## **02**

### SHANGHAI METAL CORPORATION

COMPANY OVERVIEW

Overview Purpose

Vision

Mission Statement

Core Values

Goals

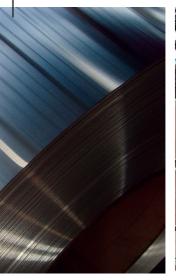
# **80**

### PRODUCT RANGE

Aluminium sheet
Aluminium coil
Aluminium strip
Aluminium foil
Aluminium tube/pipes/
profiles and bars









Factory Production Storage

ALUMINIUM

**FACTORY** 

04

Testing Packaging Labels

QUALITY CONTROL

**25** 



### **Shanghai Metal Corporation**

Shanghai Metal Corporation is an integrated manufacturer, exporter and supplier of value added Metal Products, Building systems, Shipping containers, and Machinery

**OVERVIEW** 

MISSION

STATEMENT

To maintain Long Lasting Relationships with our clients, and always dedicate our efforts to create Quality Products and Reliable Service, while building Global Value through our belief in Environmental Stewardship and Sustainability

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To lead the market in both material manufacturing and process innovation

**PURPOSE** 

CORE VALUES

Fair and Transparent Management – Provide clients with only the highest quality products – Continuous Innovation – Environmental Stewardship and Sustainability

To be world class through

VISION

GOALS

Maintain customer relationships through our belief in a customer driven culture – Lead the Market through Constant Innovation of our Operation Methods – To provide clients with only the Highest Quality Products through using the Latest developments in Technology and Processes

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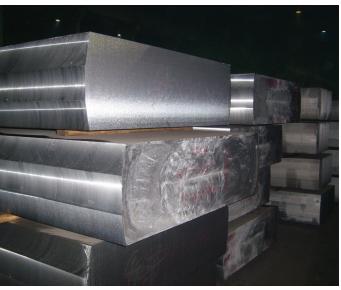






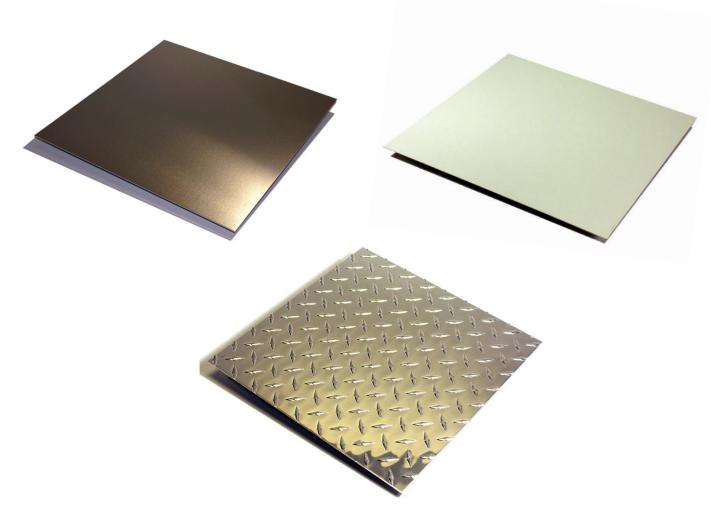
Shanghai Metal Corporation has one DC processing line, which equipped with two heating systems, three cold machines, two foil rolling machines, four tension level machines, four slitting machines and eight nitrogen annealers. From 500mm thickness, the DC processing line can roll the slab ingot to be 6-8mm thickness, after being processed by cold rolling machine and foil rolling machine, the finished thickness can reach 0.2mm qualified thickness. We can supply you DC material of 1XXX, 2 XXX, 3XXX, 4XXX, 5XXX, 6XXX, 7XXX and 8XXX series aluminium sheet and coil, our annul capacity can reach 120000 MT.





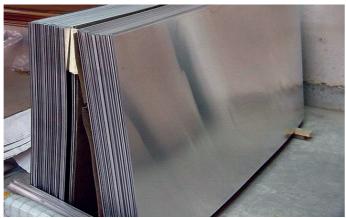
ALUMINUM SHEET / PLATE

## ALUMINUM COIL



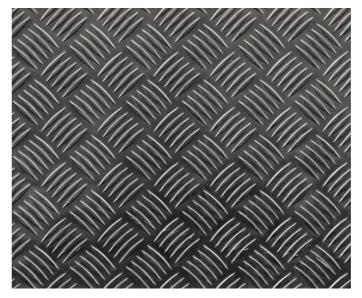












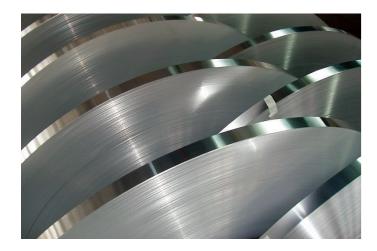




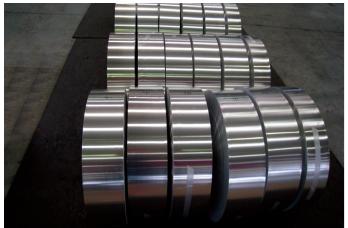




### ALUMINUM STRIPS











PRODUCT	ALLOY	TEMPER	THICKNESS	WIDTH	LENGTH	
	AA1050	All Tempers	0.18-350mm	150-2200mm	Up to 8000mm/coil	
	AA1060	All Tempers	0.18-350mm	150-2200mm	Up to 8000mm/coil	
	AA1100	All Tempers	0.18-350mm	150-2200mm	Up to 8000mm/coil	
	AA2014	All Tempers	1.0-350mm	150-2200mm	Up to 8000mm/coil	
	AA2024	All Tempers	1.0-350mm	150-2200mm	Up to 8000mm/coil	
ĺ	AA3003	All Tempers	0.18-350mm	150-2200mm	Up to 8000mm/coil	
ĺ	AA3004	All Tempers	0.3-350mm	150-2200mm	Up to 8000mm/coil	
	AA3005	All Tempers	0.3-350mm	150-2200mm	Up to 8000mm/coil	
	AA3104	All Tempers	0.3-350mm	150-2200mm	Up to 8000mm/coil	
Sheet & Plate & Coil	AA3105	All Tempers	0.3-350mm	150-2200mm	Up to 8000mm/coil	
& C011	AA4045	All Tempers	0.2-350mm	150-2200mm	Up to 8000mm/coil	
	AA5005	All Tempers	0.2-350mm	150-2200mm	Up to 8000mm/coil	
	AA5052	All Tempers	0.2-350mm	150-2200mm	Up to 8000mm/coil	
[	AA5182	All Tempers	1.0-350mm	150-2200mm	Up to 8000mm/coil	
ĺ	AA5083	All Tempers	0.3-350mm	150-2200mm	Up to 8000mm/coil	
	AA5251	All Tempers	0.3-350mm	150-2200mm	Up to 8000mm/coil	
	AA5754	All Tempers	1.0-350mm	150-2200mm	Up to 8000mm/coil	
	AA6061	All Tempers	1.0-350mm	150-2200mm	Up to 8000mm/coil	
	AA7075	All Tempers	1.0-350mm	150-2200mm	Up to 8000mm/coil	
	AA1100	O H44 H46 H48	0.2-4.0mm	Up to 2200mm	300-6000mm	
	AA3003	U П44 П40 П46	0.2-4.0mm	Up to 2200mm	300-6000mm	
	AA3004	All Tempers	0.2-4.0mm	Up to 2200mm	300-6000mm	
Dellar coating	AA3105	All Tempers	0.2-4.0mm	Up to 2200mm	300-6000mm	
Roller coating sheet	AA5005	All Tempers	0.2-4.0mm	Up to 2200mm	300-6000mm	
Silect	AA5052 All Tempers		0.2-4.0mm	Up to 2200mm	300-6000mm	
	AA5083	All Tempers	0.2-4.0mm	Up to 2200mm	300-6000mm	
	AA5754	All Tempers	0.2-4.0mm	Up to 2200mm	300-6000mm	
	AA5754	All Tempers	0.2-4.0mm	Up to 2200mm	300-6000mm	
	AA1100	All Tempers	0.2-3.0mm	Up to 2200mm	Up to 6000m/coil	
	AA1060	All Tempers	0.2-3.0mm	Up to 2200mm	Up to 6000m/coil	
	AA3003	All Tempers	0.2-3.0mm	Up to 2200mm	Up to 6000m/coil	
[	AA3004	All Tempers	0.2-3.0mm	Up to 2200mm	Up to 6000m/coil	
. [	AA3005	All Tempers	0.2-3.0mm	Up to 2200mm	Up to 6000m/coil	
Roller coating coil	AA3104	All Tempers	0.2-3.0mm	Up to 2200mm	Up to 6000m/coil	
COII	AA3105	All Tempers	0.2-3.0mm	Up to 2200mm	Up to 6000m/coil	
ĺ	AA5005	All Tempers	0.2-3.0mm	Up to 2200mm	Up to 6000m/coil	
Ī	AA5052	All Tempers	0.2-3.0mm	Up to 2200mm	Up to 6000m/coil	
İ	AA5083	All Tempers	0.2-3.0mm	Up to 2200mm	Up to 6000m/coil	
	AA5754	All Tempers	0.2-3.0mm	Up to 2200mm	Up to 6000m/coil	

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#### SPECIFICATIONS

- Grade: 1050,1060,1070,1100,1200,1235,3003,3102,8011, 8079 etc.
  Temper: O,H14,H18,H22,H24,H26
  Thickness: 0.005mm-0.2mm, per customer's request
  Width:12mm-1950mm

#### Applications of Aluminum foil

1) Aluminum Foil for Food--including food packaging and food container:

PRODUCT NAME	APPLICATION	ALLOY	TEMPER	THICKNESS	WIDTH
Container Foil		3003/8011	O/H22/ H24	0.045mm-0.12mm	150mm-1650mm
Household Aluminum Foil	ALUMINIUM FOIL	1235/8011	0	0.009mm-0.025mm	150mm-1650mm
Battery Aluminum Foil	Add To	1235/1060/ 1100/3003/ 8011	H19/H9	0.01mm-0.03mm	150mm-1650mm
Aluminum Foil for Hot Seal		1060/1235/8011	0	0.03mm-0.07mm	150mm-1650mm
Aluminum Foil for PP Caps		8011	H14	0.18mm-0.24mm	per cutting request

### 2) Aluminum Foil for Packaging-wide application:

PRODUCT NAME	APPLICATION	ALLOY	TEMPER	THICKNESS	WIDTH	
Beer Bottle Mark Foil	AMERICA AMERICAN	8011	0	0.010mm	150mm-1950mm	
Pharmaceutical Foil		8011	H18	0.018mm-0.030mm	m 150mm-1950mm	
Converting Foil for Packaging		8079/1235/8011	0	0.006mm-0.009mm	150mm-1950mm	
Cigarette Foil	Ma di	8079/1235/8011	0	0.006mm-0.007mm	150mm-1950mm	

#### 3) Aluminum Foil for Industry--used in industrial processing:

PRODUCT NAME	APPLICATION	ALLOY	TEMPER	THICKNESS	WIDTH
Aluminum Foil for A/C		1100/1200/ 3003/8011	O/H22/ H24/H26	0.08mm-0.30mm	12mm-1650mm
Hydrophilic Foil		1100/3003/ 3102/8011	O/H22/ H24/H26	0.08mm-0.30mm	12mm-1650mm
PS/CTP base board		1050/1060/ 1070/3003	H18	0.15mm-0.70mm	700mm-1300mm
Aluminum Foil of narrow width		1000/3000/ 8000	O/H14/ H18/ H22/ H24/H26	0.005mm-0.2mm	3mm-600mm
Cable Material	O	1050/1060/ 1100/1235/8011	O/H22/ H24	0.05mm-0.20mm	12mm-1300mm
Adhesive tape foil		1235/8011/ 8079	0	0.015mm-0.05mm	30mm-1650mm

### Foil Rolling Line

Our foil plant has 18 foil mills equipped with flatness control system from Siements (AFC) and guage control system from Honeywel (AGC). About 20 separators and 10 slitters for various applications, 4 grinders from Herkules Germany, more than 60 annealing furnaces. The thickness range of our foil is from 0.005mm to 0.2 mm with width up to 1950 mm. Our products include semi-rigid container foil, household foil, beverage foil label, blister foil, foil tape, hot seal foil, tube foil, cigarette foil, flexible packing, capacitor foil and other twenty varieties.



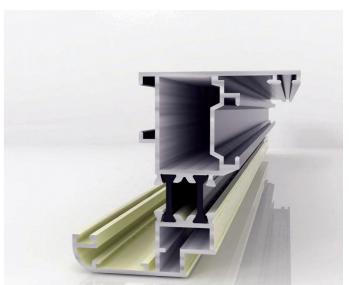


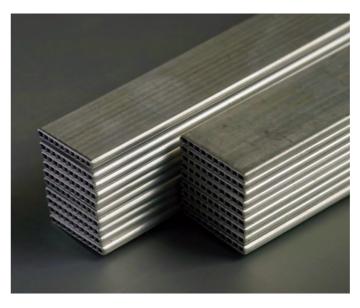




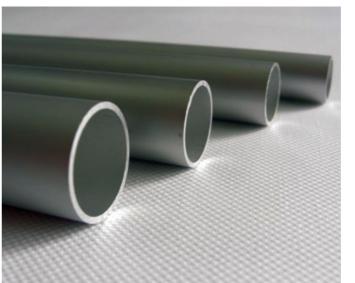


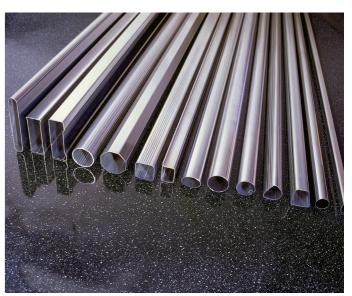














#### Typical Aluminum Alloy Materials' Chemical Composition and Mechanical Properties

Consider	Chemical Composition (%)							_	Tensile	Elonga-			
Grade	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Al	Temper	Мра.	tion %
1050	0.25	0.40	0.05	0.05	0.05	-	-	0.05	0.03	99.50	O/H18/ H112	60-95	22
1100	0.9	95	0.05- 0.20	0.05	-	-	-	0.10	-	99.00	O/H18/ H112	75-110	22
2014	0.50- 1.20	0.70	3.9-5.0	0.40- 1.2	0.20- 0.8	0.10	-	0.25	0.15	Remain	O/H112/ T4/T6	375	10
2024	0.50	0.50	3.8-4.9	0.30- 0.9	1.2-1.8	0.10	-	0.25	0.15	Remain	O/H112/ T4/T6	440	10
3003	0.60	0.70	0.05- 0.20	1.0-1.5	-	-	-	0.10	-	Remain	O/H14	95-130	22
5052	0.25	0.40	0.10	0.10	2.2-2.8	0.15- 0.35	-	0.10	-	Remain	O/H14/F	170-240	-
5083	0.40	0.40	0.10	0.40- 1.0	4.0-4.9	0.05- 0.25	-	0.25	0.15	Remain	O/H14/ H32	270-355	12
6061	0.40- 0.80	0.70	0.15- 0.40	0.15	0.8-1.2	0.04- 0.35	-	0.25	0.15	Remain	O/H112/ T4/T5/T6	260	9
6063	0.20- 0.6	0.35	0.10	0.10	0.45- 0.9	0.10	-	0.10	0.10	Remain	O/H112/ T4/T5/T6	205	9
6082	0.7-1.3	0.50	0.10	0.40- 1.0	0.6-1.2	0.25	-	0.20	0.10	Remain	O/H112/ T4/T6	285	8
7075	0.40	0.50	1.2-2.0	0.30	2.1-2.9	0.18- 0.28	-	5.1- 6.1	0.20	Remain	F/T4/T6	560	6

Aluminum Tubes/Pipes & Profiles : Surface treatments of Aluminum Tubes/Pipes & Profiles

- Anodizing
   Polishing
- 4) Electrophoresis
- 5) Sand-blast
- 3) Powder coated
- 6) Coating film

#### Typical Aluminum Alloy Materials' Chemical Composition and Mechanical Properties



Irrigation Pipe



Pneumatic Cylinders



**Furniture** 

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Radiator



TV Antenna





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Heat Exchange



Extrusion Equipments of Aluminum Industry



Picture 1

Picture 2

Picture 3



Picture1:The 100MN extrusion press by China Taiyuan Heavy Industry

Picture2:The 55MN indirecte tube extrusion press(double acting)by SMS-MEER

Picture3:The 36MN directe extrusion press by China Taiyuan Heavy Industry



### PVDF color precoated aluminum coils

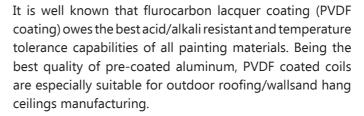




Picture 1	Picture 2
Picture 3	Picture 4
Picture 5	Picture 6

Picture 1: Casting of extrusion bar Picture 2: Extrusion flow platform Picture 4: Anodizing pool Picture 3: Straighten machinery Picture 5: Machinery of cold drawn Picture 6: CNC mould making center







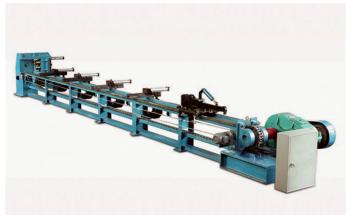


Using high-grade polyester lacquer coating material, the finished coating coils are with delicate color uniform texture, color and diverse. It is the most popular and most common used materials in decorative usage. The PE coated aluminum are widely used in ACP (aluminum composite panel) production and indoor celling usage.

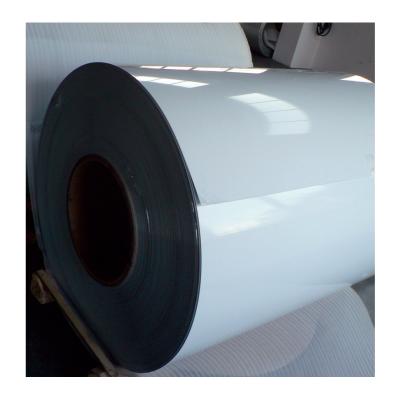
### Color precoated aluminum coils for roofing











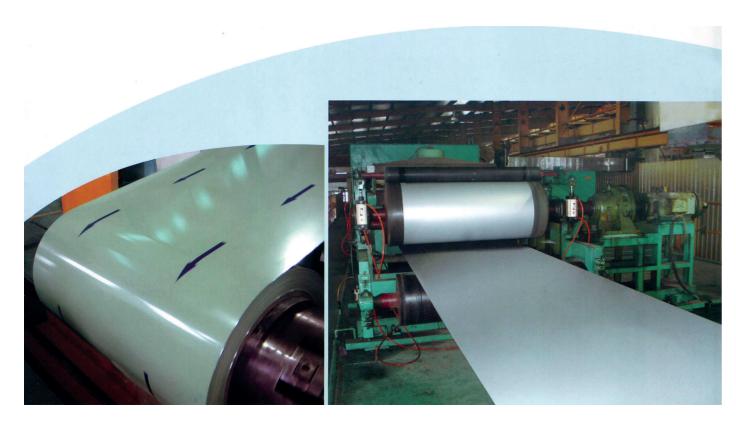


A3004 color precoated aluminum ( for roofing) : The SMC A3004 coated Aluminum of roofing are especially outstanding at its high strength / corrosion resistance and weather resistance because of its using of the A3004 alloy and precoated with the best PVDF coating brands such as PPG/BECKER and VALSPAR, which enables our finished products a warranty of outdoor using for more than 20years. After the processing. Our A3004 coated coils are suitable 20years . After the processing. Our A3004 coated coils are suitable for large - span and big over all roofing installment.

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### Aluminum coils for building decoration

Aluminum coils for building decoration: SMC prepainted aluminum coils include various series for different celling / home decorative and wall decorative. Now we have the PVDF series / PE series/ nano coating series/pearly luster series / self clean series / anti scratch series and wood grain series. With all the different series, we can meet most of the market requirements.

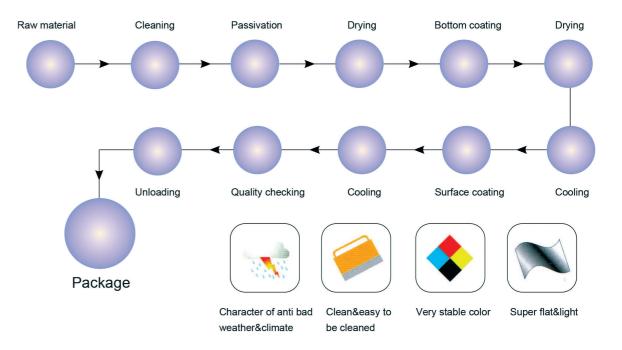


Wood grain / marble vain color coated aluminum

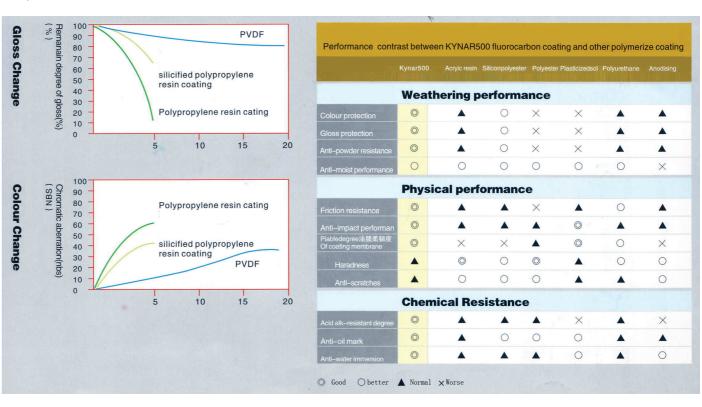




#### **Manufacturing Process**



#### Properties - chart



Analysing Systems



- Spectrometers from British Arun company
- Tensile Strength Tester
- Tester For Hardness

- Microscope Test of Grain Size
- BYK Color Difference Tester
- Sufix Drying Film Tester from Germany

In order to improve quality of all products, we import 5 ABB Measurement and control systems from Sweden and an advanced spectrometers particularly from the British Arun company, to keep all aluminum sheets & coil have clean surface with excellent quality and high smoothness. The tolerance of their length, thickness, width and diagonal is extremely small; all of them have good Mechanical Performance and Mechanical bending performance, so that we are able to meet different production requirement of clients.







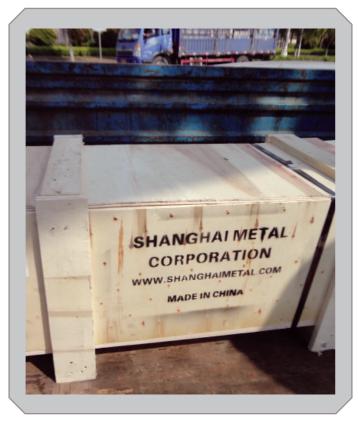






### Labels of Export Products





Label of Aluminum foil



Label of Aluminum Alloy Tube



Shanghai Metal Corporation provides professional SMC and neutral labels for our worldwide customers. On the label, Products name, Material grade, Temper, Dimension, Color, Quantity of pcs, Net weight, Gross weight, Invoice number, Inspector No. and other related information will be showed. The anti-corrosion and waterproof label makes the package more professional and trackable, which is in accordance with our digital logistics system.



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