



**宏發鋼鐵企業**  
HONGFA STEEL ENTERPRISE

**鋼結構**  
STEEL STRUCTURE

**東莞市宏發鋼鐵結構材料有限公司**  
DONGGUAN HONGFA STEEL STRUCTURE MATS. CO., LTD  
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**鋼鐵貿易**  
STEEL TRADING

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**金屬板材**  
SHEET METAL

**東莞市宏順金屬材料有限公司**  
DONGGUAN HONGSHUN METAL&MATERIALS CO., LTD  
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**宏發鋼鐵企業**  
HONGFA STEEL ENTERPRISE

**東莞市宏順金屬材料有限公司**  
DONGGUAN HONGSHUN METAL&MATERIALS CO., LTD

Http://www.hf-steel.com  
E-mail: hf@hf-steel.com

## OUR GOAL 我們的目標

我們以努力為客戶提供一貫優質的超出其期望值的產品及服務，並引領客戶需求，協助客戶塑造品牌的品牌建設專家。

我們最重要的資源是員工，我們致力於持續地為員工謀取最大的福祉，提供廣闊的發展空間，以使員工在與我們共同成長的歷程中實現自我價值。

我們將以我們的文化贏得合作伙伴的信任與尊重，並盡力平衡各相關方的利益以維護彼此的共贏空間。

我們對於社會的價值遠不僅僅在提供產品和服務中體現，還在于恪守公眾企業應然的商業倫理以及必要的無私奉獻。

We strive to provide customers with consistent high quality beyond the expectations of its products and services, customer demand and lead to help customers create brand of brand-building experts.

Our most important resource for the staff, we are committed to continuing to seek the greatest welfare of the staff, provided broad space for development, so that staff working with us to grow up in the process of achieving self-worth.

We will win our cultural partners trust and respect, and to try to balance the interests of all parties to preserve each other's space for win-win situation.

Our society far more than the value in providing products and services reflect but also to public enterprises should abide by business ethics, and ran the need for their selfless dedication.



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### 專營產品

冷軋板卷、鍍鋅板卷、電解板卷、鋁卷等鋼鐵板材。

### 合作企業

國內寶鋼、鞍鋼、馬鋼；臺灣中鋼、燐輝、盛餘；  
韓國浦項、聯合、門原、亞鋁、西南、韓鋁、中鋁  
等鋼鐵企業。

### 主營業務

鋼鐵板材的銷售，進出口貿易和代理，倉儲  
托管，剪切加工配送。

### Main products

cold rolled steel coil, galvanized steel coil, electrolysis  
steel coil, aluminum coil, etc steel plate.

### Co-operative Enterprises

Domestic: Bao steel, An steel, Ma steel; Taiwan: China steel, Yiehphui, SYSCO;  
Korea: POSCO, Union, HYUNDAI, Doowon cooperative enterprise,  
cooperative enterprise, cooperative enterprise, Chinalco, etc steel enterprise.

### Main business

Steel panel sales, Import and Export trading agent,  
Storage service, Cutting & Separating and Distribution.





## BRIEF INTRODUCTION 公司簡介

東莞市宏順金屬材料有限公司是宏發鋼鐵企業機構投資創建的核心企業之一，位於東莞市東部工業園，整合國內外市場網絡資源，興建十萬平方米的現代化工業廠房，公司主要經營各種國產鋁板、鋁卷、進口鋁板、合金板、冷軋板（SPCC）等。宏順公司產品主要分為二大塊，一塊是順應珠三角鋼鐵材料的市場需求，專業從事國內鋼鐵企業的鋼品原材料到終端用戶的開料加工及配送；一塊是隨著國際業務的拓展和 demand，整合本公司的產品資源新興開發的高端組合建築成套系列產品。隨著市場需求的日益擴大及公司不斷的投入研發和生產規模，宏順公司已逐步踏入了企業的高速增長期。

宏順公司十分注重企業文化氛圍及人才的培養，員工的內部培訓及外出受訓以提高自身素質及服務水平是公司一貫的培訓方向。誠信為本，友好合作，攜手共進，達成雙贏是宏順公司的經營理念，歡迎海內外客戶光臨參觀指導。



集團高層小區  
Group Executives Cell

Dongguan Hong Shun Metal Materials Co., Ltd. is one of the central branches that Hongfa Steel Enterprise founded. Its modern industrial warehouse of 100,000sqm meters founded by integrated the resources of market from home and abroad, where is located in East Industrial Zone of Dongguan city. There are 2 main aspects of business for the products in Hongshun, one is professional engaged in board cutting, manufacturer and distribution of steel raw material from the domestic steel enterprises for end customer which is adapted to the marketing requirement of steel raw material from the Pearl River Delta, another is development for high class series products of modular building by integrated resources of our company which is adapted to the development and requirement of the international business. Hongshun have step in the high speed progress along with the growing of marketing and production capacity and continual development.

Hongshun is always paying attention to building up the enterprise culture and human resources, always arrange internal and external training course for the staffs to improve service level. On the other hand, organize entertainment activities between the different departments or between the internal staffs and clients, in order to increase understandings and good communications each other, and then enliven enterprise culture and absorb external information's. Our managerial principals are "honesty is the core, good cooperation, go forward hand in hand, win-win achieve", welcome all the customers from home and abroad.





在創新中超越  
Transcending in innovation



市場部  
Marketing Dept



會議室  
Conference room



藍球場  
Playground



## YOUTHFUL TEAM 朝氣蓬勃的團隊

員工是企業活力的源泉。我們注重員工素質的提高和職業培訓教育。公司根據員工所處崗位要求，有計劃地安排員工參加各項理論學習和技術培訓，並且鼓勵員工自我學習，自我提高，公司上下形成了濃郁的學習氛圍。

Staff is the headspring of an enterprise's vigor. We pay attention to improving the culture quality of the staff and enhancing the job training and education. Arrange every theory and technical training by design according to different requirement of each job, and encourage self-education, self-improvement, the good study atmosphere is formed among our company.



車間全景  
View of workshop

宏順金屬板材部專業從事冷軋板、鍍鋅板、電解板、鍍鋅等各種規格鋼板、帶鋼材料及家電塗層等材料的剪切、分條等加工。同時代理多家國內外鋼廠供應的產品。客戶群以五金沖壓、機箱機櫃、電器製造等為主。為了迎合不同層面客戶需要，公司全部採用台灣進口剪切分條機組，符合國際加工標準，堅持以開料準確，保障品質，交貨準時為客戶服務理念。

Hongshun Steel Sheet department is professional engaged in cutting and separating of steel materials including cold rolling panel, galvanized panel, electrolysis panel, Zn-Al panel, all kinds of steel sheet, steel trip, steel coating sheet and so on. At the same time, as agent of steel products for steel factories from many countries. Metal stamping, chassis and electrical appliances manufacturing are main client base. For meeting requirement from all level of customers, Hongshun Steel completely adopt the cutting and separating unit imported from Taiwan which conform to the international processing criterion and insist the service philosophy of correct for cutting, Quality Assurance and on time for delivery.



大型倉庫  
Large Scale Warehouse



冷軋卷  
Cold Rolled Steel Coil



鍍鋅卷  
Galvanized Steel Coil

## RAW MATERIALS 原材料



電解卷  
Electrolysis Steel Coil



鍍鋁鋅板  
Galvalume Steel Coil



大型倉庫  
Large Scale Warehouse





大型自動平整板裁切機  
Automatic flatbed panel tailoring  
and cutting unit

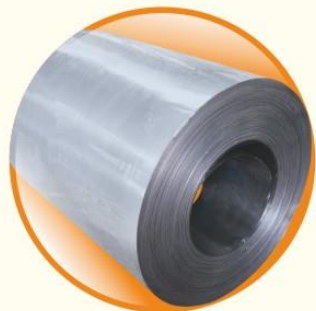


## 平板機組加工產品參數 Manufacturing products parameter of flatbed panel unit

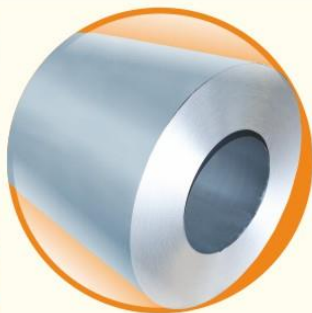
### 平板機二組 Flatbed panel unit two lines



宏順平板、分條所用原材料  
Hongshun plate, Points of the materials used



鍍鋅板  
Galvanized  
Steel Panel



冷軋板  
Cold Rolled  
Steel Coil



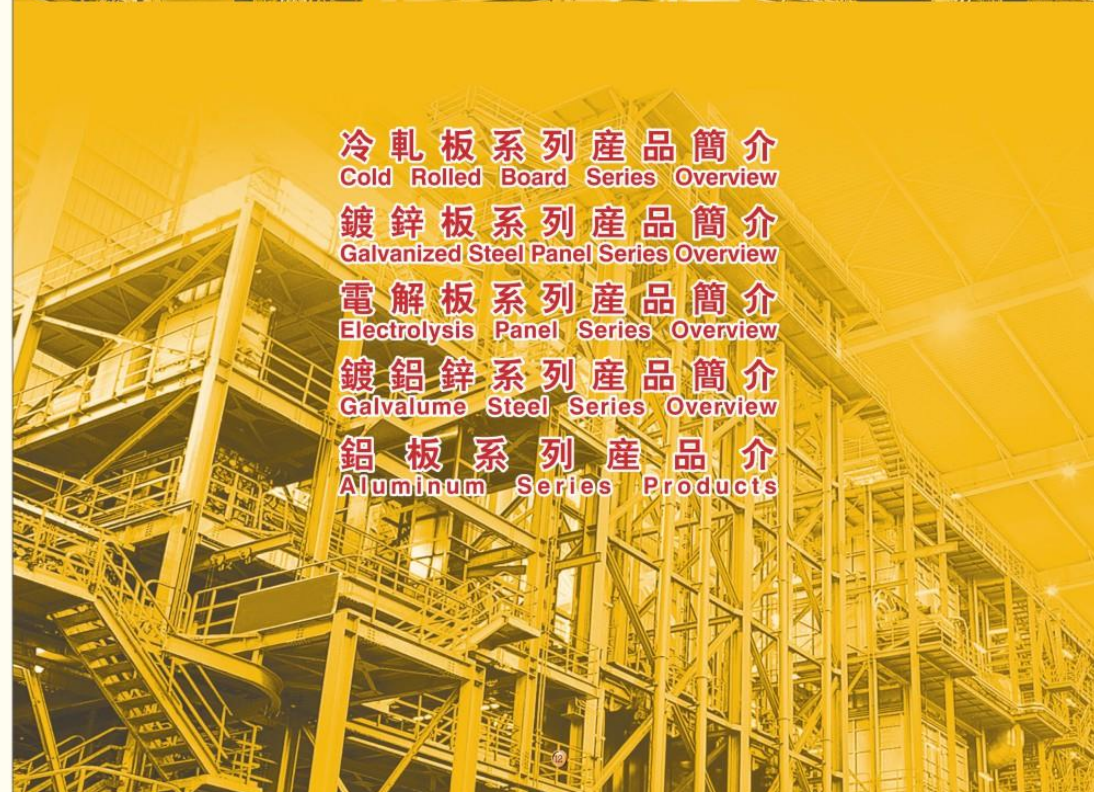
電解板  
Electrolysis  
Steel Coil



鍍鋁鋅板  
Galvalume  
Steel Coil



冷軋板系列產品簡介  
Cold Rolled Board Series Overview  
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鋁板系列產品介紹  
Aluminum Series Products





### 化學成分 Chemical composition

牌號 Grades	化學成分% Chemical composition%						
	C	Mn	P	S	An	Alt'	Ti'
SPCC	<0.12	<0.50	<0.035	<0.025	>0.020	-	-
SPCD	<0.10	<0.45	<0.030	<0.025	>0.020	-	-
SPCE, SPCCEN	<0.08	<0.40	<0.025	<0.020	>0.020	-	-
DC01(St12)	<0.10	<0.50	<0.035	<0.025	-	>0.020	-
DC03(St13)	<0.08	<0.45	<0.030	<0.025	-	>0.020	-
DC04(St14,St15)	<0.08	<0.40	<0.025	<0.020	-	>0.020	-
DC05(BSC2)	<0.008	<0.30	<0.020	<0.020	-	>0.015	<0.20
DC06(St16,St14-T,BSC3)	<0.006	<0.30	<0.020	<0.020	-	>0.015	<0.20

A: 對於牌號DC01, DC03和DC04, 當C<0.01時Alt>0.015.

b: 可以用Nb代替部分Ti. 此時Nb和Ti的總含量<0.20.

A: For grades DC01, DC03 and DC04, When the C <0.01 at Alt> 0.015.

b: Nb can be used instead of Ti. At this point Nb and the total content of Ti<0.20.

### 表面質量 Surface quality

級別 Class	代號 Code	特征 Feature
較高級的平整表面 More senior finishing the surface	FB(03)	表面允許有少量不影響成型性及塗、鍍附著力的缺陷, 如輕微的劃傷、壓痕、麻點、輕印及氧化色等。 Surface to allow a small amount of molding and does not affect Tu, plating attaching defects, such as Slight, scratches, impress, Spot, Oxidized color and the roll of color, and so on.
高級的平整表面 Good Smooth for the surface	FC(04)	產品二面中較好的一面無肉眼可見的明顯缺欠, 另一面必須至少達到FB的要求。 Second-products in a better without the obvious shortcomings visible to the naked eye, the other side must reach at least FB requirements.
超高級的平整表面 Ultra-High finishing the surface	FD(05)	產品二面中較好的一面不得有任何缺欠, 即不影響塗漆后的外觀質量或電鍍后的外觀質量, 另一面必須至少達到FB的要求。 Product of a better side than in any shortcomings that do not affect the quality of the appearance after painting or plating after the appearance of quality. Must be at least another FB requirements.



### 可供規格 Specifications for

單位 Units:mm

產品形態 Product Form	邊緣狀態 Marginalized	公稱厚度 Thickness	公稱寬度 Width	公稱長度(或內徑) Length(Or diameter)
鋼板 Plate	切邊	0.30-3.0	200-1500 230-1500	1000-6000
	不切邊			
鋼卷 Coil	切邊	0.3-3.0	130-1500	310/508/610
	不切邊			
縱切鋼卷 A longitudinal section of coil		0.3-3.0	20-900	

### 冷軋鋼板、鋼帶厚度允許偏差 Cold-rolled steel sheet, strip thickness to allow deviation

規定的最小 屈服強度 Specified minimum yield strength (Mpa)	公稱厚度 Thickness (mm)	厚度允許偏差 Thickness tolerance(mm)					
		普通精度 General accuracy PTA			高級精度 High Accuracy PTB		
		公稱寬度 Width(mm)			公稱寬度 Width (mm)		
		<1200	1200-<1500	>1500	<1200	1200-<1500	>1500
<280	0.30-0.40	±0.04	±0.05	-	±0.025	±0.035	-
	>0.40-0.60	±0.05	±0.06	±0.07	±0.035	±0.045	±0.05
	>0.60-0.80	±0.06	±0.07	±0.08	±0.045	±0.05	±0.05
	>0.80-1.00	±0.07	±0.08	±0.09	±0.05	±0.06	±0.06
	>1.00-1.20	±0.08	±0.09	±0.10	±0.06	±0.07	±0.07
	>1.20-1.60	±0.10	±0.11	±0.11	±0.07	±0.08	±0.08
	>1.60-2.00	±0.12	±0.13	±0.13	±0.08	±0.09	±0.09
	>2.00-2.50	±0.14	±0.15	±0.15	±0.10	±0.11	±0.11
	>2.50-3.00	±0.16	±0.17	±0.17	±0.11	±0.12	±0.12
	>3.00-3.50	±0.17	±0.19	±0.19	±0.14	±0.15	±0.15
280-<360	0.30-0.40	±0.05	±0.06	-	±0.03	±0.04	-
	>0.40-0.60	±0.06	±0.07	±0.08	±0.04	±0.05	±0.06
	>0.60-0.80	±0.07	±0.08	±0.10	±0.05	±0.06	±0.06
	>0.80-1.00	±0.08	±0.10	±0.11	±0.06	±0.07	±0.07
	>1.00-1.20	±0.10	±0.11	±0.12	±0.07	±0.08	±0.08
	>1.20-1.60	±0.12	±0.13	±0.13	±0.08	±0.10	±0.10
	>1.60-2.00	±0.14	±0.16	±0.16	±0.10	±0.11	±0.11
	>2.00-2.50	±0.17	±0.18	±0.18	±0.12	±0.13	±0.13
	>2.50-3.00	±0.19	±0.20	±0.20	±0.13	±0.14	±0.14
	>3.00-3.50	±0.20	±0.23	±0.23	±0.17	±0.18	±0.18
>360	0.30-0.40	±0.06	±0.07	-	±0.04	±0.05	-
	>0.40-0.60	±0.07	±0.08	±0.10	±0.05	±0.06	±0.07
	>0.60-0.80	±0.08	±0.10	±0.11	±0.06	±0.07	±0.07
	>0.80-1.00	±0.10	±0.11	±0.13	±0.07	±0.08	±0.08
	>1.00-1.20	±0.11	±0.13	±0.14	±0.08	±0.10	±0.10
	>1.20-1.60	±0.14	±0.16	±0.16	±0.10	±0.11	±0.11
	>1.60-2.00	±0.17	±0.18	±0.18	±0.11	±0.13	±0.13
	>2.00-2.50	±0.20	±0.21	±0.21	±0.14	±0.15	±0.15
	>2.50-3.00	±0.23	±0.24	±0.24	±0.15	±0.17	±0.17
	>3.00-3.5	±0.24	±0.27	±0.27	±0.20	±0.21	±0.21

**鍍鋅板產品特點**  
Galvanized Steel Panel Feature

項目 Item	特征 Feature
鍍層種類 Type of coating	純鋅 Galvanized
	鋅鐵合金 Zinc ferroalloy
表面結構 Surface structure	正常鋅花 Regular Spangle
	零鋅花(鍍層不含鉛) Zero Spangle
	光整鋅花 Skinpass Spangle
	小鋅花 Small Spangle
鍍層形式 Coating forms	純鋅等厚鍍層40/40-225/225g/m <sup>2</sup> Pure zinc, and other thick coating 40/40-225/225 g/m <sup>2</sup>
	純鋅差厚鍍層30-150(每畫)g/m <sup>2</sup> Zinc coating 30-150 (a painting) g/m <sup>2</sup>
	鋅鐵合金鍍層(等厚)30/30-90/90g/m <sup>2</sup> Zinc-iron alloy of zinc (thickness) 30/30-90/90 g/m <sup>2</sup>
	冷軋基板: 厚度為0.3-3.0mm Cold-rolled substrate: thickness of 0.3-3.0 mm
尺寸範圍 Size range	寬度為800-1830mm Width of 800-1830 mm
	熱軋基板: 厚度為1.8-2.8mm Hot-rolled substrate thickness of 1.8-2.8 mm
	寬度為900-1500mm Width of 900-1500 mm
鋼種 Steel Species	沖壓用鋼: 一般用、沖壓用、深沖用、超深沖用、特超深沖用 Stamping Steel: general use, with stamping, deep-use, ultra-deep-use, with special ultra-deep
	結構用鋼 220-550MPa(屈服強度) Structural Steel 220-550MPa (Yield strength)
	冷成形用高強度鋼: 180-420MPa(屈服強度) Cold forming high-strength steel: 180-420 MPa (Yield strength)
ISO、EN、JIS、ASTM等國際和國外熱鍍鋅產品標準 HongShun also can supply the hot dipped galvanized Steel with ISO、EN、JIS and ASTM standard.	



**低碳用鋼**  
Low-carbon steel

牌號 Grades	力學性能 Mechanical Properties						鍍層附著性 Adhesion of coating				
	屈服強度 Yield strength Mpa	抗拉強度 Tensile strength Mpa	$r_{90}$ 不小于 Not less than	$r_{90}$ 不小于 Not less than	斷后伸長率96% Elongation fractured in 96% small L=80mm b=20mm 下列公稱厚度時 Following the thickness(mm)		下列鍍層重量(g/m <sup>2</sup> )時的彎心直徑(a=板厚) Following coating weight (g/m <sup>2</sup> ) at the heart of the bend in diameter (a = thickness)				
DC51D+Z(St01Z St02Z St03Z) DC51D+ZF	-	270-500	-	-	20	22	<0.7	>0.7	<140/140	>140/140-175/175	>175/175
DC51D+Z(St04Z) DC52D+ZF	140-300	270-420	-	-	24	26					
DC53D+Z(St05Z) DC53D+ZF	140-260	270-380	-	-	28	30					
DC54D+Z(St06Z) DC54D+ZF	140-220	270-350	0.18		1.6	34	0a	1a	2a		
					1.4	32				34	
DC56D+Z(St072) <sup>a</sup>	120-180	270-350	0.21	1.9	38	40					
DC56D+ZF <sup>b</sup>			0.20	1.7	36	38					

當產品厚度大於1.5mm時， $r_{90}$ 最小規定值可降低0.2。  
當產品厚度不大於0.7mm時， $r_{90}$ 最小規定值可降低0.2， $r_{90}$ 最小規定值可降低0.01。  
對於差厚度鍍層產品，厚鍍層面作為彎曲試驗的外表面。  
When the product is more than 1.5 mm, R90 value may drop the minimum requirement of 0.2.  
When the product is more than 0.7 mm at the water, R90 minimum requirements can reduce the value of 0.2, R90 minimum requirements can reduce the value to 0.01.  
The difference thickness of the lock products, as a thick coating because the outer surface of the bending test.

**表面結構、代號、特征及用途**  
Surface structure, the code, characteristics and usage

表面結構 Surface structure	代號 Code	特征 Feature	用途 Purpose
正常鋅花 Regular Spangle	Z	鍍鋅後在通常條件下鍍層冷凝而得的鋅花 Galvanized after the conditions are usually derived from the condensation of Spangle	一般用途 General-purpose
小鋅花 Small Spangle	X	通過對鍍層的控制冷凝而形成的表面， 呈現比正常鋅花小的細小鋅花 Through the control of zinc and condensation forming on the surface, showing smaller than normal, zinc, a small Spangle.	用于正常鋅花不能滿足表面外觀要求的用途 Zinc for normal to spend small to meet the requirements of the use of surface appearance
光整鋅花 Skinpass Spangle	G	經專門光整處理得到的表面結構 whole special-treatment by the surface structure	用于高表面質量要求的用途 如：用作彩塗基板 For high-quality requirements on the use of Such as: Base material for PGI
光整小鋅花 Skinpass Small Spangle	GX		
環保無鋅花 Environmental Zero Spangle	N	采用特定生產工藝使鍍層表面無肉眼可見的鋅花 A specific production process so that no visible coating the surface of zinc flowers	鍍層不含鉛，適用各種出口家電產品符合歐洲環保要求 Lead-free coatings for a variety of household electrical appliances exports in line with European environmental requirements
鋅鐵合金 Zinc ferroalloy	R	無鋅花，灰色，一般光澤 Zero Spangle, grey, the general gloss.	適用於進一步塗漆 Applicable to further painting

- **基板**  
鍍鋅基板用與之相對應規格的熱軋卷經酸洗軋制退火平整加工成冷軋卷而獲得。
- **清洗**  
在電鍍前表面進行碱洗、酸洗，使帶鋼表面潔淨。
- **電鍍**  
在洗净的帶鋼表面，單面或差厚電鍍鋅或鋅鎳合金。
- **表面處理**  
根據不同用途，可在電鍍后，分別進行磷化、鈍化、塗油及耐指紋處理。

### 電鍍鋅產品規格及后處理

- **品種**  
電鍍鋅鋼板表面處理大致可分為化學鈍化、磷化、耐指紋處理。  
電鍍鋅基板使用與之相對應規格的熱軋卷經酸洗冷軋及退火平整、除鍍層外，機械性能與基板相同。
- **化學鈍化**  
為了提高鍍層腐蝕進行的化學鈍化處理，目的是為了提高耐腐蝕性和塗裝加工性。
- **磷化**  
磷化板是為了提高塗漆性能進行鍍鋅后表面磷化處理。
- **耐指紋板**  
對於電子行業、家用電器內部零件，在加工中要反復用手觸摸，為防止在鋼板上留下指紋痕迹，在鋼板表面進行塗耐指紋處理。
- **Substrate**  
Galvanized substrate with corresponding specifications of the hot pickling volumes rolling annealing formation processed into cold-rolled and access to volumes.
- **Cleaning**  
In the former electroplating surface caustic washing, pickling, to strip the surface clean.
- **Plating**  
Wash the surface in the strip, single-sided or galvanized or zinc alloy plating.
- **Surface Treatment**  
According to different uses, in electroplating, respectively Phosphating, passivation, Tu Shan resistance and fingerprint processing.

### Electro-galvanized product specifications and post-processing

- **Variety**  
Electro-galvanized steel surface treatment chemicals can be broadly classified into passive, phosphating, fingerprint resistant to treatment.  
The use of electro-galvanized substrate corresponding specifications of the volumes and hot-rolled annealing formation, with the exception of deposits, the same mechanical properties and substrates.
- **Chemical passivation**  
To mention of the corrosion of zinc in the chemical passivation, the aim is to improve corrosion resistance and processing of the painting.
- **Phosphating**  
Phosphating board is to enhance performance of galvanized painted surface phosphate processing.
- **Anti-Fingerprint plates**  
The power industry, household electrical appliances internal parts, in the processing of hand-to-die-touching, in order to prevent the plate in the traces of fingerprints left on the surface coated steel processing Anti-Fingerprint plates



### 主要用途 Main purpose

汽車 Automotive	車體板、收音機、風扇、空氣濾清器、過濾器、油箱。 Body panels, radios, fans, air filter, filter, fuel tank.
家電產品 Home Appliances	冰箱、洗衣機、干燥器、空調、錄像機、激光唱機、彩電 錄音機、微波爐、音響 Refrigerators, washing machines, dryers, air conditioning, VCR, laser disc players, color televisions, tape recorders, microwave ovens, audio.
辦公機噐 Office Equipment	複印機、電子計算機殼、打印機、顯示器、電傳機。 Photocopiers, computer carcasses, printers, monitors, fax machine.
建築 Architecture	門、牆隔板、龍骨。 Door, wall panel, the keel.
生產機噐 Machinery	農機、產業機噐人。 Agricultural machinery, industrial robots.
其他 Others	配電器、油儲罐、馬達蓋、鋼製家具底板。 With electrical appliances, oil storage tank, motor cover, steel plate furniture.

牌號 Grades	主要用途 Main purpose	基板牌號 Grade substrate	對應基板標準 Corresponding standards substrate
SECC SECD SECE		SPCC SPDC SPCE	Q/BQB 402-2003
SECIF		DC05(BSC2)	Q/BQB 403-2003
BLCE+Z, LBCE+ZN		BLC	Q/BQB 40B-2003
BLDE+Z, BUSDE+ZN	沖壓用 Stamping	BLD	
BUSDE+Z, BUSDE+ZN		BUSD	
BUFDE+Z, BUFDE+ZN		BUFD	
BSUFDE+Z, BSUFDE+ZN		BSUFD	

### 鍍鋅層厚度 Galvanized thickness

鍍層形式 Coating forms	鍍層種類 Type of coating	
	純鋅鍍層(單面) Pure zinc coating (single)	鍍鎳合金鍍層(單面) Nickel alloy coating (single)
	3-90	10-40
等厚 Thickness	3/3, 10/10, 15/15, 20/20, 30/30, 40/40 50/50, 60/60, 70/70, 80/80, 90/90,	10/10, 15/15, 20/20, 25/25, 30/30, 35/35, 40/40
差厚 Thickness betweentwo sides	3-90, 兩面差值最大值为40 3-90, two maximum margin of 40	10-40, 兩面差值最大值为20 10-40, two maximum margin of 20
單面 Single	10-110	10-40
	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110	10, 15, 20, 25, 30, 35, 40

注: 50g/m<sup>2</sup>純鋅鍍層重量約等于7.1um, 50g/m<sup>2</sup>鍍鎳合金鍍層(重量約等于6.8um)  
Note: 50 g/m<sup>2</sup> pure zinc coating weight equivalent to about 7.1 um, 50g/m<sup>2</sup> zinc-nickel alloy coating (the weight equivalent to about 6.8um)

鐵板應用對象  
steel plate purpose



800 平板機 設備能力一覽表 Equipment tab mini leveller 800	設備名稱 Device	800平板機(飛剪) Mini Leveller 800	
	製造廠商 Manufactory	威泰鋼鐵股份有限公司 Well Time Steel Co.,Ltd	
	加工速度 processing speed	1) 70M/min;	
	內容僅為最高開機速度 The info. is based on the highest working speed.		
	加工要求 Processing demand	原料厚度 Original material thickness.	0.3MM-2.5MM
		原料寬度 Original material width.	70MM-800MM
		原料重量 Original material weight.	5000KG
		原料內徑 Original material inside diameter.	508MM
		原料外徑 Original material outside diameter.	1500 MM
	原料材質 Original material.		
每天產能 (內容僅作參考所用) Daily capacity (for reference info.)	5T / 8Hr.		
加工能力 Processing ability	生產厚度 Production thickness.	0.3MM-2.5MM	
	剪切長度 cut width.	180MM-3000MM	
	對角公差 Diagonal difference.	±0.5MM(小於1000MM)	
	加工精度 production precision.	±0.3MM(小於1000MM)	
	產品毛邊 Product side.	0.3MM-1.0 MM 毛刺: <0.05MM ; 1.2--2.5MM毛刺: <0.10MM	
其它 other	可單面貼膜, 不能附隔離紙及雙面貼膜; 雙面貼膜的來料加工剪切誤差大。		



800平板機(飛剪)  
Mini Leveller 800



1600平板機(飛剪)  
Mini Leveller 1600

1600 平板機 設備能力一覽表 Equipment tab mini leveller 1600	設備名稱 Device	1600平板機(飛剪) Mini Leveller 1600	
	製造廠商 Manufactory	威泰鋼鐵股份有限公司 Well Time Steel Co.,Ltd	
	加工速度 processing speed	1) 70M/min;	
	內容僅為最高開機速度 The info. is based on the highest working speed.		
	加工要求 Processing demand	原料厚度 Original material thickness.	0.3MM-2.5MM
		原料寬度 Original material width.	380MM-1600MM
		原料重量 Original material weight.	5000KG
		原料內徑 Original material inside diameter.	508MM
		原料外徑 Original material outside diameter.	1850 MM
	原料材質 Original material.		
每天產能 (內容僅作參考所用) Daily capacity (for reference info.)	10T / 8Hr.		
加工能力 Processing ability	生產厚度 Production thickness.	0.3MM-2.5MM	
	剪切長度 cut width.	250MM-4000MM	
	對角公差 Diagonal difference.	±0.5MM(小於1000MM)	
	加工精度 production precision.	±0.3MM(小於1000MM)	
	產品毛邊 Product side.	0.3MM-1.0 MM 毛刺: <0.05MM ; 1.2--2.5MM毛刺: <0.10MM	
其它 other	可單面貼膜及附隔離紙, 不能雙面貼膜; 雙面貼膜的來料加工剪切誤差大。		




常備牌號與規格 Regular grade and specification

工藝 process	產地 original	牌號 grade	形狀 shape	厚度(mm) thickness (mm)	狀態 state	機械性能 mechanical properties	氧化特性 oxidation properties	規格 (mm) specification (mm)
冷 軋 cold rolling	河南 Henan	1060	板 plate	0.3-5.0	H14, H16, H24, H18, H0	可折彎90度, 有少許麻點, 白點, 黑點 Be bent 90degree, with a little spot, white spot, black spot	氧化不穩定, 着色不均, 一般不做氧化 處理 oxidation unstable, color uneven, normally don't do oxidation treatment	1220×C
			卷 coil	0.3-3.0				
	South aluminum	3003	板 plate	0.3-5.0				
熱 軋 hot rolling	西南 亞 鋁 Southwest Asia Aluminum	1050	板/卷 plate/coil	0.5-5.0	H14, H24, H0	可以進行90度 折彎 Be bent 90degree	可進行氧化 處理, 表面 光潔, 氧化 效果好 can do oxidation treatment, clean surface, oxidation effect is good	1220×2440
		1100	板/卷 plate/coil	0.5-5.0				
	中 鋁 Aluminum	3003	板/卷 plate/coil	0.5-5.0	H32, H0	表面光潔 clean surface 不可進行90度 折彎 can't be bent 90 degree	表面光潔 clean surface, oxidation effect is good	
		1070	板/卷 plate/coil	0.5-5.0				
		5052	板/卷 plate/coil	0.5-5.0				
	韓 鋁 臺灣 中 鋼 Han Aluminum Taiwan China Steel	1050	板/卷 plate/coil	0.5-5.0	H14, H24, H16	表面光潔, 平 整, 紋路細膩 clean surface, smooth, good grain	氧化效果極 好 oxidation effect is better	
		1100	板/卷 plate/coil	0.5-5.0	H14, H24, H16			
5052		板/卷 plate/coil	0.5-5.0	H32, H0				
6061		板/卷 plate/coil	0.5-5.0	T6				



## 鋁合金牌號命名及狀態 Aluminum alloy grade naming and status

鋁及鋁合金組別 aluminum and aluminum alloy	表示合金元素或雜質極限含量的控制情況 Say alloy element and impurity content status	基礎狀態代號 (GB/T16475-1996) Basic state code(GB/T16475-1996)
工業純鋁, 鋁含量 > 99.00% 1050 1060 1100 commercial-purity aluminium, aluminum content >=99.00% 1050 1060 1100	純鋁(牌號首位1);表示最低鋁百分含量中小數點后面的兩位,如1050鋁含量為99.5% 其他合金(牌號首位是2-9);兩位數字沒有特殊意義,僅用來識別同一組中的不同合金 Say the lowest aluminum, such as 1050 means aluminum content is 99.5% Other alloy (first is 2-9) 2 number no special meaning, only identify different alloy in the same group	H;加工硬化狀態,適用於通過加工硬化提高強度的產品(這種產品可通過熱處理降低一些強度),常後綴有2位以上的阿拉伯數字。適用於1系\2系\4系等不可熱處理鋁合金。 Strain hardening state, apply to improve strength through work hardening, normally, suffix has more than 2 digits. Apply to grade 1,2,4 aluminum alloy and so on
3:鋁錳系合金 3003 Aluminum and manganese alloy 3003		T;熱處理後產生的穩定狀態,適用於經熱處理產生穩定狀態的產品(這種產品也可進行加工硬化),T字母後總是綴有1位以上的數字。適用於鋁銅系合金、鋁鎂錳系合金、鋁鎂錳銅系合金等熱處理強化鋁合金。 Steady state after heat treatment, after letter T always has 1 or more digit, apply to aluminum and copper alloy, Magnesium aluminum silicon alloy, Copper aluminum zinc magnesium alloy and so on.
4:鋁矽系合金 6061T6 aluminum and silicon alloy 6061T6		O:退火狀態,後可綴有除0以外的1位阿拉伯數字 annealed condition, suffix in addition to 0 outside, also with 1 digit number
5:鋁鎂系合金 5052 aluminum and magnesium alloy 5052		

國際上已經註冊的鋁合金牌號有1000多個,每個牌號又有多種狀態,在硬度、強度、加工性、裝飾性、耐蝕性、焊接性等機械性能和化學性能方面都存在著明顯的差異。選擇鋁合金的牌號與狀態時,以上各方面很難同時滿足,也沒有必要,應該根據產品的性能要求、使用環境、加工過程等因素,設定各種性能的優先次序,方可做到合理選材,在保證性能的前提下合理控制成本。

Aluminum alloy grade have been registered more than 1000, each grade has multiple state, and they are difference on hardness, strength, fabricability, decorative, corrosion resistance, weldability, etc mechanical properties and chemical properties. Selecting aluminum alloy grade and state, products' performance requirement, operating environment, processing should be considered, then you can get best materials and control the cost.

### 硬度 Hardness

很多客戶在購買鋁材時非常關心硬度,硬度首先跟合金化學成分有直接的關係。其次,不同的狀態也影響較大。從所能達到的最高硬度來看,7系、2系、6系、5系、3系、1系,依次降低。

Most of customers are concern the hardness. Hardness has relationship with alloy composition and different state. The most hard aluminum alloy is grade 7, next is grade 2, 6, 5, 3 and 1.

### 強度 Strength

強度是產品設計時必須考慮的重要因素,龍其是鋁合金組件作為結構件時,應根據所承受的壓力,選擇適當的合金。純鋁強度最低,而2系及7系熱處理型合金強度最高。強度和硬度有一定的正向關係。

Strength is an important factor when design. Pure aluminum strength is the lowest, but grade 2 & 7 strength are highest. Strength has positive relationship with hardness.

## 耐蝕性能 Corrosion resistance performance

耐蝕性包括耐化學腐蝕、耐電化學腐蝕、耐應力度腐蝕等性能。一般而言，1系純鋁的耐蝕性最佳，5系表現良好，其次是3系和6系，2系及7系較差。耐蝕性選用原則應根據其使用場合而定。高強度合金在腐蝕環境下使用，必須用各式各樣的防蝕用復合材。

Corrosion resistance include chemical corrosion resistance, electrochemical corrosion resistance, stress corrosion resistance, etc. General speaking, the corrosion resistance of 1 pure aluminum is best, 5 is better, 3 & 6 are well, 2 & 7 are worse. Corrosion resistance is used according to the situation to decide. High strength alloys must use a wide variety of corrosion compound materials in corrosion environment.

## 加工性能 Processing performance

加工性能包括成形性能與切削性能等。因為成形性與狀態有關，在選擇鋁合金牌號後，還需考慮各狀態的強度範圍。通常強度高的材料不易成形。如果要對鋁材進行折彎、拉伸、深衝等成形加工，完全退火狀態的成形性最佳，反之，熱處理狀態材料的成形性最差。鋁合金的切削性能與合金成分有很大的關係，通常強度較高的鋁合金切削性較佳，反之，低強度者切削性較差。對於模具、機械零件等需要切削加工的產品，鋁合金的切削性就是重要的考慮因素。

Processing performance include forming performance and cutting performance, etc. Because formability is associated with state, so, choosing Aluminum alloy grades should consider the strength range, usually high strength of material is not easy to forming. Under in full annealing condition, bending, stretching and deep drawing aluminum is the best, on the other hand, heat treating is worst. The cutting performance is associated with alloy composition, so, high strength aluminum alloy is better than low strength aluminum alloy. For mould, mechanical parts need cutting, aluminum alloy cutting performance is an important factor.

## 焊接性能 Weld performance

多數鋁合金的焊接均無問題，尤其是部分5系鋁合金，是專為焊接考慮而設計的。相對而言，部分2系和7系的鋁合金較難焊接。Aluminum alloy welding is no problem, especially parts of 5 aluminum alloy which is specially designed for welding to design. But parts of 2 & 7 aluminum alloy is hard to weld.

## 裝飾性能 Decorate performance

鋁材應用於裝飾或某些特定的場合時，需要對其表面進行陽極氧化、塗裝等加工，以獲得相應的顏色和表面組織，這時其裝飾性應該做重點考慮。一般而言，耐蝕性較好材料，其陽極處理性能、表面處理性能、塗裝性能都非常出色。

Aluminum material need to do anodic oxidation and coating on surface when it is used on decoration or some specific situation, then it can get corresponding color and surface, decorate performance is a key point at this time. Generally speaking, good corrosion resistance material has good anodic oxidation, surface treatment and coating performance.

## 其它特性 Others

除上述特性以外，還有導電性、耐磨性、耐熱性等，在選材時也需要加以考慮。  
When selecting materials, electrical conductivity, abrasion resistance, heat resistance should be considered, too.

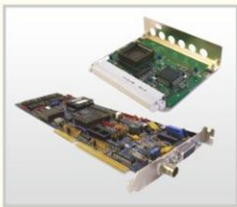
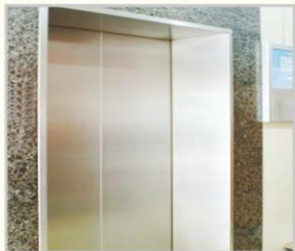


## 主要產品 Main products

類別 class	合金 alloy	主要用途 purpose	使用狀態 state	使用厚度 (MM) used thickness
1系產品 Product line	1050PS版 CTP版 The 1050PS version of CTP version	印刷用鋁板基 Aluminum plate base for printing	H18 H16等	
	1050 1060 1070 1100 氧化料 深衝料 oxidation material deep drawing material	化妝品蓋料、瓶蓋料、圓片料、鋁塑板、花紋板、鏡面板等鋁墊片、機櫃料、燈具料、電容器外殼、散熱片、音響面板 Cosmetic cover material, cap material, round piece material, aluminum plastic plate, checkered plate, mirror board and some aluminum spacer, cabinet material, Lamps and lanterns material, Capacitor device shell, cooling fin, stereo panel	所有狀態 All state	0.2 - 4.5
	1A99、1070、1235、1100 雙零鋁箔及坯料 Double zero foil and blank	電解電容器用鋁箔、食品包裝箔、雙零箔、坯料 Aluminum foil for electrolytic capacitor, food package foil, double zero foil, billet	H14 H18	
3系產品 Product line	3105 3003 3A21 3004 3005 氧化料、深衝料 Oxide material, deep drawing materials	液晶電視面板、背板、手機電池殼、壓紋板、機櫃料、壓力容器、易拉罐料、燈頭料等高性能深衝用料電解電容器用鋁箔 LCD TV front and back panel, Cell phone battery shell, graining board, cabinet material, pressure vessel, can material, lamp material	所有狀態 All state	0.2 - 4.5
	3003 電子箔 3003 Electronic aluminum foil		H18	
5系產品 Product line	5251 5052 5754 5182 5083 5005	手機外殼、平板電腦外殼、機箱外殼、機殼氧化、深衝料、隔音板、集裝箱料、花紋板 mobile phone shell, tablet PC shell, Chassis shell, oxidation material, deep drawing material, acoustic panel, container material, checkered plate	所有狀態 All state	0.3 - 100
6系產品 Product line	6061 6063 6A02	淬火板、預拉伸板、裝飾板、壓花板 Quenching plate, Pre-stretching board, decorative sheet, embossed plate	TX	0.3 - 200

鋁板應用對象

Aluminum plate purpose



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Winning the real marketing as long as standing the situation of customer. Upgrading the additional value of our products by high-class service.



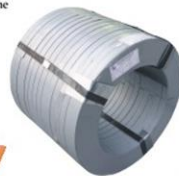
整卷開板

whole volume Coil



包裝

Packing



成品

Finished



HONGSHIIN