environment, its durability is up to 20-25 years. Aluminum plate has also good sound and heat insulation, and is suitable for very noisy regions.

三、建議用途 Recommended End Use

可使用的範圍為門板、車體、看板、圓柱、樑柱、門廊、室內裝潢、自動扶梯、天花板、建築帷幕牆、壁板、建築物外牆、包廂、電梯等。

It is applicable for door, automobile body, billboards, columns, beams, porches, interior decoration, escalators, ceilings, curtain walls of buildings, siding, facades of buildings, balcony and elevator, and so on.

四、產品規格 Product Specifications

(一)底材 (Substrate)

採用鋁捲 (JIS 1100 H16~A5052P H32)。標準底材厚度至少須達0.5mm以上，其餘可依客戶要求。

Use aluminum coils (JIS 1100 H16~A5052P H32). Standard substrate thickness should be at least over 0.5mm, and the rest can be custom-made.

(二)表面處理 (Pre-treatment)

使用前處理劑於鋁板表面形成細密且耐蝕的表面皮膜層。

Apply pre-treatment agent on the surface of Aluminum plate to form a fine and corrosion-resistant film layer.

(三)塗層系統 (Coating System)

採用雙面二塗二烤之塗層系統。

Use 2-coat-2-bake coating system on both side.

(四)正面底漆 (Top Primer)

使用防蝕性聚胺基甲酸乙酯樹脂 (Polyurethane, 簡稱PU)，乾膜厚度為5µm。

Use corrosion-resistant Polyurethane (PU), and the thickness of dry film is 5µm.

(五)正面漆 (Top Coat)

使用高性能聚偏二氟乙烯樹脂塗料 (Kynar 500®或HYLAR® 5000含量70%)，乾膜厚度為20µm。

Use high performance PVDF coating (consist of 70% Kynar 500® or HYLAR® 5000 fluoropolymer resin), and the thickness of dry film is 20µm.

(六)背面底漆 (Back Primer)

使用聚胺基甲酸乙酯樹脂 (Polyurethane, 簡稱PU)或聚酯樹脂塗料(Polyester簡稱PE)，乾膜厚度2~5µm。

Use Polyurethane (PU) or Polyester (PE), and the thickness of dry film is 2~5µm.

(七)背面漆 (Back Coat)

使用耐蝕性的聚酯樹脂或環氧樹脂塗料，乾膜厚度5~7µm。

Use corrosion-resistant Polyester or EPOXY, and the thickness of dry film is 5~7µm.

(八)正、背面漆顏色與光澤 (Color and Gloss of Top and Back Coating)

正、背面漆顏色請參考本公司之標準色板或依客戶要求，而正面光澤度一般為25% (60°角反射角，依ASTM D525)。

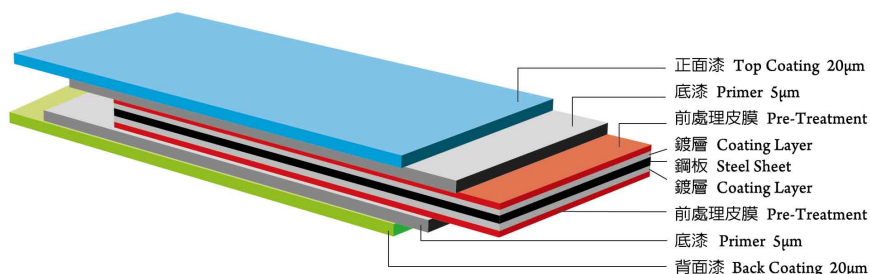
For color selection of top and back coating, please refer to our standard color palette or up to customers' requirements. Gloss of top coating is in general 25% (with reflection angle of 60° according to ASTM D525).

高耐候氟碳樹脂烤漆鋼品 PVDF Pre-Painted Products

一、產品說明 Product Description

此產品採用高性能聚偏二氟乙烯樹脂(或稱氟碳樹脂),使用Kynar 500®或HYLAR® 5000含量70%為上塗層(Topcoat)之雙面二塗二烤(2C2B);而底材可分別選用熱浸鍍鋅與鍍鋁鋅之烤漆鋼品(即塗料系統相同,底材不同)。

This product adopts high performance Polyvinylidene Fluoride (PVDF) and is 2C2B system on both side, using the topcoat consist of 70% Kynar 500® or HYLAR® 5000 content. Hot dip galvanized and Al-Zn coated steel products can both be used as substrate (that is, the coating system is the same but substrates different).



註:上圖所示之膜厚值未依實際比例 Remark: The graphical representation does not reflect the actual proportion.

二、產品特色 Product Characteristics

* 優越的耐候性、耐蝕性、耐化學藥品及耐溶劑性。

Superior weather-resistance, corrosion-resistance, chemical-resistance and solvent-resistance.

* 不易受各種酸(如酸雨)、鹼液侵蝕,且不受紫外線破壞。

Not easily damageable by various acids (such as acid rain), alkali erosion and UV ray.

* 抗污染性、優良的加工成型性、耐褪色性與維護成本低。

Superior anti-staining ability, formability, long lasting color and low maintenance costs.

* 因使用高耐候型陶瓷顏料,故塗料光澤度一般Gloss (60 degree)為25%。

Use high weather-resistant ceramic pigments, and therefore the gloss of coating is low and in general 25% (60 degree).

* 在一般環境下其耐用年限可達20年之久。

In regular environment, its durability is about 20 years.

三、建議用途 Recommended End Use

* 建築:各種嚴厲的戶外環境之建築,如屋頂及外牆板,尤其是高斜的屋頂結構或巨大的建築物,要求耐大氣污染、耐久性有強烈陽光照射的地區。

Buildings: buildings in various severe outdoor environment, such as roof and wall panels, especially for high slope roof or a huge building, and areas requiring resistance to atmospheric pollution and strong sunlight, and durability.

* 交通工業:車體外部面板、高速公路路標等。

Transportation industry: external body panels of automobiles and highway signs, etc.

* 其他:各種要求耐久性之保護面板及醫院、電子廠、實驗室等求耐蝕、防污等隔間。

Others: various protection panels requiring durability and compartments for hospitals, electronic plants and laboratories which require corrosion-resistance and anti-staining.

四、產品規格 Product Specifications

(一)底材 (Substrate)

採用熱浸鍍鋅鋼捲或鍍鋁鋅鋼捲,依JIS G3302鍍鋅層為Z18(即雙面180g/m² Min.)或JIS G3321鍍鋁鋅層為AZ150(即雙面150g/m² Min.)。標準底材厚度可依客戶要求。

Use hot dip galvanized coated or Al-Zn coated steel coils. Zinc coated layer is Z18 (i.e., double-sided and 180g/m² Min.) according to JIS G3302 or Al-Zn coated layer is AZ150 (i.e., double-sided and 150g/m² Min.) according to JIS G3321. Standard substrate thickness can be custom-made.

(二)表面處理 (Pre-treatment)

使用前處理劑於熱浸鍍鋅與鍍鋁鋅表面形成細密且耐蝕的表面皮膜層。

Apply pre-treatment agent on the surface of hot dip galvanized coated or Al-Zn coated coil to form a fine and corrosion-resistant film layer.

(三)塗層系統 (Coating System)

採用雙面二塗二烤之塗層系統。

Use 2-coat-2-bake coating system on both side.

(四)正面底漆 (Top Primer)

使用防蝕性聚胺基甲酸乙酯樹脂 (Polyurethane, 簡稱PU), 乾膜厚度為5µm。

Use corrosion-resistant Polyurethane (PU), and the thickness of dry film is 5µm.

(五)正面漆 (Top Coat)

使用高性能聚偏二氟乙烯樹脂塗料 (Kynar 500®或HYLAR® 5000含量70%), 乾膜厚度為20µm。

Use high performance PVDF coating (consist of 70% Kynar 500® or HYLAR® 5000 fluoropolymer resin), and the thickness of dry film is 20µm.

(六)背面底漆 (Back Primer)

使用聚胺基甲酸乙酯樹脂 (Polyurethane, 簡稱PU), 乾膜厚度5µm。

Use Polyurethane (PU), and the thickness of dry film is 5µm.

(七)背面漆 (Back Coat)

使用高性能聚偏二氟乙烯樹脂塗料 (Kynar 500®或HYLAR® 5000含量70%), 乾膜厚度為20µm。

Use high performance PVDF coating (consist of 70% Kynar 500® or HYLAR® 5000 fluoropolymer resin), and the thickness of dry film is 20µm.

(八)正、背面漆顏色與光澤 (Color and Gloss of Top and Back Coating)

正、背面漆顏色請參考本公司之標準色板或依客戶要求,而正面光澤度一般為25% (60°角反射角,依ASTM D525)。

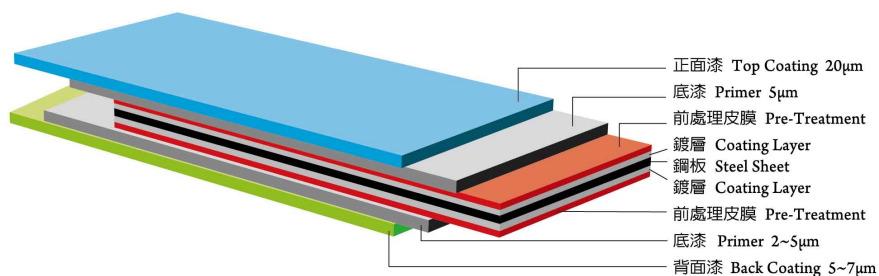
For color selection of top and back coating, please refer to our standard color palette or up to customers' requirements. Gloss of top coating is in general 25% (with reflection angle of 60° according to ASTM D525).

高耐候矽質強化聚酯樹脂烤漆鋼品 SMP Pre-Painted Products

一、產品說明 Product Description

本產品的塗膜是採用最新型矽質強化聚酯塗料(Silicone Modified Polyester, 簡稱SMP), 為上塗層之雙面二塗二烤(2C2B); 可分別選用熱浸鍍鋅鋼品或鍍鋁鋅鋼品作為底材, 此種塗料含有矽元素, 因此具有優良的耐候性、耐蝕性、在紫外線照射強烈的區域, 顏色也不易褪色。

Coating of this product uses the newest Silicone Modified Polyester (SMP), and is topcoated with 2C2B system on both side. Hot dip galvanized and Al-Zn coated steel products can both be used as substrate. The coating has silicon elements and therefore has superior weather-resistance, corrosion-resistance and the color will not easily fade even in areas with strong UV ray.



註:上圖所示之膜厚值未依實際比例 Remark: The graphical representation does not reflect the actual proportion.

二、產品特色 Product Characteristics

此項產品隨著矽含量的成份越高, 它的耐候性也愈好, 但是相對其加工性就會比較差, 因此較適用一次性的加工製程, 多次加工的製程則較不適用, 但因為其價位比起PVDF塗料產品較為低廉, 但整體表現又比一般PE塗料產品來得優越, 因此在一般中度污染的区域, 此項產品是個非常好的選擇, 在正常使用下耐用年限可達10年之久。

With more silicon content, this product has better weather-resistance but worse formability. Therefore it is more applicable to one-time processing production, and not so suitable for multi-processing production. Because it is cheaper than PVDF coatings and has superior overall performance compared to regular PE coatings, so in medium pollution areas, this product is a very good choice. Under normal use, its durability is up to 10 years.

三、建議用途 Recommended End Use

適用於中等污染的工業區、或紫外線較強烈的環境區域等建築物之屋頂、牆板、車庫、儲存室或落水管等用途。

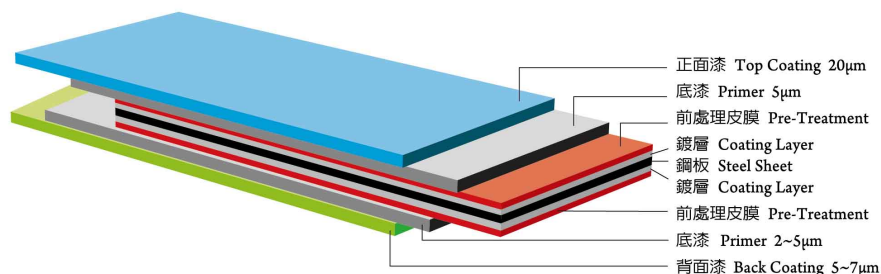
For roof, siding, garage, storage room or downspout of buildings in medium polluted industrial areas, or intensive UV ray areas.

智慧抗靜電樹脂烤漆鋼品 Anti-Electrostatic PE Pre-Painted Products

一、產品說明 Product Description

此產品採用特殊之導電性顏料配合最新改良之聚酯樹脂 (Polyester) 塗料為面漆, 並搭配抗靜電塗料專用之底漆 (Primer), 以二塗二烤 (2C2B) 之製程生產, 而底材可分別選用熱浸鍍鋅與鍍鋁鋅之烤漆鋼品 (即塗料系統相同, 底材不同), 產生抗靜電效果的最佳鋼品。

This product uses special conductive pigments to match with the newly improved Polyester coating as surface finish, combines with specialized primer for anti-static coating, and is produced with the manufacturing process of 2-coat-2-bake (2C2B). Hot dip galvanized coated and Al-Zn coated steel products can both be used as substrate (that is, the coating system is the same but substrates different) to produce the best anti-static steel product.



註:上圖所示之膜厚值未依實際比例 Remark: The graphical representation does not reflect the actual proportion.

二、產品特色 Product Characteristics

空氣對流的摩擦、人員的走動時衣服的磨擦或灰塵中之帶靜電, 就會產生靜電聚集。而一般烤漆層, 係由不導電高分子聚合物所組成, 靜電荷會被積存在烤漆鋼板表面, 造成電子元件之不良作用; 當靜電積存過多時, 可能因放電而產生火花, 造成可燃性氣體的爆炸、照相軟片的感光等破壞, 其對製程穩定及工作環境安全的影響不可謂不大。而本產品由於烤漆層中加入導電顆粒而成為半導體, 具有抗靜電效果, 可防止半導體電子元件遭受靜電的破壞及粉塵、細菌吸附所造成的危害, 因此極適合此種環境的使用。

Friction between air flow, friction between cloth during walking or static electricity among dust can be accumulating electrostatics. Regular paint coating layers are composed with non-conductive high polymers and so electrostatic charge is accumulated on the surface of color steel, which results in adverse effects of electronic components. When the accumulation of static electricity becomes excessive, it may generate sparks due to discharge and cause the explosion of flammable gases, damage sensitization of photographic film and so on. Therefore it has great impact on the stability of production process and the safety of working environment. Because conductive granules are added into the coating layers of this product, it becomes a semiconductor that is anti-static and can prevent electronic components from damage due to electrostatic electricity and hazard of dust and bacteria adsorption. Thus it is very suitable for these kinds of environment.

三、建議用途 Recommended End Use

可適用於半導體廠房內部隔間、電子零件廠、醫院、生化科技、製藥廠、軟片製造、食品加工廠、溶劑塗料、可燃瓦斯、等易燃之環境或對環境之安全衛生有特殊要求者。

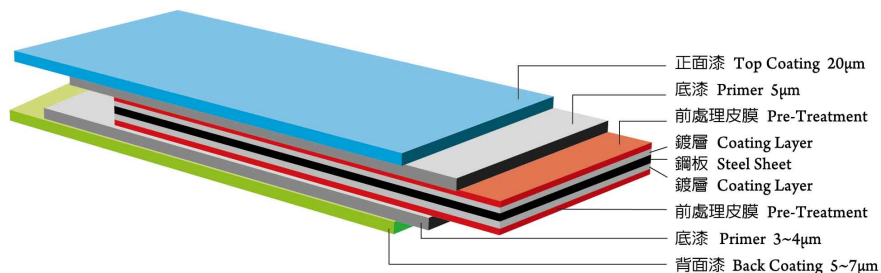
It can be applied to compartments within semiconductor plants, electronic parts plants, hospitals, biotechnology, pharmaceutical factories, film manufacturers, food processing factories, coating and solvents, flammable gas, and other flammable environment, or environment with special safety and health requirements.

智慧抗菌環保樹脂烤漆鋼品 Anti-Microbial PE Pre-Painted Products

一、產品說明 Product Description

此產品採用特殊長效穩定之抗菌劑搭配最新改良之聚酯樹脂(Polyester)塗料為面漆，以二塗二烤(2C2B)之製程生產，而底材可分別選用熱浸鍍鋅與鍍鋅鋅之烤漆鋼品(即塗料系統相同，底材不同)，產生抗菌效果的最佳鋼品。

This product uses special antimicrobial agent that is persistent and stable, together with newly improved Polyester coating as the surface finish. It is produced with the manufacturing process of 2-coat-2-bake (2C2B). Hot dip galvanized coated and Al-Zn coated steel products can both be used as substrate (that is, the coating system is the same but substrates different) to produce the best antimicrobial steel product.



註:上圖所示之膜厚值未依實際比例 Remark: The graphical representation does not reflect the actual proportion.

二、產品特色 Product Characteristics

隨著生活水準的提升，環保意識的抬頭，人們開始注意週遭的環境以及可能帶來的危害，為提升生活環境、降低環境污染及細菌危害，故研發出長時效之抗菌鋼品，使之能應用於居家、生活中，提升生活舒適度。本產品是選擇適當的塗料，在其中添加抗菌劑，使鋼品表面形成持久的抗菌塗膜，不會被沖洗或擦掉，而抗菌劑對人體或環境亦不會造成任何的傷害，因此能有效抑制細菌生長，以避免因細菌而造成異味、污漬、甚至是食物中毒及過敏等之威脅。

As living standards improve and environmental awareness arises, people pay more attention to the surrounding environment and its potential hazards. To enhance the living environment, reduce environmental pollution and bacterial hazards, persistent antimicrobial steel products are developed for using at home and in daily life to upgrade living comfort. This product selects the proper coating and add with the antimicrobial agent to form the long-lasting anti-bacterial coating on the steel surface that cannot be washed away or wiped off. The antimicrobial agent will not cause any harm on human body or the environment. It can effectively inhibit the growth of bacteria to avoid odor, stains, and even the threat of food poisoning and allergy caused by bacteria.

三、建議用途 Recommended End Use

可適用於學校、戲院、辦公室、博物館、醫療院所、空調水塔冷凍機設備、寵物動物房舍、高級建築物室內側壁、家電用途、風管、門板、車庫門板、冷凍庫、屋頂、邊牆、住家、及其它公共場所與大眾運輸系統等易受病菌侵襲，更需要抗菌鋼品的保護。

It is suitable for schools, theaters, offices, museums, hospitals, equipment like air-conditioner, water tower and refrigerator, houses for pet and animals, interior walls of deluxe buildings, home appliances, air duct, door, garage door, freezer, roof, side walls, residence, and other public places and public transportation systems that can be easily attacked by bacteria. These are places especially need the protection of anti-bacterial steel products.

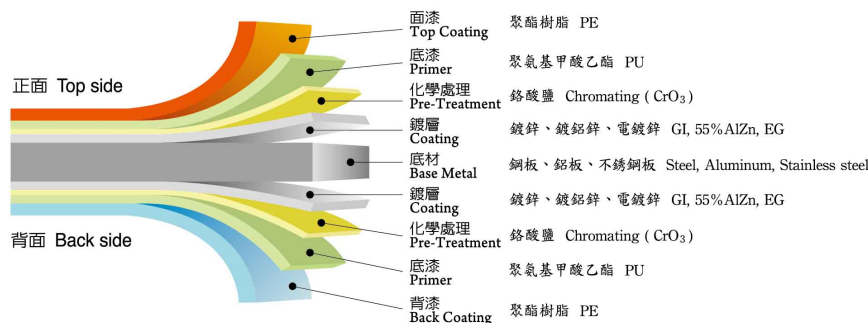
晶鑽藝術樹脂烤漆鋼品 Crystal Diamond Resin-coated Decorative Steel Products



一、產品說明 Product Description

凱景晶鑽藝術樹脂烤漆鋼品採用獨特之樹脂顆粒配方與應用表面硬化技術調配的特殊面漆聚酯樹脂(Polyester)塗料，經過控制精密的溫度烘烤使其表面產生立體的網狀紋路與細紋條狀皺紋，創造出有如鑽石般的視覺藝術效果及精緻的質感。本產品在彎曲加工及耐刮、耐磨耗部份的性能是特別的優異，耐候性與抗腐蝕性也更超越一般的PE烤漆鋼板，所以非常適用於嚴苛度較高的加工如琉璃鋼瓦、快速捲門等用途或是需要特殊造型的設計使用，如室內裝飾板，金屬天花板等。

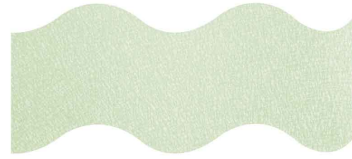
Kai Ching's Crystal Diamond resin-coated decorative steel products adopt a unique resin granule formula and a special top coating polyester paint by applying surface hardening technology. After baking under precisely controlled temperature, 3D web lines and fine strip wrinkles are formed on the sheet surface to create a diamond-like visual art effect and refined quality. These products are especially excellent in bending process characteristics, scratch resistance and abrasion resistance. In addition, their weather resistance and corrosion resistance are superior to those of ordinary PE coated sheet steel. As a result, they are very suitable for more critical processing applications such as glazed steel tile, fast roll-up door, etc. or special design applications such as interior decoration panel, metal ceiling panel, etc.



色板 Color Sample



珍珠白 WG-3YM Pearl white WG-3YM



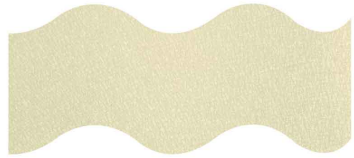
砂岩白 MD-3CM Sandstone white MD-3CM



白金銀 SF-34N Platinum silver SF-34N



鐘乳白 WG-3UM Limestone white WG-3UM



琥珀黃 CB-37M Amber yellow CB-37M



翡翠綠 GH-3PM Emerald green GH-3PM



岩石灰 GJ-3JM Stone gray GJ-3JM



水晶藍 BJ-3RM Crystal blue BJ-3RM



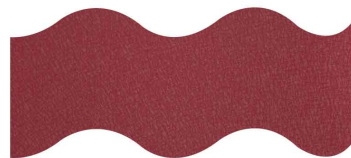
青銅綠 GH-3NM Bronze green GH-3NM



石榴紅 BN-38M Garnet red BN-38M



金剛黑 BH-3UM Diamond black BH-3UM

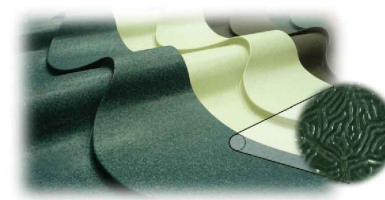


珊瑚紅 OR-3BM Coral red OR-3BM

二、產品特色 Product Characteristics

1、充滿立體質感及藝術視覺的鋼板表面

晶鑽烤漆鋼板表面的立體紋路及鑽石般的結晶，讓鋼板呈現出特殊優美的質感，若應用於戶外屋頂及牆面板，經過陽光不同角度的折射，能讓鋼板呈現出閃閃發亮的美麗造型，若應用於室內裝潢建材，其多樣化的顏色可讓牆面及天花板呈現3D立體的視覺效果，讓設計的造型更加的活潑且具有時尚的質感。



1. Sheet steel with a 3D quality and artistic effect

The 3D texture and crystals-like on the surface of Crystal Diamond resin-coated steel sheet make the sheet steel exhibit a unique graceful quality. When used for outdoor roofing and wall panel applications, the refraction of sunlight at different angles can make the sheet steel present beautiful shining styles. When used as an interior decoration material, its diversified colors can make walls and ceilings display a 3D visual effect, adding a more lively touch and chic quality to the design.

2、優異的耐候性及色彩保持性

晶鑽烤漆鋼板的膜厚比一般PE烤漆鋼板的膜厚多三分之一倍，加上表面立體的紋路結晶，因此能有效的阻隔紫外線的照射，讓鋼板經年累月不容易褪色並保持色彩的鮮豔度，使得耐候性大幅的提高。

2. Excellent weather resistance and color fastness

The film thickness of Crystal Diamond coated sheet steel is 1/3 greater than that of ordinary PE coated sheet steel. In addition, it has 3D lines and crystals on its surface. As a result, it can effectively block UV rays to protect the sheet steel from fading, keep color richness for long years and improve weather resistance significantly.



3、具有優異的耐刮及耐磨耗特性

晶鑽烤漆鋼板採用獨特之樹脂顆粒配方與應用表面硬化技術調配的特殊面漆，並經過精密的溫度控制烘烤表面所產生立體紋路及結晶具有很高的硬度，因此鋼板本身具有非常優異的耐刮及耐磨耗特性。

3. Excellent scratch and abrasion resistance

Crystal Diamond coated sheet steel adopts a unique resin granule formula and a special top coating by applying surface hardening technology. Furthermore, the 3D texture and crystals formed on its surface after temperature-controlled baking provide very high hardness. Therefore, the sheet steel has excellent scratch

鉛筆硬度試驗 Pencil Hardness Test, ASTM D3363

試驗結果顯示，鋼板經過鉛筆硬度試驗鋼板表面硬度可高達2H，與一般光面的PE鋼板硬度只能達F左右，晶鑽鋼板之硬度是一般鋼板的二倍之多，因此鋼板非常不容易被刮傷。

The above pencil hardness test results indicate that the surface hardness of the sheet steel reaches as high as 2H while ordinary PE sheet steel reaches F only. The hardness of Crystal Diamond sheet steel is more than 2 times that of ordinary sheet steel, so it is not easily scratched.

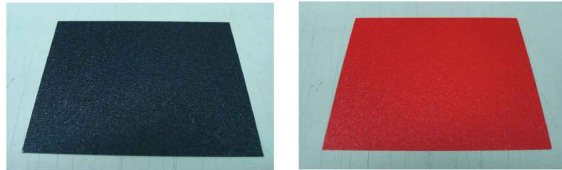


耐磨耗試驗比較 Comparison of Abrasion Resistance Test Results

以下圖片為晶鑽鋼板與他家相當產品未經耐磨耗測試前之表面狀況，圖片顯示在顏色及表面粗糙度上，雙方並無明顯的差異。

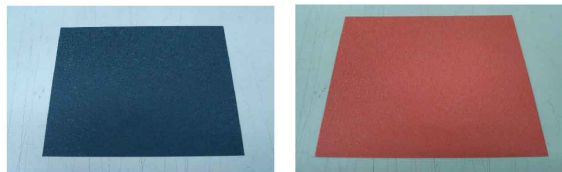
The pictures below are surface conditions of Crystal Diamond sheet steel and another manufacturer's equivalent product. The pictures indicate no significant difference in color and surface roughness between both products.

晶鑽產品耐磨耗試驗測試板(前) Abrasion resistance test specimen of Crystal Diamond product (before test)



他家相當產品耐磨耗試驗測試板(前)

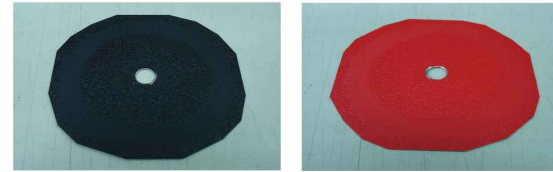
Abrasion resistance test specimen of another manufacturer's equivalent product (before test)



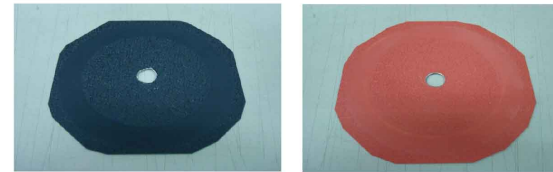
以下圖片是經過耐磨耗試驗機在同樣的測試條件下所產生的結果：圖片顯示在鋼板表面的顏色上，晶鑽鋼板與他家相當產品彼此之間已出現明顯的色差，在粗糙度上也看出他家相當產品的顆粒及紋路已被磨得較為平滑，而晶鑽鋼板仍舊能呈現較為明顯及立體的顆粒及紋路。

The pictures below are results of an abrasion tester under the same testing conditions: The pictures indicate a significant difference in surface color between Crystal Diamond sheet steel and the other manufacturer's equivalent product. In roughness, the grains and lines of the other product were worn smoother while Crystal Diamond sheet steel displayed clearer 3D grains and lines.

晶鑽產品耐磨耗試驗測試板(後) Abrasion resistance test specimen of Crystal Diamond product (after test)



他家相當產品耐磨耗試驗測試板(後) Abrasion resistance test specimen of another manufacturer's equivalent product (after test)



凱景晶鑽與他家相當產品耐磨耗試驗測試之差異量

Difference in abrasion test results between Kai Ching's Crystal Diamond and another manufacturer's equivalent product

試片 Specimen	他家產品 Other product		凱景晶鑽 Kai Ching's Crystal Diamond	
	藍 Blue	紅 Red	藍 Blue	紅 Red
重量(前) Weight (before)	18.5579g	18.2460g	23.7859g	23.8750g
重量(後) Weight (after)	18.5336g	18.2338g	23.7782g	23.8666g
差異量 Difference	24.3mg	12.2mg	7.7mg	8.4mg

耐磨耗試驗機 Abrasion Tester

測試機型：TABER/ GOTECH /GT-7012-T

測試條件：500g,CS-10 wheel, 500轉

Testing model: TABER/ GOTECH /GT-7012-T

Testing conditions: 500g, CS-10 wheel, 500 cycles



4、具有極佳的加工性與成型性

晶鑽烤漆鋼板雖然表面硬度很高，但塗料本身卻具備極佳的延展性，讓耐刮耐磨耗及良好的延展兩者的特性充分的結合，因此非常適合用於較嚴苛的彎曲加工或容易被膜具刮傷的沖壓成型等製程。

4. Excellent workability and formability

Although Crystal Diamond sheet steel has a high surface hardness, its coating has an excellent extensibility. Having fully incorporated these two excellent characteristics, it is very suitable for more critical bending process or punch forming process, etc. in which products are easily scratched by tools.

彎曲試驗 Bending Test,ASTM D4145



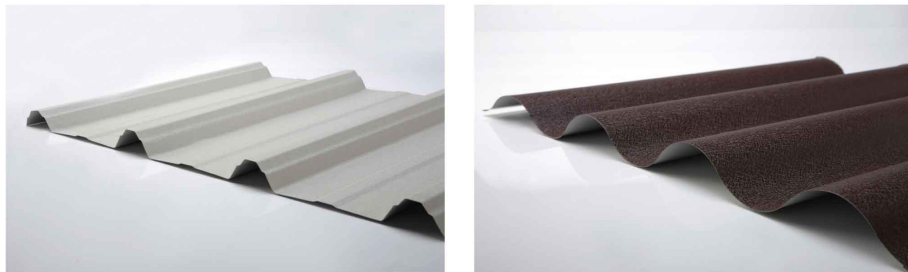
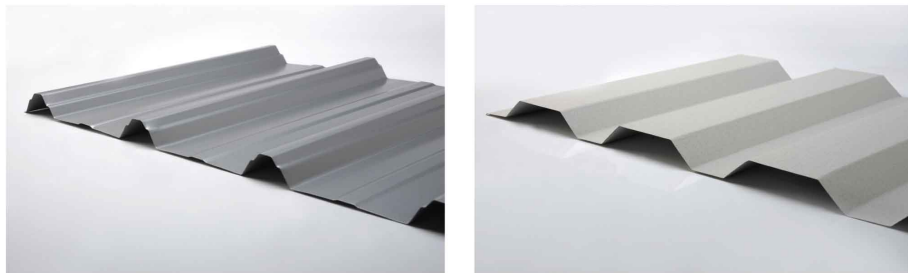
圖片顯示晶鑽鋼板經過彎曲試驗至1T Bend並無任何脫漆的狀況發生，充分顯示其優越的加工成型特性。

The picture shows no paint peeling in Crystal Diamond sheet steel after bending test to 1T bend. This reveals its excellent workability and formability.

三、建議用途 Recommended End Use

晶鑽藝術樹脂烤漆鋼板因為表面具有優美的質感，因此非常適用於室內裝飾材料或特殊造型的金屬天花板，不僅如此：其優異的耐刮耐磨耗及彎曲加工特性也非常適合用於嚴苛度較高的加工：如琉璃鋼瓦、快速捲門或特殊造型的屋頂或牆面浪板等，是一個不可多得能結合許多優良特性及功能性於一身之鋼板材料。

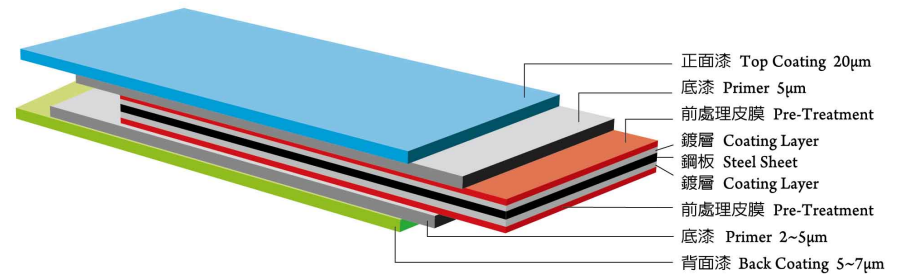
Crystal Diamond Resin-coated Decorative Sheet Steel, with its elegant surface quality, suits well as a material for interior decoration and special design metal ceiling. Furthermore, its excellent abrasion resistance and bending process characteristics make it ideal for more critical processing such as glazed steel tile, fast roll-up door, special roofing, corrugated wall panel, etc. It is a rare and recommended sheet steel material that combines multiple superior characteristics and applications.



一、產品說明 Product Description

此產品採用特殊之耐候性樹脂顆粒配方搭配最新型之聚酯樹脂(Polyester)塗料，以二塗二烤(2C2B)之製程生產，而底材可分別選用熱浸鍍鋅與鍍鋅之烤漆鋼品(即塗料系統相同，底材不同)。經由特殊配置塗裝輥輪塗裝，使得塗膜表面產生極為低光之高級質感與立體紋路之藝術質感，且具極佳之產品加工性能。

This product adopts the special formula of weather-resistance resin particle, used with the new Polyester coating, and is produced with 2-coat-2-bake (2C2B) procedures. Hot dip galvanized coated and Al-Zn coated steel products can both be used as substrate (that is, the coating system is the same but substrates different). Coated by the specially configured coating roller, the surface of coating film has extremely low gloss with excellent quality and 3D texture. This product also has excellent performance in processing ability.



註:上圖所示之膜厚值未依實際比例 Remark: The graphical representation does not reflect the actual proportion.

二、產品特色 Product Characteristics

- * 物化性與耐候性較一般PE烤漆鋼板產品優良。
- * 其表面極低光澤、具有質感的觸感與外觀造型佳。
- * 表面硬度強化、耐刮性與耐磨耗性提升，可有效提高加工工作效率與產品使用壽命。
- * 有極佳的加工性與成型性。
- * 在耐藥品性與耐水性具有提升的效果。
- * Its physical, chemical resistance and weather-resistance are better than general PE color steel products.
- * Its surface has very low gloss, soft touch and good appearance.
- * It has enhanced surface hardness, wear-resistance and scratch-resistance, which may improve the efficiency of processing and durability.
- * It has excellent processing and forming abilities.
- * It has improved chemical-resistance and water-resistance.

三、建議用途 Recommended End Use

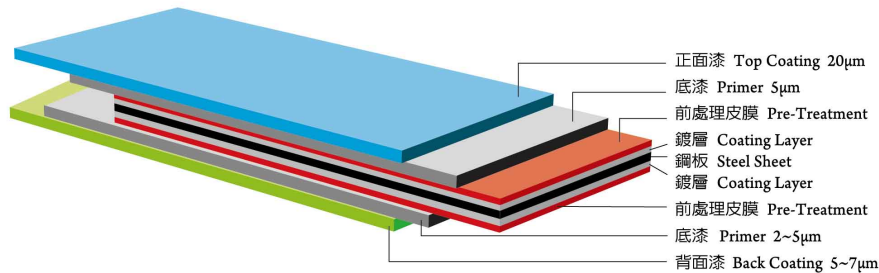
可適用於裝飾門板、高級建築物室內牆壁、天花板等室內用途，亦可使用於戶外如鋼瓦、屋頂、高耐磨性捲門等。

It is suitable for interior applications such as decorating door, interior walls of deluxe buildings, and ceilings. It can also be used for outdoor purposes such as steel tiles, roof, and wear-resistant rolling doors.

一、產品說明 Product Description

此產品採用獨特之樹脂顆粒配方與應用表面硬化技術調配的特殊面漆聚脂樹脂 (Polyester) 塗料，以二塗二烤 (2C2B) 之製程生產，而底材可分別選用熱浸鍍鋅與鍍鋁鋅之烤漆鋼品 (即塗料系統相同，底材不同)。經由塗裝輾輪塗裝，藉著不同之鏈結反應速率使得塗膜產生收縮與細如絨毛之皺紋，賦予產品極佳觸感與多樣變化之外觀，提升品質質感與高級價值感，立體紋路的藝術質感與極佳的加工性能。

This product uses a special surface Polyester coating made with a unique formula of resin particle and the surface hardening technology is applied. It is produced with 2-coat-2-bake (2C2B) procedures. Hot dip galvanized coated and Al-Zn coated steel products can both be used as substrate (that is, the coating system is the same but substrates different). Being coated by the coating roller and through different rates of bonding reaction, the coating film contracts and generates wrinkles that are fine as hair, and gives the appearance of product an excellent touch and diverse variations. It has enhanced quality, high value and 3D textures like a fine work of art, and excellent processing ability.



註:上圖所示之膜厚值未依實際比例 Remark: The graphical representation does not reflect the actual proportion.

二、產品特色 Product Characteristics

本產品的絨毛皺紋塗膜使得表面硬度強化，因此也讓鋼板表面的耐刮性及耐磨耗性大幅的提昇，顏色可調出極低之光澤，搭配表面顆粒特有的柔軟觸感，使外觀達到優美的質感，另外，此產品也具有極佳的加工性與成型性，特別適合去做一些特殊造型的琉璃鋼瓦或牆板，耐候性及色彩保持度也非常好。

The wrinkles of the coating surface strengthen the surface hardness of this product, and substantially improve scratch-resistance and wear-resistance of the steel sheet surfaces. Color can be adjusted to have extremely low gloss. Together with the unique soft touch of the surface particles, the product appears in graceful quality. In addition, the product has excellent processing and forming abilities, and is particularly suitable for glass steel tile or wall panels with special shapes. It also has very good weather-resistance and color persistence.

三、建議用途 Recommended End Use

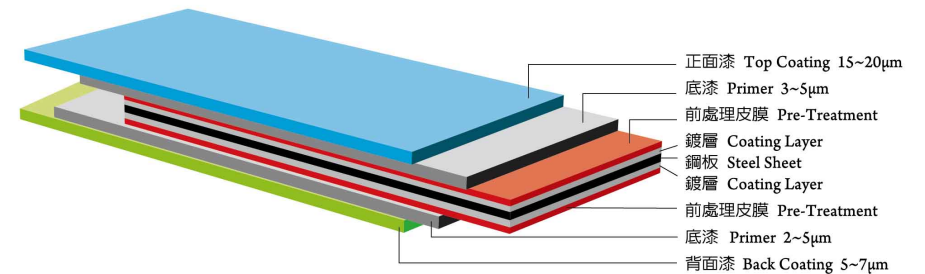
可適用於裝飾門板、高級建築物室內牆壁、天花板等室內用途，亦可使用於戶外如琉璃鋼瓦、屋頂及高耐磨性的捲門等。

It is suitable for interior applications such as decorating doors, interior walls of deluxe buildings, and ceilings. It can also be used for outdoor purposes such as steel tiles, roof, and wear-resistant rolling doors.

一、產品說明 Product Description

採用最新型改良的聚脂塗料 (Polyester 簡稱 PE) 為上塗層 (Topcoat) 之雙面二塗二烤 (2C2B)；而底材可分別選用熱浸鍍鋅與鍍鋁鋅之烤漆鋼品 (即塗料系統相同，底材不同)。均具有良好的輾輪成形性、耐候性及室外穩定性，同時擁有多樣亮麗之色彩。

This product adopts the newly improved Polyester (PE) as the double-sided 2C2B topcoat. Hot dip galvanized coated and Al-Zn coated steel products can both be used as substrate (that is, the coating system is the same but substrates different). It has very good roll forming ability, weather-resistance and outdoor stability, and also has various bright colors.



註:上圖所示之膜厚值未依實際比例 Remark: The graphical representation does not reflect the actual proportion.

二、產品特色 Product Characteristics

- * 使用於面漆，其綜合效能與價格特性為市面上使用最多的面漆系統。
- * 廣泛運用於面、背漆具優異附著性與價格經濟。
- * 滾輪成形性優，易於多次加工成型。
- * 表面色澤與光澤性要求選擇性較大。
- * 一般環境防蝕年限可長達7~8年。

- * It is used as surface finish, and it is the most commonly adopted coating system on the market for its comprehensive performance and price.
- * It is widely used in top and back coatings, and is with excellent adhesion and affordable price.
- * It has excellent roll forming ability, and is easy for multiple processing and forming.
- * It offers more selections of surface color and gloss.
- * Its corrosion-resistant lifespan in normal environment can go up to 7~8 years.

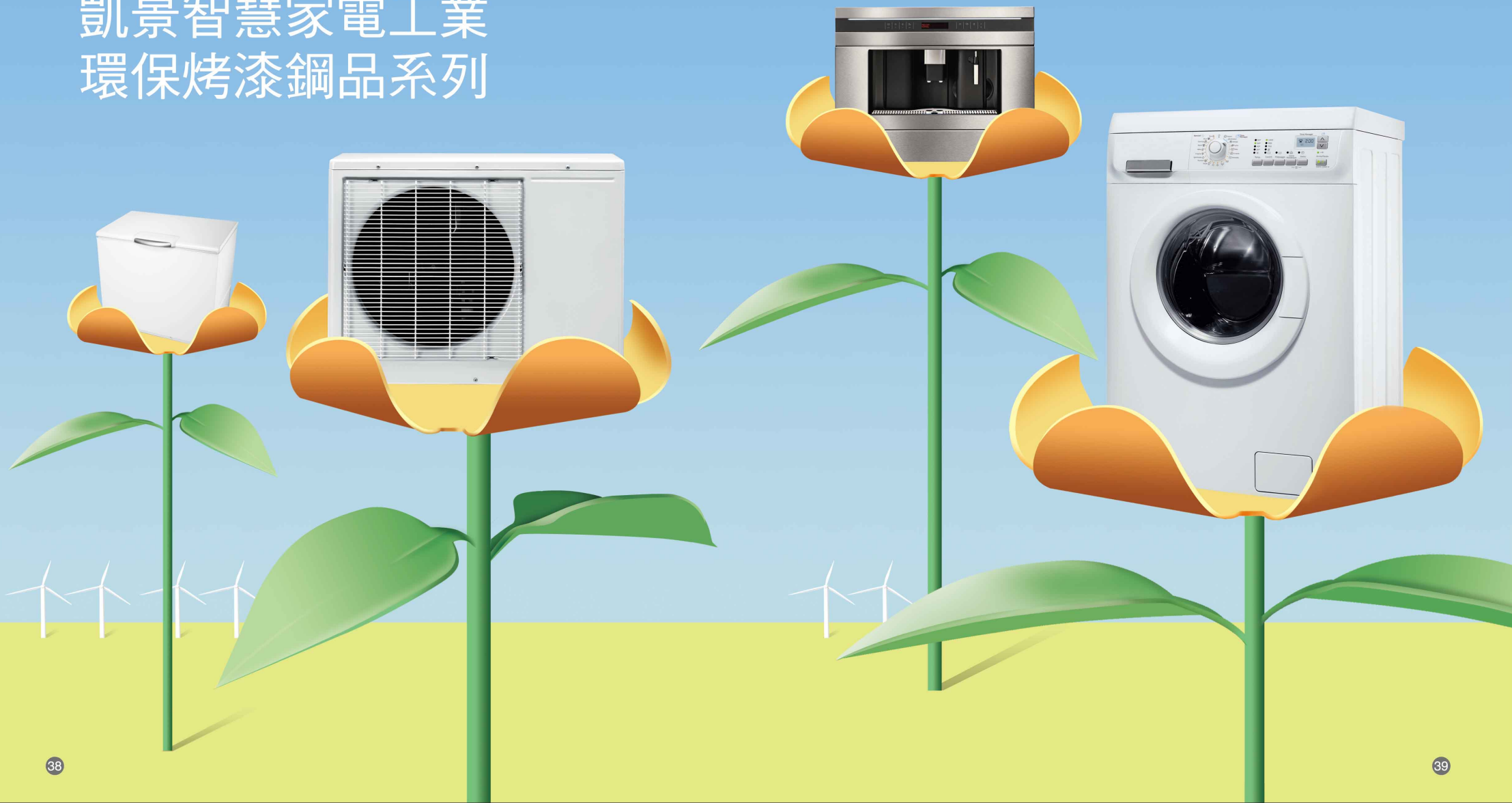
三、建議用途 Recommended End Use

此產品適用於一般輕工業區、商業區、住宅區、郊區、鄉村等建築物之室外用途的屋頂、牆板、車庫、捲門、圍牆、儲存室等與室內用途的窗軌、隔間板、天花板等使用。

This product is suitable for outdoor roof, siding, garage, rolling doors, walls, storage rooms and indoor curtain tracks, compartment plate and ceilings of buildings in general light industrial, commercial, residential and suburban areas, and countryside.

Kai Ching
Environmental Friendly Pre-Painted Products
for Industrial & Home Appliance

凱景智慧家電工業
環保烤漆鋼品系列



一、產品特色 Product Characteristics

鋼板正面採用最新型高加工聚酯塗料 (Polyester 簡稱PE)，表面以香檳金、銀粉、黑砂皮或超高光澤(光澤度達90%以上) 烤漆，以及創造如鑽石般閃亮表面的的晶鑽系列烤漆，使之兼具有「感官與質感」之外觀，讓成品呈現如精品般的高級感。背面可搭配此PE塗料做雙面二塗二烤(2C2B)，亦可搭配透明且低電阻的耐指紋皮膜的無銻環保塗料，具有超低電阻、表面平整光滑、摩擦係數小、等優點，並使成型品內面有適當導電性，進而避免電磁波輻射等問題，產品已通過ISO9001、ROHS等多項國際性認證，經SGS檢驗符合歐盟環保規範要求。

The top side of this steel sheet uses the latest Polyester (PE) coating with high processing ability. The surface is pre-painted with champagne gold, silver, black sand texture or high gloss (more than 90% gloss) coating, and creates a shiny surface as diamond. The crystal diamond series pre-painted products has a "sensual and textural" appearance, which gives products a high-class appearance like the fine works of art. The back side can be processed with 2-coat-2-bake (2C2B) system on both side to match the PE coating, and can also use chrome-free coating, which has a transparent, low electric resistance and fingerprint-resistant film. It has advantages such as low electric resistance, smooth surface, small friction coefficient, etc., and makes the inner surface of products appropriately conductive to avoid problems of electromagnetic radiation. The products have passed multiple international certifications such as ISO9001 and ROHS. By SGS inspection, Meets the European Union environmental protection code requirement.



二、建議用途 Recommended End Use

適用於數位電子產品的外觀件，如數位機上盒、DVD、液晶電視背板、電腦機殼，筆記型電腦上下蓋等產品。

It is suitable for cosmetic pieces of electronic products, such as digital set-top boxes, DVD, LCD TV back, computer cases, upper and lower lids of notebooks,...etc.



It is suitable for cosmetic pieces of electronic products, such as digital set-top boxes, DVD, LCD TV back, computer cases, upper and lower lids of notebooks,...etc.



一、產品特色 Product Characteristics

鋼板採用新型高加工聚酯塗料(Polyester簡稱PE)烤漆，具有抗菌、抗油污，耐磨損等功能、表面色彩持久、鮮豔度佳，採用新型高加工聚酯塗料(Polyester簡稱PE)，另鋼板具備良好的折彎及沖壓特性，平坦度佳，適合貼膜、拉絲膜等後製程加工，產品並已通過ISO 9001、ROHS等多項國際性認證，經SGS檢驗符合歐盟環保規範要求。

The steel sheet uses the latest Polyester (PE) coating with high processing ability, and has anti-bacterial, grease-resistant and abrasion-resistant capabilities, and provides ultimate color and gloss retention. The steel sheet also has superior bending and punching abilities and good flatness, and is suitable for post-production processing such as film posting and film drawing. The products have passed multiple international certifications such as ISO9001 and ROHS. By SGS inspection, Meets the European Union environmental protection code requirement.

二、建議用途 Recommended End Use

本產品適用於冰箱面板與側板、洗衣機外殼、熱水器、微波爐、冷氣機、烤箱、空調等家電產品。

This product is suitable for home appliances such as front and side of panel of refrigeration, washing machine case, water heaters, microwave ovens, coolers, ovens, air conditioners, ...etc.

適用於冰箱面板與側板、洗衣機外殼、
熱水器、微波爐、冷氣機、烤箱、空調等
家電產品。

This product is suitable for home appliances such as
front and side of panel of refrigeration,
washing machine case, water heaters,
microwave ovens, coolers, ovens, air conditioners, ...etc.

無毒、無重金屬、環保、節能
愛地球的彩色鋼板

Toxic Free, Heavy Metals Free, Environmental Friendly,
Energy-saving, Earth care Pre-paint Products



一、產品特色 Product Characteristics

鋼板表面具有耐磨損、耐腐蝕、耐油漬、等優點，更有良好的耐候性，適用於室內、外不同的氣候、溫度環境。本產品具有絕佳的加工性能，可直接衝壓成型：包括外殼、格柵燈盤、內外框架、支架等，成品外觀高雅，並已通過ISO9001、ROHS等多項國際性認證，經SGS檢驗符合歐盟環保規範要求。

This steel surface has the advantages such as wear-resistance, corrosion-resistance and grease-resistance, and has superior weather-resistance to be used in different indoor and outdoor climates, temperatures and environment. This product has excellent processing performance and can be directly formed by pressing: including shells, grille lighting fixture, internal and external frame and holders, and has elegant appearance. The products have passed multiple international certifications such as ISO9001 and ROHS. By SGS inspection, Meets the European Union environmental protection code requirement.

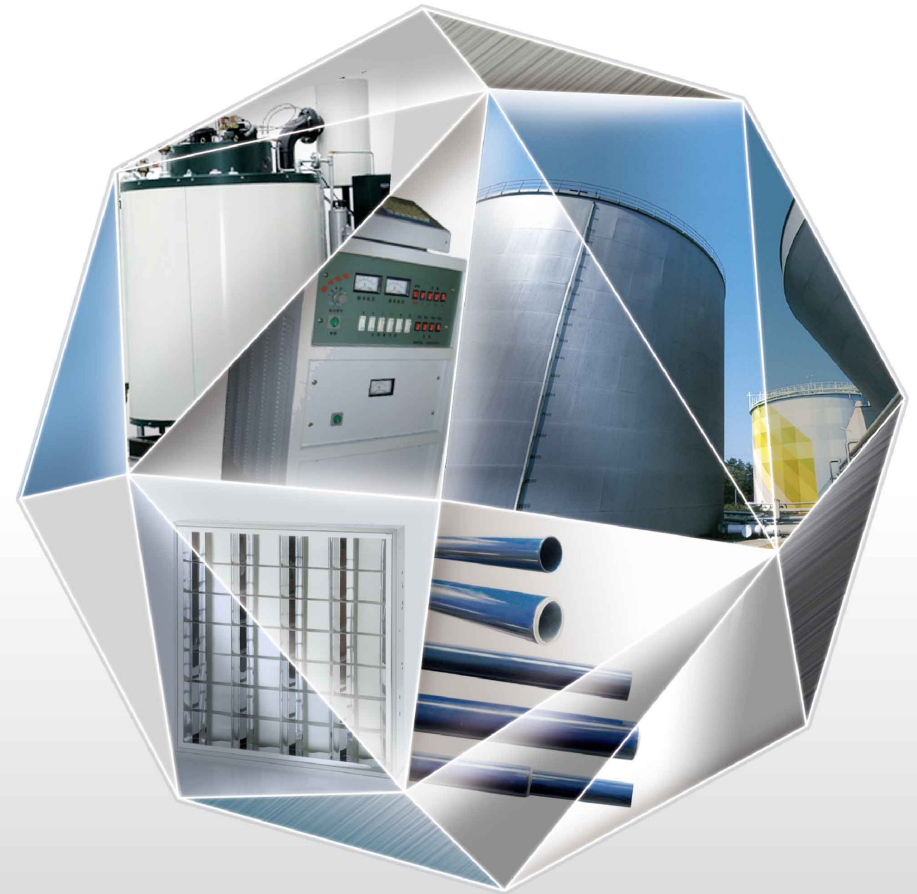
二、建議用途 Recommended End Use

此類鋼板可用於燈罩、窗軌、電器箱、熱水器、鍋爐等多項用途產品。

This type of steel can be used in multiple applications such as lampshades, curtain tracks, electrical boxes, water heaters and boilers.

無毒、無重金屬、環保、節能
愛地球的彩色鋼板

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用於燈罩、窗軌、電器箱、熱水器、鍋爐等
多項用途產品。

This type of steel can be used in
multiple applications such as lampshades,
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water heaters and boilers.

品質保證

Quality Assurance

一、前言 Preface

秉持著“品質至上”及“一次客戶、永遠客戶”的精神，凱景公司對送到每位客戶手裡的鋼板都抱持這如匠心般的呵護，為要將品質做到最好，我司也斥資添購許多精密的試驗檢測儀器，對產品及製程做精密的分析，憑藉著嚴謹的品保制度及工廠管理體系的不斷提升，為客戶達到完整的售後品質保證及售後服務。

Committed to the mission "quality first" and "customer once, client forever", Kai Ching treats the sheet steel to be delivered to each customer with the utmost care. To achieve the best quality, our company has spent sums of money in purchasing precision testing instruments to perform precision analysis on products and processes. Under a strict quality assurance system and a continuously improved factory management system, we are able to provide customers with complete after-sales quality assurance and after-sales service.

二、檢測儀器 Inspection Equipments



QUV耐候試驗機
QUV weathering tester



鹽水噴霧試驗機
Salt spray tester



紅外線測膜厚儀
Infrared coating thickness gauge



導電度計
Conductivity meter



色差計
Spectrophotometer



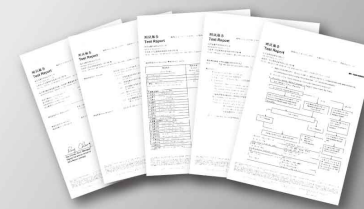
表面電阻量測儀
Surface resistance measuring machine



三、相關證書 Certificates



ISO 9001
International Organization for
Standardization 9001



RoHS 歐盟有毒物質禁用指令檢測
Restriction of Hazardous Substances Inspection



SVHC 高度關注物質檢測
Substances of Very High Concern (SVHC) inspection.

技術服務及研發

Technical Service and R&D

凱景公司擁有一套精良且完整的售後服務系統，對於客戶在產品使用上所需要的任何技術支援或問題，都以最迅速且最用心的方式提供切實的服務，不僅如此，公司更以追求藍海為目標，積極為客戶創造利潤及提升產品附加價值，不斷投入資源及人力，開發新產品，產品除延續之前在外觀及功能性上的求新求變，更積極開發各種環保節能的綠色產品，具以此優秀的研發能力，讓客戶永遠站在金字塔的頂端。

Kai Ching Corporation has a sophisticated and comprehensive after-sales service system, and provides the fastest and most effective services to our customers concerning any necessary technical support or problems in using products. Moreover, to pursuit the goal of Blue Ocean, we actively create profits for our customers, enhance the added value of products and continuously invest resources and manpower to develop new products. In addition to continuously improve the appearance and functions of products, we also actively develop a variety of eco-friendly green products. With our excellent research and development capabilities, we assure our customers the support to make them always staying at the top of the market pyramid.

Technical Service and R&D



實績介紹

Representative Applications

一、高雄捷運站 Kaohsiung Mass Rapid Transit Stations

(使用凱景高耐候鋁合金PVDF烤漆鋼品 - PVDF Aluminum alloy pre-painted product)



二、桃園機場連外捷運 Taoyuan International Airport MRT System

(使用凱景高耐候鋁合金PVDF烤漆鋼品 - PVDF Aluminum alloy pre-painted product)



三、長榮空運倉儲 Evergreen Air Cargo Services Corp.

(使用凱景彩鑽K27高耐候PVDF鍍鎂鋁鋅烤漆鋼品 - Color ZM K27 PVDF pre-painted product)



四、全聯物流園區 PX Mart Logistic Park

(使用凱景彩鑽K27高耐候PVDF鍍鎂鋁鋅烤漆鋼品 - Color ZM K27 PVDF pre-painted product)



五、桃園國際機場 Taiwan Taoyuan International Airport

(使用凱景自潔降溫PVDF烤漆鋼品 - SelfClean CoolRoof PVDF pre-painted product)



六、好市多 Costco Wholesale Corp.

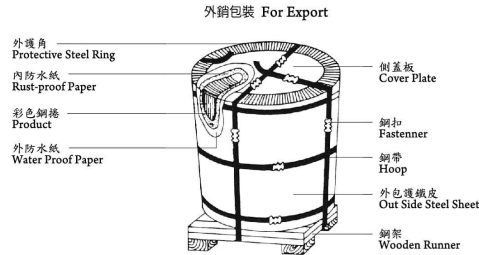
(使用凱景達龍鑽AZ150鍍鋁鋅烤漆鋼品 - 55%Al-Zn AZ150 PVDF pre-painted product)



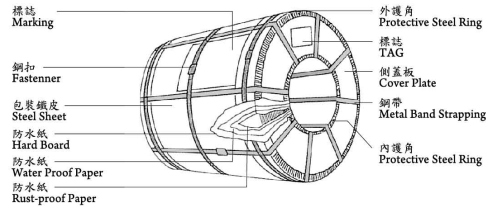
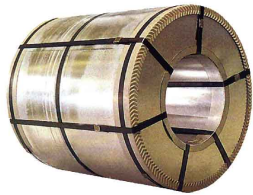
包裝與標示

Packing And Labeling

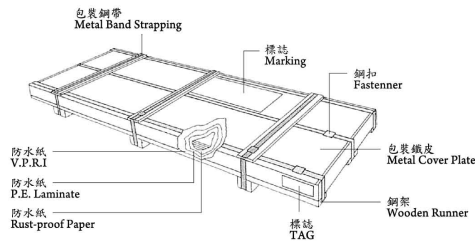
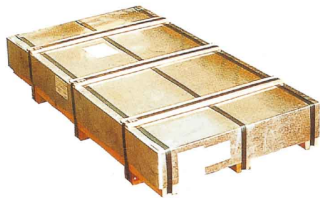
● 標準直立式包裝 Standard Vertical Packing for Steel Coil



● 標準水平式包裝 Standard Horizontal Packing for Steel Coil



● 標準裁板包裝 Standard Packing for Steel Sheet



● 彩色鍍(鋁) 鋅烤漆鋼捲標籤 Label of PPGI/PPGL Coil

凱景彩色烤漆鋼捲 KAI CHING COLOR COATED STEEL COILS <small>台灣高雄市小港區大業南路42號 TEL: (07)871-5215 FAX: (07)871-3835 http://www.kai-ching.com.tw</small>	
鋼捲號碼 (COIL NUMBER)	等級 GRADE
61140026/10	1
尺寸 SIZE	淨重 NET WEIGHT
0.286*800*C	2,935 KG
規格/鍍鋅量 SPEC/ZINC	序號 SERIAL NUMBER
CGCC-20/Z12	
面漆顏色 TOP COLOR	鋼捲長度 COIL LENGTH
BU-13000 台灣藍	1,520 M
背漆顏色 BACK COLOR	檢查員 INSPECTOR
GR-11000 灰色	陳信良

運輸及儲存

Transportation And Storage

為確保本公司彩色鍍鋅鋼捲優越的品質水準，故在處理及儲存時須避免損傷。儲存設備必須清潔，接觸面必須光滑避免凸出，鋼捲必須保護，以防止表面及端面受損。當平放在地面時，須避免滾動；在鋼捲解開時，須避免磨損；在加工時鋼捲之張力必須注意維持。

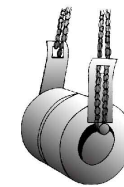
產品運送時必須持乾燥，儲存室須具抗候性。在高溫度的情況下，須有足夠的通風及空氣循環以防止水氣凝結。若鋼捲不幸受潮，必須做重捲處理，並立即乾燥以防止材料變質。

In order to ensure the excellent quality of the Prepainted Galvanized products will not be impaired during handling and storage, it is necessary to execute several important procedures.

- 1.Storage equipment must be clean and contact areas must be smooth and free from protrusions.
- 2.Coils should be prevented from surface and edge damage. When downending, avoid rolling coils on the floor. To avoid the possibility of scuffing during uncoiling, tension should be maintained. When being transported, products must be kept dry.
- 3.Products should be kept in weather-proof buildings . Under the condition of high humidity, condensation has to be kept under adequate ventilation and circulation. Should material accidentally becomes wet, it has to be processed or recoiled or dried immediately to prevent from deterioration.

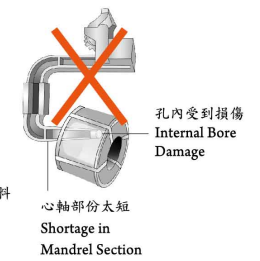
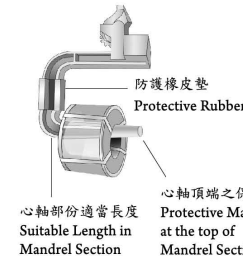
處理方式 Handling

以支撐桿穿經鋼捲中心孔吊運方式
Lifting Bar

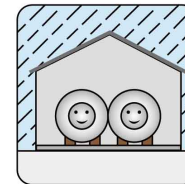


C型吊 "C" Hook

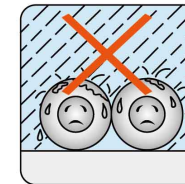
以鏈索穿經鋼捲中心孔吊運方式
Chain Sling Through Bore



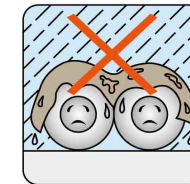
儲存方式 Storage



正確儲存方式
Correct Storage Methods



不正確儲存方式
Incorrect Storage Methods



不正確儲存方式
Incorrect Storage Methods

訂購須知

Notices for Order

烤漆產品訂購時請註明下列事項 **Prepainted Steel Sheet** :

項次 Item	註明項目 Information	範例 Example
1	品名(烤漆鋼捲) Product type(Prepainted)	烤漆鋼捲 Prepainted
2	規格記號 (JIS/ASTM或其他規格) Specification Designation (JIS / ASTM or Others)	JIS G3312 CGCC
3	保證等級(僅適用於JIS規格) Durability Designation	20
4	底材鍍層量 Coating Mass Designation	Z120
5	尺寸(厚度 X 寬度mm) Dimensions (Thickness X Width mm)	0.376mm X 914mm X Coils
6	質量(實際質量/理論質量/理論最小質量) Mass(AW/ TW/ TMW)	實際質量 Actual Mass
7	塗料種類(面漆/背面漆) Organic Coating Type Designation (Topcoat/ Backcoat)	聚脂樹脂/聚脂樹脂 PE/PE
8	顏色(面漆/背面漆) ※參考本公司顏色代號 Color (Topcoat/ Backcoat)	WH-120/ SG-310
9	塗膜厚度(面漆/背面漆) Organic Coating Thickness	20μ / 10μ
10	單卷限重(最大與最小) (噸) Minimum & Maximum Coil Weight (Metric Tonnes)	3~5MT
11	鋼捲內徑 (508或610mm) Coil Internal Diameter (mm)	508mm
12	面漆捲向(內/外) Finish Coating (In/ Out)	面漆朝內收捲 IN
13	用途 Application	屋頂或牆板 Roofing or Siding
14	保護膜 Protective Film	No
15	訂購數量(噸) Order Volume (Metric Tonnes)	200MT
16	交貨期 Delivery Date	99年12月 December, 2010
17	鋼板背面噴字 Rolling Mark	KAICHING INDUSTRY ISO9001
18	包裝方式 Packing Requirement	水平式外銷包裝 Horizontal and Steel Package
19	特殊要求(如機械性質、尺度公差、套筒) Special requirements, if any	No

(註) 客戶可提供顏色樣本供本公司生產時參考
(Remarks) Please provide sample panels if a special color is required.

附錄

Reference Data

一、JIS/ASTM 規範 **Standard**

可供應尺寸 **Sizes Available**

規格 Specification	品名 Product	鍍鋅/鍍鋅烤漆鋼捲 (PPGI/PPGL)
厚度 (Thickness: mm)		0.25~1.4
寬度 (Width: mm)		600~1270
鋼捲內徑 (ID: mm)		508/610
鋼捲外徑 (OD: mm)		780~1400
最大質量 (Max. Mass: MT)		10

熱浸鍍 55% 鋅鋼捲 種類符號 Classified Symbol	最小降伏點 Yield Point Minimum N/mm ²	最小抗拉 強度 Tensile Strength Minimum N/mm ²	最小伸長率 Elongation Minimum %					用途 Application	熱浸鍍鋅鋼捲 種類符號 Classified Symbol	最小降伏點 Yield Point Minimum N/mm ²	最小抗拉 強度 Tensile Strength Minimum N/mm ²	最小伸長率 Elongation Minimum %				
			公稱厚度 Nominal Thickness mm (t)									公稱厚度 Nominal Thickness mm (t)				
			0.25 ≤t< 0.40	0.40 ≤t< 0.60	0.60 ≤t< 1.0	1.0 ≤t< 1.6	1.6 ≤t< 6					0.25 ≤t< 0.40	0.40 ≤t< 0.60	0.60 ≤t< 1.0	1.0 ≤t< 1.6	
JIS G3322-2005	(205)	(270)	(20)	(21)	(24)	(24)	一般用 Commercial	JIS G3312-2005	-	-	-	-	-	-	-	-
CGLCC	-	-	-	-	-	-	全硬質一般用 Commercial Hard	CGGH	-	-	-	-	-	-	-	-
-	-	270	-	27	31	32	沖壓用 Drawing	CGCD	-	270	-	34	36	37	-	-
-	245	340	20	20	20	20	結構用 Structural	CGC340	245	340	20	20	20	20	-	-
CGLC400	295	400	16	17	18	18	結構用 Structural	CGC400	295	400	18	18	18	18	-	-
CGLC440	335	440	14	15	16	18	結構用 Structural	CGC440	335	440	18	18	18	18	-	-
CGLC490	365	490	12	13	14	16	結構用 Structural	CGC490	365	490	16	16	16	16	-	-
CGLC570	560	570	-	-	-	-	結構用 Structural	CGC570	560	570	-	-	-	-	-	-
ASTM 代號 ASTM Designation 2005年版	最小降伏點 Yield Point Min ksi (MPa)	最小抗拉 強度 Tensile Strength Min ksi (MPa)	最小伸長率 Elongation Minimum %				用途 Application	ASTM 代號 ASTM Designation 2005年版	最小降伏點 Yield Point Min ksi (MPa)	最小抗拉 強度 Tensile Strength Min ksi (MPa)	最小伸長率 Elongation Minimum %					
A792 (M) CS TYPES A,B,C	-	-	-				一般用 Commercial	A653 (M) CS TYPES A,B,C	-	-	-					
A792 (M) FS	-	-	-				扣鎖成型用 Lock Forming	A792 (M) FS TYPES A,B	-	-	-					
A792 (M) DS	-	-	-				沖壓用 Drawing	A792 (M) DDS	-	-	-					
A792 (M) SS Grad e33(230)	33(23.0)	45(31.0)	20				結構用 Structural	A792 (M) SS Grad e33(230)	33(23.0)	45(31.0)	20					
A792 (M) SS Grad e37(255)	37(25.5)	52(36.0)	18				結構用 Structural	A792 (M) SS Grad e37(255)	37(25.5)	52(36.0)	18					
A792 (M) SS Grad e40(275)	40(27.5)	55(38.0)	16				結構用 Structural	A792 (M) SS Grad e40(275)	40(27.5)	55(38.0)	16					
A792 (M) SS Grad e50(340)	50(34.0)	65(45.0)	12				結構用 Structural	A792 (M) SS Grad e50(340)	50(34.0)	65(45.0)	12					
A792 (M) SS Grad e80(550)	80(55.0)	82(57.0)	-				結構用 Structural	A792 (M) SS Grad e80(550)	80(55.0)	82(57.0)	-					

JIS: () 內的數值僅供參考
() The values in parentheses in the table are only for informative reference.

ASTM: A792(M)表公制, 以()數字表示
ASTM: A792(M) means metric system, and is represented with the number in ().
ASTM: A653(M)表公制, 以()數字表示
ASTM: A653(M) means metric system, and is represented with the number in ().

二、ZAM® 規範 Standard

鋅鋁鎂ZAM® 種類及符號 Types and Symbols

規格 Standard	種類 Type				適用 Application
	品種符號 Product Symboluct	—	原板分類 Base Sheet Classification	用途符號 Application Symbol	
日新規格 NISSHIN standard	MSM	—	C	C	通用 General Use
	MSM	—	C	D	拉伸用 Drawing
	MSM	—	C	E	深拉伸用 Deep drawing
	MSM	—	C	U*	超深拉伸用 Ultra-deep drawing
	MSM	—	C	K370	結構用370N級 Class 370N for structural use
	MSM	—	C	K390	結構用390N級 Class 390N for structural use
	MSM	—	C	K400	結構用400N級 Class 400N for structural use
	MSM	—	C	K440	結構用440N級 Class 440N for structural use
	MSM	—	C	K490	結構用490N級 Class 490N for structural use
	MSM	—	C	K540*	結構用540N級 Class 540N for structural use
	MSM	—	C	K570	結構用570N級 Class 570N for structural use
MSM	—	C	K590	結構用590N級 Class 590N for structural use	

鍍層附著量 (二面最小附著量) Coating mass (Min. coating mass on both surfaces)

附著量符號 (日新規格1) Mass Symbol (Nisshin standard-1)	二面3點平均 最小附著量(g/m ²) Minimum average coating mass in triple-spot test (g/m ²)	二面1點平均 點最小附著量(g/m ²) Minimum coating mass at a single spot (g/m ²)	附著量符號 (日新規格1) Mass Symbol (Nisshin standard-1)	二面3點平均 最小附著量(g/m ²) Minimum average coating mass in triple-spot test (g/m ²)
K06*	60	51	45	70
K08	80	68	60	70
K10	100	85	—	—
K12	120	102	—	—
K14	140	119	90	140
K18	180	153	120	190
K20	200	170	—	—
K22	220	187	150	230
K25	250	213	—	—
K27	275	234	190	290
K35*	350	298	—	—
K45*	450	383	300*	500

降伏點、抗拉強度及伸長率 Yield Point, Tensile Strength and Elongation

項目 Item 用途 Use	降伏點 Yield Point (N/mm ²)	抗拉強度 Tensile Strength (N/mm ²)	伸長率 Elongation	
			標記厚度t(mm) Nominal thickness	(%)
拉伸用 Drawing	—	≥ 270	0.4 ≤ t < 0.6	≥ 34
			0.6 ≤ t < 1.0	≥ 36
			1.0 ≤ t < 1.6	≥ 37
			1.6 ≤ t ≤ 2.3	≥ 38
深拉伸用 Deep-drawing	—	≥ 270	0.5 ≤ t < 0.6	≥ 36
			0.6 ≤ t < 1.0	≥ 38
			1.0 ≤ t < 1.6	≥ 39
			1.6 ≤ t ≤ 2.3	≥ 40
超深拉伸用 Ultra-deep drawing	—	≥ 270	0.6 ≤ t < 1.0	≥ 40
			1.0 ≤ t < 1.6	≥ 41
			1.6 ≤ t < 2.3	≥ 42
結構用370N級 Class 370N for structural	≥ 265	≥ 370	適用於0.4mm以上 0.4mm以下為參考值 Applicable to 0.4 mm and aboveReference only for those below 0.4 mm	≥ 18
結構用390N級 Class 390N for structural	≥ 285	≥ 390		≥ 18
結構用400N級 Class 400N for structural	≥ 295	≥ 400		≥ 18
結構用440N級 Class 440N for structural	≥ 335	≥ 440		≥ 18
結構用490N級 Class 490N for structural	≥ 365	≥ 490		≥ 16
結構用540N級 Class 540N for structural	≥ 400	≥ 540		≥ 16
結構用570N級 Class 570N for structural	≥ 560	≥ 570		—
結構用590N級 Class 590N for structural	≥ 560	≥ 590	—	

備註：深拉伸用、超深拉伸用只適用於冷軋原板。

Remark: Deep drawing and ultra-deep drawing are applicable to cold-rolled steel sheet only.

