

# 馬口鐵產品規格與尺寸 Specifications and Dimension

## 1.規格標準 Standard Specification

### A.馬口鐵皮 Tinplate :

統一實業所產製的馬口鐵皮(Tinplate)係根據 CNS 4155、JIS G3303 標準產製。

Tinplate produced in Ton Yi meets the requirements of CNS 4155, JIS G3303 standard.

### B.TFS 鐵皮 Tin Free Steel :

統一實業所產製的 TFS 鐵皮(Tin Free Steel)係根據 CNS 11241、JIS G3315 標準產製。

Tin Free Steel produced in Ton Yi meets the requirements of CNS 11241, JIS G3315 standard.

## 2.產品尺寸 Product Dimension

記 號 Designation	類別 Item	厚度 Thickness mm	寬度 Width mm	長度 Length mm	圈鐵重量 Coil WT M/T	圈鐵內徑 Inside DIA mm(in)
一次軋延(SR) Single Reduced	裁片 Sheet	0.147~0.60	680~980	508-1,100	-----	-----
	圈鐵 Coil	0.147~0.60	680~980	-----	Max.10.5	406(16)、419(16.5)、 508(20)
二次軋延(DR) Double Reduced	裁片 Sheet	0.13~0.60	700~980	508-1,100	-----	-----
	圈鐵 Coil	0.13~0.60	700~980	-----	Max.10.5	406(16)、419(16.5)、 508(20)

### 3.鋼種 Steel Grade

鋼 種 Steel Grade	特 徵 Characteristics
MR	殘留微量成分少，具有優良之耐蝕性，廣泛用於容器等之一般用途。 Base steel, low in residual elements, that has high corrosion resistance and is widely used in general applications such as containers.
L	銅(Cu)、鎳(Ni)、鉻(Cr)、鉬(Mo)及其它殘留微量成分特別少，適合作為具有極優良耐蝕性之容器材料。 Base steel, extremely low in residual elements such as copper(Cu), nickel(Ni), chromium(Cr) and molybdenum(Mo), that has excellent corrosion resistance and is used for containers.
D	鋁全靜鋼，適合於深沖加工及易發生呂德氏線(Lueder's Lines)之加工用途。 Aluminium killed base steel used for applications involving deep drawing or other types of severe forming that tend to give rise to Lueder's lines.

#### 4.調質度 Temper Grade

記 號 Designation		洛氏表面硬度值(HR30T5m)			用 途 Usage
		厚度 Thickness (mm)			
		t≤0.210	0.210 < t≤0.280	0.280 < t	
一次軋延 (SR) Single Reduced	T-1BA	50±4	49±4	48±4	需要特別加工性質的深衝罐或噴嘴等。 Drawn requirements, nozzles, spouts, closures.
	T-2BA T-2CA	54±4	53±4	52±4	中等程度深衝罐，如小型方罐，橢圓形罐等。 Applications where moderate drawability and some stiffness are required small square and oval.
	T-2.5BA T-2.5CA	56±4	55±4	54±4	介於 T2 與 T3 之間硬度，如小型罐身，罐蓋等。 Suitable for applications requiring the drawability of T2 and the stiffness of T3, such as small can bodies and ends.
	T-3BA T-3CA	58±4	57±4	56±4	一般空罐罐身，罐蓋用或王冠瓶蓋。 Can ends and bodies, large diameter closures, crown caps.
	T-4BA T-4CA	62±4	61±4	60±4	需要較 T3 硬度條件稍高的罐身或王冠瓶蓋。 General line cans, crowns and others requiring higher stiffness than T3.
	T-5CA	66±4	65±4	64±4	大型罐罐身或罐蓋，以及內壓大的容器用。 Large can ends and bodies where excellent bulking resistance is required.

記 號 Designation		洛氏表面硬度 (HR30Tsm)	用 途 Usage
二次軋延(DR) Double Reduced	DR-7.5BA DR-7.5CA	71±4	DRD 2 片罐罐身(DRD 2-piece can bodies)、3 片罐罐身(3-piece can bodies)、罐蓋(can ends)、瓦斯罐身(butane can bodies)、電子零件(electronic components)。
	DR-8BA DR-8CA	72±4	DRD 2 片罐罐身(DRD 2-piece can bodies)、3 片罐罐身(3-piece can bodies)、爪蓋 ( lug caps )、噴霧罐身(aerosol can bodies)、電子零件(electronic components)、啤酒罐身(beer cans bodies )、碳酸飲料罐身(carbonated drink can bodies )、皇冠蓋(crown caps)、鐵全開蓋(easy open ends)。
	DR-8.5BA DR-8.5CA	73±4	3 片罐身(3-piece can bodies)、電子零件(electronic components)、罐蓋(can ends)。
	DR-9BA DR-9CA	75±4	DRD 2 片罐罐身(DRD 2-piece can bodies)、3 片罐罐身(3-piece can bodies)、爪蓋(lug caps)、瓦斯罐身(butane can bodies)、電子零件(electronic components)、大型罐的罐身(large can bodies)。

註：

1. 規格記號 CA 者乃連續退火處理的馬口鐵皮，其優點為硬度高，機械性質均一，耐蝕性高，適合高速製罐。
2. DR 乃將原板經退火後再次軋成極薄而有強度的馬口鐵皮。
3. 連續退火處理 CA 馬口鐵皮具有機械方向性，故在使用來製造罐身時，壓延方向須與空罐圓周平行。

Remarks:

1. The suffix CA means continuous-annealing. CA tinplate features high hardness, uniform mechanical properties, and high corrosion resistance, making it suitable for high-speed can making.
2. DR base metal undergoes a second major cold reduction after annealing, providing thinner gauge along with greater rigidity and strength than SR base metal.
3. Continuous-annealing CA tinplates have mechanical directionality. Therefore, when used to manufacture can bodies, the rolling direction must be parallel to the circumference of the can.

## 5. 表面鍍錫量 Tin Coating Weight Designation

種類 Type	符 號 Designation of Coating Weight		標稱表面錫量 Nominal Coating Weight		最小平均表面錫量 Minimum Ave. Coating Weight	
	CNS,JIS		g/m <sup>2</sup>	lb/B.B.	g/m <sup>2</sup>	lb/B.B.
等厚鍍錫 Equal Coating	1.1/1.1	#10	1.1/1.1	0.05/0.05	0.9/0.9	0.04/0.04
	2.8/2.8	#25	2.8/2.8	0.125/0.125	2.45/2.45	0.11/0.11
	5.6/5.6	#50	5.6/5.6	0.25/0.25	5.05/5.05	0.23/0.23
	8.4/8.4	#75	8.4/8.4	0.375/0.375	7.55/7.55	0.35/0.35
	11.2/11.2	#100	11.2/11.2	0.50/0.50	10.1/10.1	0.45/0.45
差厚鍍錫 Differential Coating	2.8/5.6	#25/50	2.8/5.6	0.125/0.25	2.45/5.05	0.11/0.23
	2.8/8.4	#25/75	2.8/8.4	0.125/0.375	2.45/7.55	0.11/0.35
	2.8/11.2	#25/100	2.8/11.2	0.125/0.50	2.45/10.1	0.11/0.45
	5.6/8.4	#50/75	5.6/8.4	0.25/0.375	5.05/7.55	0.23/0.35
	5.6/11.2	#50/100	5.6/11.2	0.25/0.50	5.05/10.1	0.23/0.45
	8.4/11.2	#75/100	8.4/11.2	0.375/0.50	7.55/10.1	0.35/0.45

註：

1. 兩面鍍錫量不同之表示，依客戶需要，有 S-mark 及 A-mark 可區分兩面之錫量。

A. 在高鍍錫量全面以平行線條表示 (A-mark)

B. 在標示 S 記號之鍍錫量一面距邊緣約 3mm 處以白線條表示 (S-mark)

C. 在低鍍錫量面以斷續平行線表示 (標示記號，買賣雙方協議)

2. 鍍錫量高於 11.2(#100) 或低於 1.1(#10) 條件，請予查詢。

Remarks：


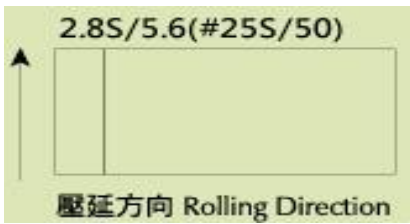
1. The following designations and markings are used for differentially coated tinplate:

A. A-mark : Parallel lines on the heavily coated surface.

B. S-mark : Single continuous line on the lightly coated surface.

2. For the tin coating mass over 11.2(#100) or below 1.1(#10), please inquire.

表面鍍錫標記 Differential Marking

種類 Type	符號 Designation	標記 Differential Marking	
		高鍍錫面平行線條 Parallel lines on the heavily coated surface	低鍍錫面邊緣線條 A continuous line on the lightly coated surface
差厚鍍錫 Differential Coating	2.8/5.6 (#25/50)	1/2"間距	在標示 S 記號之含錫面邊緣約 3mm 作線條標記 A continuous line should be given on the lightly coated surface at 3 mm from the trimmed edge
	2.8/8.4 (#25/75)	1"間距	
	2.8/11.2 (#25/100)	1-1/2"間距	
	5.6/8.4 (#50/75)	1/2",1"間距交替	
	5.6/11.2 (#50/100)	1/2",1-1/2"間距交替	
	8.4/11.2 (#75/100)	1",1-1/2"間距交替	
範例 Examples of Marking			

## 6. 電鍍鍍錫鋼片之表面處理 Finish of Electrolytic Tinplate

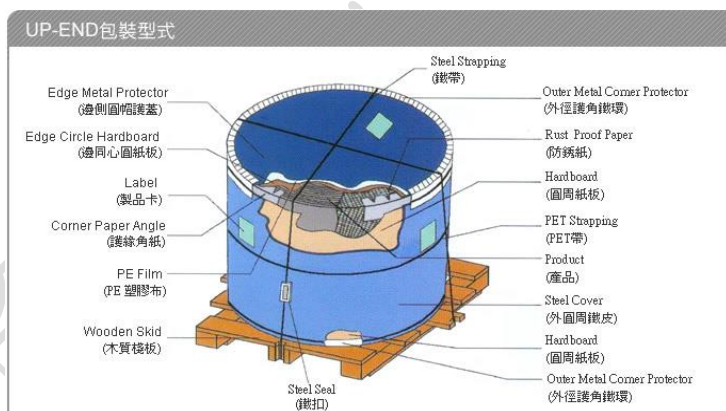
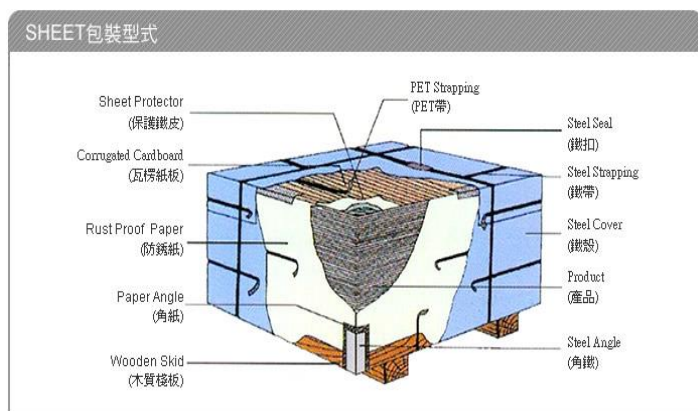
符號 Symbol	表面處理的區分 Type of Finish	特 徵 Characteristic
B	光面處理 Smooth Finish	光面處理的原板於鍍錫後進行熔融處理，產出表面光澤之電鍍鍍錫鋼片。 Electrolytic tinplate with a luster finish provided by a flow-melted tin coating on a smooth finish blackplate.
R1	粗面處理 Stone Finish	粗面處理之原板於鍍錫後進行熔融處理，產出表面光澤之電鍍鍍錫鋼片。 Electrolytic tinplate with a luster finish provided by a flow-melted tin coating on a stone finish blackplate.
R2	極粗面處理 Rough Stone Finish	極粗面處理之原板於鍍錫後進行熔融處理，產出表面光澤之電鍍鍍錫鋼片。 Electrolytic tinplate with a luster finish provided by a flow-melted tin coating on a rough finish blackplate.
MA、MB、MC、 S1、S2	銀面處理 Silver Finish	鈍面處理的原板於鍍錫後進行熔融處理，產出表面光澤之電鍍鍍錫鋼片。 Electrolytic tinplate with a luster finish provided by a flow-melted tin coating on a matt finish blackplate.
M1、M2、M3	鈍面處理 Matt Finish	鈍面處理的原板於鍍錫後不進行熔融處理，產出表面無光澤之電鍍鍍錫鋼片。 Electrolytic tinplate with a matt finish provided by an unflow-melted tin coating on a matt finish blackplate.

# 包裝與標示 Packing and Identification

## 1. 包裝 Packing

為確保馬口鐵品質，馬口鐵皮產品特別注重包裝的密閉性與安全性。通常以 1500 張馬口鐵皮為一包裝箱，但可視客戶要求而另定包裝張數。

Ton Yi packing has been specially developed to guarantee its product during the handling, transportation and warehousing. Tinsplate in cut lengths are usually shipped in lots containing 1500 sheets in one skid. The quantity of sheets per package can be modified when required.



## 2. 標示 Identification

本公司馬口鐵皮產品在包裝上附有標示卡，內容包括鋼種、調質度、表面處理、鍍錫量、尺寸、張數及檢查號碼等。

All packages of cut length are attached with labels carrying STEEL GRADE, TEMPER GRADE, FINISH, TIN COATING MASS, DIMENSION, QUANTITY OF SHEETS, INSPECTION NO, etc.

## 客戶訂貨須知 Order Requirement

統一公司為提供高品質及符合客戶需要之產品，因此希望 貴客戶在訂貨時請惠予提供以下資料：

When an inquiry is made about or when an order is placed for Ton Yi' s Tinplate, please give the following information.

1. 馬口鐵種類及規格 Tinplate specification
  - A. 鋼種 Steel type
  - B. 尺寸 Dimensions
  - C. 鍍錫量 Tin coating weight
  - D. 調質量 Desired temper designation
  - E. 表面處理 Surface finish required
2. 用途 Specific end use
3. 包裝方式 Packing and marking requirements
4. 交貨期 Delivery requirement
5. 其他有關事項 Any other information, if required

