

COLOR ALUMINUM SERIES

彩铝系列 ▶

彩涂铝卷：彩钢板的完美替代品

采用1060、1100、3003、3004、5052等系列材质铝基板，经过特殊的前处理、温度控制、特殊技术处理，粘接性更佳。

广泛应用于铝塑板，铝单板，铝蜂窝板，铝天花板，屋顶面，边角料，易拉罐，电子产品。其性能十分稳定，不易被腐蚀，表层经特殊处理后可以达到30年质量保证，单位体积的重量是金属材料中最轻的，彩涂铝，是目前最流行的一种新型材。

Color Coated Aluminum : Perfect Alternative for Color Coated Steel .

Color Coated Aluminum uses 1060,1100,3003,3004,3005,3105 and 5052, etc. as basic aluminum which has better adhesion after special treatment, temperature control and special technical treatment.

Now it is widely used in aluminum composite panel, aluminum single panel, honeycomb panel, ceiling, roofing, scrap, cans and electronic products. Its performance is much stable and anti-corrosion. After special Aluminum color plate already becomes one of the most popular materials.

好心脏，才有好身体。好芯材，才有更好的产品。

Health body with strong heart, excellent products with better raw materials.



铝塑板



铝单板



室内装潢用材



易拉罐



性能对比：PERFORMANCE COMPARISON

	彩钢的特点 Color Steel Feature	彩铝的特点 Color Coated Aluminum Feature	铝镁锰的特点 AL-MG-MN Feature
耐久性 Durability	在潮湿空气及雨、雪水的侵蚀下容易腐蚀生锈，特别是接缝的部位。 Easily corroded with snow and rainy weather ,especially the joint section.	可塑性差，但较彩钢使用年限长。既有铝的耐腐蚀性，又有刚的强度 强度高，使用年限长	与大气形成氧化铝薄膜，防止被进一步腐蚀。 Aluminum oxide film against further corroded.
重量 Weight	重量比较重（密度为7850KG/M ³ ） Heavy weight(density:7850kg/m ³)	重量轻（密度为2710KG/M ³ ） Light weight(density:2710kg/m ³)	
强度和刚度 Strength and Stiffness	强度和刚度比较好 Good strength and stiffness	铝合金中有镁，锰的含量，因此具有一定的强度和刚度。 Aluminum content in MN and MG with better strength and stiffness.	
外观性 Appearance	涂漆类（PVDF、SMP、PE、PVC皮膜等） Painting(PVDF, SMP,PE,PVC coating)	可分为非涂漆（锤纹、压花、预钝化氧化铝表面处理等）和涂漆类（PVDF、SMP、PE、PVC皮膜等） Without Painting(embossed and surface treatment) and painting(PVDF, SMP,PE,PVC coating)	
防雷性能 Lighting Protection Capability	一般采用0.5MM镀锌铝和镀锌钢板，不能直接作为防雷闪接器，需另外架设防雷闪接器（如避雷针）。 Normally used 0.5mm GL and GL plate. It is not able to directly used for lightning flash connector.	厚度一般为0.7MM和0.9MM，可直接作为防雷闪接器（国家规范<<建筑防雷设计规范>>GB50057），避免在屋面穿孔。 Thickness between 0.7mm and 0.9mm, as lightning flash connector (National Standard << Building Lightning Protection Design Specification >> GB50057), to avoid roof perforation.	
安全消防 Safety and Firefighting	钢的熔点高（1515摄氏度） Steel melting pointing(1515degrees)	熔点低（660摄氏度），发生火灾时，屋面易被烧穿，使火势向外蔓延，而不向内横向蔓延，有助于消防员从顶部伸入消防水管救火。 Low melting point (660 degrees).The material burn easily, so the fire spread outward instead of inward. This helps firefighters keep the fire under control.	

彩铝卷介绍 Color Coated Aluminum Production Line

一、光铝卷经过清洗、铬化、辊涂、烘烤等加工后，铝卷表面附有各种颜色的油漆涂层，也就是彩涂铝卷。

二、彩铝因其质地轻、颜色鲜艳、容易加工成型、不生锈等优点，被广泛应用于保温板、铝幕墙、铝镁锰屋面系统、铝天花板等诸多领域。

三、涂层铝卷，因加工过程与使用目的不同，可以简单的分为：表面涂层的油漆，分为聚酯（PE）涂层铝卷与氟碳（PVDF）涂层铝卷；环氧辊涂铝卷。当然，也存在一面涂氟碳另一面涂聚酯的情形；甚至有双面都涂氟碳的情形。

1. Color Coated Aluminum : After cleaning, chromated, roll coating, baking and other process on the surface of aluminum coil, then various color of paint coating was coated on the plate, that' s the Color Coated Aluminum.
2. Color Coated Aluminum is widely used in many fields such as thermal insulation board, aluminum wall, Al-Mg-Mn roofing system, aluminum ceiling and so on because of its good features: light texture, bright color, easily forming and no rust.
3. Because of the different processing steps and using purposes, color coated aluminum can be simply divided into: surface coated paint, polyester (PE) coated aluminium coil and fluorocarbon (PVDF) coated aluminium coil; epoxy roll coated aluminium coil. Of course, there are also cases that one side is coated with PVDF and the other side is coated with PE. Even more, there are cases that both sides are coated with PVDF.



性能参数 Product performance

产品种类 Product category	聚酯彩铝板 Polyester/PE color -coated aluminum	氟碳彩铝板 Fluorocarbon/PVDF color-coated aluminum
铝卷厚度mm Aluminum coil thickness (mm)	0.15-1.8	0.15-1.8
涂层厚um Coating thickness (um)	面 (top) ≥25 背 (back) ≥10	面 (top) ≥25 背 (back) ≥10
MEK	≥100	≥200
T弯 T bend	面 (top) ≤2T 背 (back) ≤3T	面 (top) ≤2T 背 (back) ≤3T
冲击 Impact	50kg.m	50kg.m
附着力 Adhesion	0级 (Grade)	0级 (Grade)
铅笔硬度 Pencil hardness	≥2H	≥2H
沸水实验 Boiling water proof	2小时无变化 No change within 2 hours	2小时无变化 No change within 2 hours
典型合金 Typical alloy	1100、1050、1060、3003、 3004、3005、3104、3105	
典型状态 Typical Temper	H14、H16、H18、H24、H26	

以上参数仅供参考，准确数据以实际为准

The above parameters are for reference only and the exact data is subject to actual conditions.



劳尔色卡

Ral Color Card



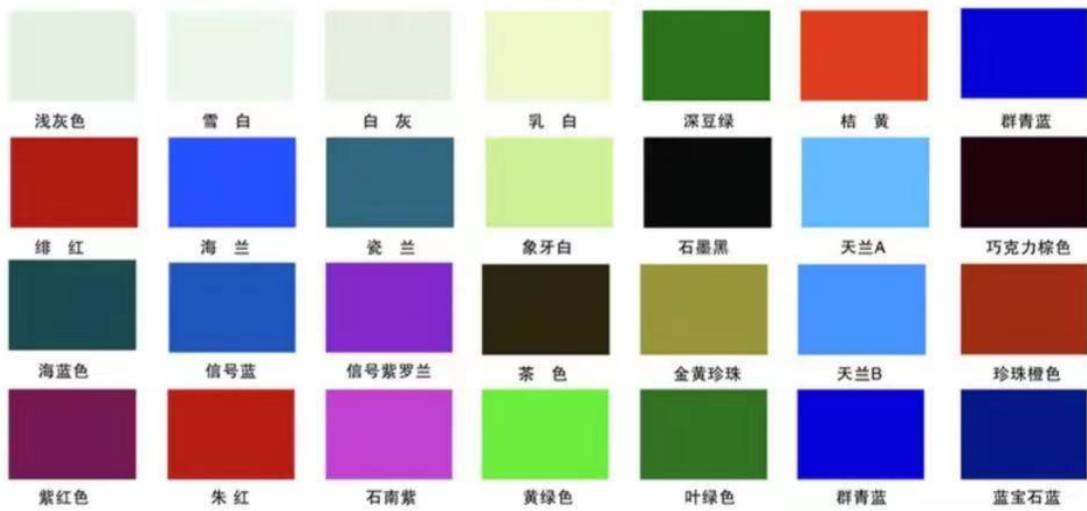
潘通色卡

Pan Tong color card



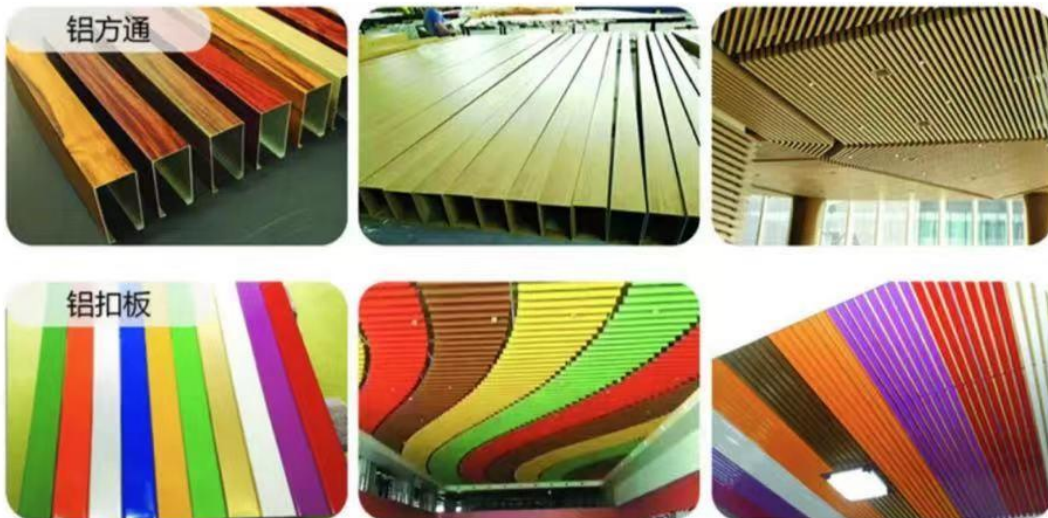
彩色涂层标准色卡

Standard color card color coating



装饰板

Decorative board



铝塑板

Aluminum composite panel

铝塑板作为一种新型装饰材料,以其经济性、可选色彩的多样性、便捷的施工方法、优良的加工性能、绝佳的防火性及高贵的品质,迅速受到人们的青睐。

铝塑复合板本身所具有的独特性能,决定了其广泛用途:它可以用于大楼外墙、帷幕墙板、旧楼改造翻新、室内墙壁及天花板装修、广告招牌、展示台架、净化防尘工程。属于一种新型建筑装饰材料。

As a new type of decorative material, aluminum composite panel(ACP) is quickly favored by people for its economy, diversity of optional colors, convenient construction methods, excellent processing performance, excellent fire resistance and noble quality.

The unique performance of the aluminum composite panel(ACP) determines its wide application: it can be used for building exterior wall, curtain wall board, renovation of old building, interior wall and ceiling decoration, advertisement signboard, display stand, purification and dust-proof engineering. It belongs to a new type of building decoration material.



装饰板

Decorative board



铝塑板

Aluminum composite panel

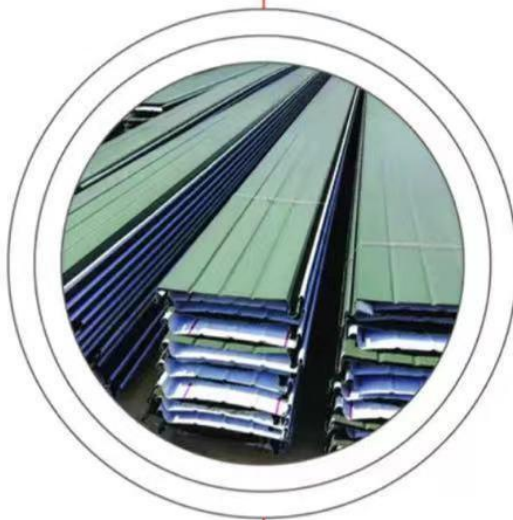
铝塑板作为一种新型装饰材料,以其经济性、可选色彩的多样性、便捷的施工方法、优良的加工性能、绝佳的防火性及高贵的品质,迅速受到人们的青睐。

铝塑复合板本身所具有的独特性能,决定了其广泛用途:它可以用于大楼外墙、帷幕墙板、旧楼改造翻新、室内墙壁及天花板装修、广告招牌、展示台架、净化防尘工程。属于一种新型建筑装饰材料。

As a new type of decorative material, aluminum composite panel(ACP) is quickly favored by people for its economy, diversity of optional colors, convenient construction methods, excellent processing performance, excellent fire resistance and noble quality.

The unique performance of the aluminum composite panel(ACP) determines its wide application: it can be used for building exterior wall, curtain wall board, renovation of old building, interior wall and ceiling decoration, advertisement signboard, display stand, purification and dust-proof engineering. It belongs to a new type of building decoration material.





AL-MG-MN PREPAINTED ALUMINUM SHEET

铝镁锰彩铝板 ▶

产品介绍 Product introduction

铝镁锰板是一种极具性价比的屋面、外墙材料。铝合金在建筑业中得到广泛的应用，为现代建筑向舒适、轻型、耐久、经济、环保等方向发展发挥了重要的作用。AA3004铝镁锰合金由于结构强度适中、耐候、耐渍、易于折弯焊接加工等优点，被普遍认可作为建筑设计使用寿命50年以上的屋面、外墙材料。

Al-Mg-Mn sheet is a kind of cost-effective material for roofing and exterior wall. Aluminum alloy has been widely used in the construction industry, which has played an important role in the development of modern architecture towards comfort, lightweight, durability, economy and environmental protection. AA3004 Al-Mg-Mn alloy is widely recognized as a roof and exterior wall material with a service life of more than 50 years due to its moderate structural strength, weatherability, stain resistance and easy bending and welding.

铝镁锰合金板的涂层

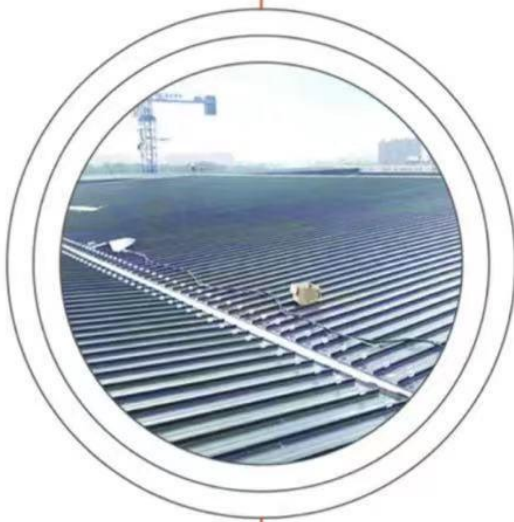
常用的涂层有：聚酯（PE）烤漆涂层、氟碳（PVDF）烤漆涂层。

PVDF涂层：耐磨性好、电性能优异；具有优异的抗紫外线性；耐候老化性好，耐燃、耐油、耐化学品腐蚀性能好。

Coating of Al-Mg-Mn Al-Mg-Mn Prepainted Aluminum Sheet

Commonly used coatings are: polyester(PE) painting, fluorocarbon (PVDF) painting.

PVDF Painting: good wear resistance, excellent electrical properties; excellent ultraviolet resistance; good weather aging resistance, fire resistance, oil resistance, chemical corrosion resistance.



PVDF 涂装系统分两种：

- 1) **预辊涂层铝板**：预辊涂所用涂漆中PVDF的基料含量高达70%，经水平自动化二涂二烤或三涂三烤辊涂工艺制成，每一涂层都需经过烘烤固化后再涂层；三涂三烤涂层的密实性与抗腐蚀、抗老化性都远优于二涂二烤涂层。
- 2) **普通喷涂铝板**：通常采用二涂一烤或三涂二烤涂装，工序均由人工操作完成，涂层的附着性、表面色差均劣于预辊涂板。

PVDF painting system is divided into two types:

- 1) pre roll coated aluminum sheet: the content of PVDF in the coating used for pre roll coating is as high as 70%, which is made by horizontal automatic two coating two bake or three coated three roll baking process. Each coating needs to be baked and solidified before coating again. The coating density and corrosion resistance and aging resistance of three coating three baking coating are far better than two coating and two baking coating.
- 2) common spraying aluminum plate: generally, two coating and one baking or three coating and two baking are used for coating. The process is completed by manual operation, and the adhesion and surface color difference of coating are inferior to that of pre roll coating plate

主要用途 Application

由于铝镁锰彩铝板可塑性强，可做成铝镁锰扇形板、铝镁锰弧形板等，极大地满足了金属屋面对美观和耐久性的设计需求，因此铝镁锰金属屋面系统被广泛应用在钢结构厂房、体育馆金属屋面、机场金属屋面、剧院金属屋面、高端厂房金属屋面、城市地标性建筑、民用建筑等大型建筑物的金属屋面上。

AL-Mg-Mn Prepainted Aluminum Sheet are widely used for steel structure plants, gymnasium metal roofing, airport metal roofing, theatre metal roofing, high-class plants metal roofing, landmarks, civil construction, etc.



常规板型 Regular board type

板型——直板 Straight board

直板板型肋高一般为65mm，常用的板宽有300mm、330mm、400mm、420mm、430mm。

其中板宽300mm的在屋面荷载较大时使用；430mm的为常用、经济型的。

The rib height of straight slab is generally 65mm, and the commonly used slab width is 300mm, 330mm, 400mm, 420mm, 430mm. The slab with width of 300mm is used when the roof load is large; the slab with width of 430mm is commonly used and economical.



板型——弯弧板 Curved plate

弯弧板包括正弧板和反弧板两类

There are two kinds of arc bending plates: positive arc plate and reverse arc plate



弯弧板自然弯曲参数

板型/mm	厚度/mm	支柱间距/m	正弯半径/m	反弯半径/m
305~500	0.9	1.6	40	45
305~500	1.0	1.8	45	50
305~500	1.5	2.0	50	60

弯弧板机器正弯、反弯参数

类别	板型	板厚		
		0.9	1.0	1.2
正弯	305~500	6.0	3.0	1.5
反弯	305~500	16.0	12.0	8.0

板型——扇形板 Sector plate

扇形板包括直扇形板、正扇形板、反扇形板。

Sector plate includes straight sector plate, positive sector plate and reverse sector plate.

各种版型的适用范围

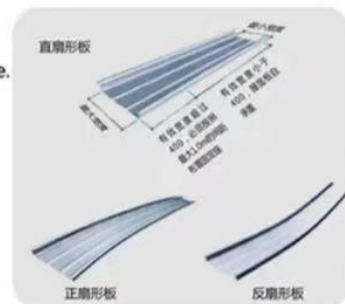
Scope of application

直板：适用于单坡、双坡及半径大于自然成弧半径的单曲屋面；

正、反弧板：适用于半径小于自然成弧半径的单曲屋面；

扇板及扇弧板：适用于双曲屋面；

特例：直板用于双曲面上，屋面曲率小，并且屋面上允许作多条屋脊。



应用铝镁锰合金屋面板的建筑案例

Building case of aluminum magnesium manganese roof



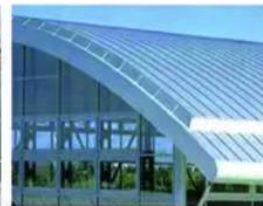
单坡及双坡屋面



扇板屋面



双曲屋面



单曲屋面

AL MG MN ROOFING SYSTEM

铝镁锰屋面系统

铝镁锰屋面系统介绍

铝镁锰屋面系统作为一种金属屋面，它的核心构成是基于直立锁边与直立锁缝咬合设计的特殊板形的金属屋面板块，这种设计主要针对大跨度自支承式密合安装体系。在金属屋面上看不见任何穿孔，因为该铝镁锰屋面系统支撑的方式是隐藏在面板之下的。

铝镁锰屋面系统已通过其自身多年使用充分证明，是各种屋面、商用建筑及公共建筑理想的选择。所有金属屋面优先考虑的是防风雨功能，本屋面系统毫无例外的完全解决了这个问题。

Introduction of aluminum magnesium manganese roof system

The aluminum magnesium manganese roof system is a kind of metal roof. Its core structure is a special plate-shaped metal roof plate based on the design of vertical lock edge and vertical lock joint. This design is mainly aimed at the large-span self-supporting sealed installation system. No perforations can be seen on the metal roof because the way the aluminium magnesium manganese roof system is supported is hidden under the panel.

The aluminum magnesium manganese roof system has been proved to be an ideal choice for all kinds of roofs, commercial buildings and public buildings through its own years of use. All metal roofs give priority to the weatherproof function, and the roof system completely solves this problem without exception.

铝镁锰屋面系统构造

防尘层：为无纺布，主要用于防尘隔灰，铺设在屋面底板上表面。

吸音棉：通常采用的是玻璃丝棉，其容重和厚度需根据计算确定。

隔汽层：可单独铺设，也可选择玻璃丝棉（带有防潮贴面）；单独铺设的隔汽层常用聚酯膜、高密度纺粘聚乙烯膜等。

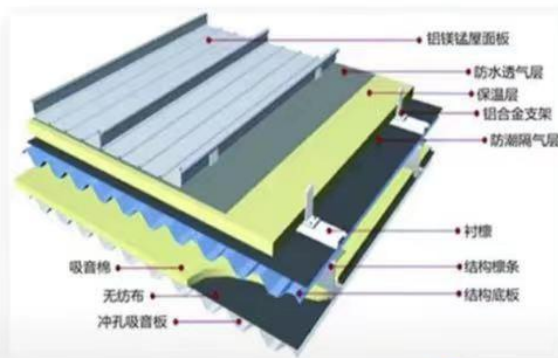
屋面次檩条：为Z275 镀锌檩条。

保温、隔音层：通常采用岩棉，其厚度需根据计算确定。

防水透气膜：为高密度聚乙烯无纺布，阻隔风雨对建筑结构的侵袭，在加强建筑气密性、水密性的同时，还可提供独一无二的透气性，使围护结构内部水迅速排出，有效避免霉菌和冷凝水的形成。

铝合金固定座（T形码）：固定在屋面次檩条上，用来固定铝镁锰合金屋面板。

铝镁锰合金屋面板：厚度通常为0.9 mm、1.0mm、1.2 mm。



铝镁锰金属屋面系统

产品型号：65-430、65-420、65-400
65-330、65-300、65-250

品牌：力拓

材质：铝镁锰

产地：山东滨州

特点：此屋面是卷板在成型机上挤压，然后进行垂直锁边制成，理论上，板的长度无限制，由于无需横向搭接板材，板安装完毕后不会有任何漏水现象，同时便于造型。