



## Color coated aluminum coil

LICHEN---specializes in producing [color coated aluminum coil](#) for Exterior and Interior applications. Color [coated aluminum](#) coil is a salt with an excellent acid-resistant material. Coating to maintain a long light. It is an environmentally friendly, fire-resistant properties of the green and beautiful decorative. [color coated aluminum coil](#) are widely used in ACP, curtain panel, honey comb panel, shutter, roofing and most of the decoration areas. We have introduced in most advanced computerized metal processing equipment, Pre-treatment by the German pharmaceutical Henkel and Kenema Mittel. PPG paint coatings using the United States, Sweden BECKER paint, the United States Lili valspar paint. PVDF, perfluorocarbons can be divided into surface coatings, self-cleaning nano-Kang Wu fluorocarbon coating, coated polyester, acrylic coating. With the superior quality and advanced management, our products had been export to Euro, Middle East, North America, East Asia and many other areas and Countries.

With a large sales network, we have branches and offices in large cities. Adhering to the quality principle of "Quality Foremost, Customers Above All", we sincerely offer you perfect products and more comprehensive services.

Aluminum Coating

LICHEN color coated aluminum coils adopt the famous brand draw materials. It includes several classifications:

### PE (polyester) Coating

PE (polyester) coating: high molecular polymer as monomer and addition of alkyd, is an UV-resistant coating. It can be classified matt and glossy according to coating gloss. The compact molecule structure, makes paint surface luster and smooth, which assure good printing on the panel surface. With an warranty of 8-10 years for weather resistance, it is specially applied for internal decoration and sign board.

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## PE Color Coated Aluminum Coil:

LICHEN [PE color coated aluminum coil](#) with good PE Paints and high performance of aluminum coil is produced by advanced roller coating. All performance parameters are up to or much higher than related national standards.

### The performance of PE color coated coil

Item	Test Item	>Standard	National standard	Test Result
1	Color Difference	>ECCA T3	$\Delta E \leq 2.0$	$\Delta E \leq 1.5$
2	Gloss Difference	>ECCA T2	$\leq 10$	$\leq 5$
3	Coating Thickness	>ECCA T1	Min 14 $\mu$ m	$\geq 16\mu$ m
4	Pencil Hardness	>ASTM D3363	$\geq$ HB	HB
5	T-bend	>ASTM D4145	$\leq 3T$	$\leq 2T$
6	Adhesion	>ASTM D3359	Grade 0	Grade 0
7	Impact	>ASTM D2794	$\geq 20$ kg. cm	$\geq 20$ kg. cm
8	Boiling water Resistance	>GB/T17748	2h no change	2h no change
9	Solvent Resistance	>ASTM D2248	200 times paint remaining	200 times paint remaining
10	Salt Resistance	>ASTM B117	720 hrs $\leq$ grade 1	720hrs $\leq$ grade 1
11	Dirt Resistance	>GB/T9780	$\leq 5\%$	$< 5\%$
12	Color retaining	GB/T16259	600hrs $\Delta E \leq 2.0$	$\Delta E \leq 2.0$
13	Gloss weaken Level		600hrs $\leq$ grade 2	600hrs $\leq$ grade 2
14	Chalking		600hrs No Change	No Change

## PVDF (fluorine-carbon) Coating

PVDF (fluorine-carbon) coating :made of fluorine carbon resin, pigment, ester solvent, after high temperature roasting and baking, the paint is solidified to dry film with super weather resistance. PVDF coating also can be classified as traditional PVDF

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and nanometer PVDF coating.

A. Traditional PVDF Coating, with KYNAR500 PVDF, two or three times for coating and baking, has good properties of anti-acid, anti-alkali and is durable in atrocious weather and environment, keeping 15 years no unwonted fading. In view of these facts, we recommend this panel applied for external wall cladding.

B. Nanometer PVDF Coating, which different with traditional PVDF is the clear coating. It contains nanometer element, which can protect panel from pollution, Because nanometer has self-cleaning effect, It easy to get rid of dust and pollution by raining or water.

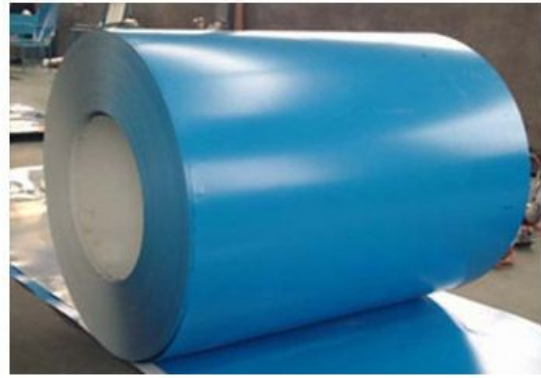
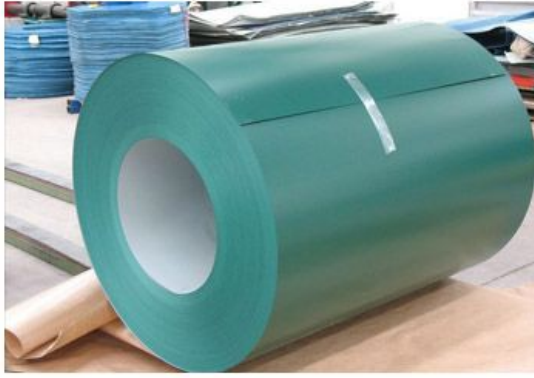
### Parameters of PVDF Coating PVDF (KYNAR500 PVDF>70%)

Substrates:	Aluminium (AA1100, 3003, 3004, 3105, 5006, 5052, 8011, etc), etc.
Thickness:	0.08-1.5mm
Width:	<1800mm
Coils core diameter:	150mm ,405mm, 505mm, 508mm, 510mm
Coating thickness:	PVDF >=25micron POLYESTER>=18micron
Color standard:	E < 2 or it is not obvious by eyeballing
Pencil hardness:	> 2HB
Coating adhesive:	not lower than first grade Impact: no any crack (50kg/cm, ASTM D-2794:1993)
Bend strength:	>100 times
Boiling point:	no any distortion and color change (in the 99 more or less 1 degree water, then cooling 2 hours)
Corrosive:	surface deep in the 5% muriatic acid and 5% NaCL, interior deep in the 2% muriatic acid and 2% NaCL, after 48 hours, no change

Color coated aluminum coil Introduction

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## Specification

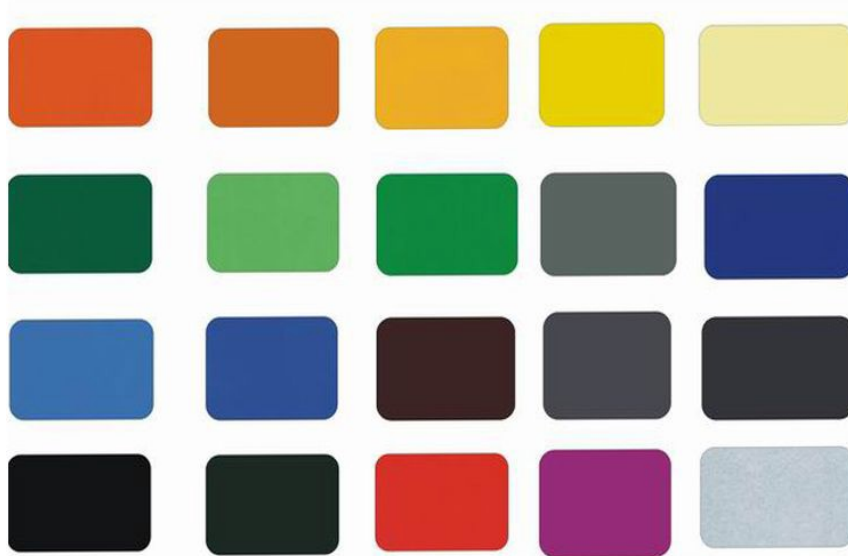
Substrates:	Aluminium (AA1100, 3003, 3004, 3105, 5006, 5052, 8011, etc), etc.
Thickness:	0.08-4.0mm
Width:	<1800mm
Coils core diameter:	150mm ,405mm, 505mm, 508mm, 510mm
Coating thickness:	PVDF $\geq$ 25micron POLYESTER $\geq$ 18micron
Color standard:	E < 2 or it is not obvious by eyeballing
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#### Color Chart



#### Color Match

1. For custom' color requests, we can deal as following:

A. Supply a physical sample of custom color. A color sample on metal is preferred. If other, it is also acceptable. But the color matching rate may be not good as color on metal.

B. New color sample is usually offered by our paint supplier in 5-7 days, special color should be in 7-10 days.

C. Upon receipt of color sample, please approve in writing as soon as possible. Once you approved, we will arrange purchasing and production.

Note: Color difference maybe occurred in different production batch, so it is suggested all panels are placed in one order for same project. And keep same direction as arrow on protective film when installing to avoid any color difference by vision.

2.For general colors, please refer to our color chart

#### Packing

Plastic film wrapped inside and carton packing. Wooden pallet with steel strip tied. Buyers can slao choose to pay for wooden case packing, which enables safer and more room saving in loading.

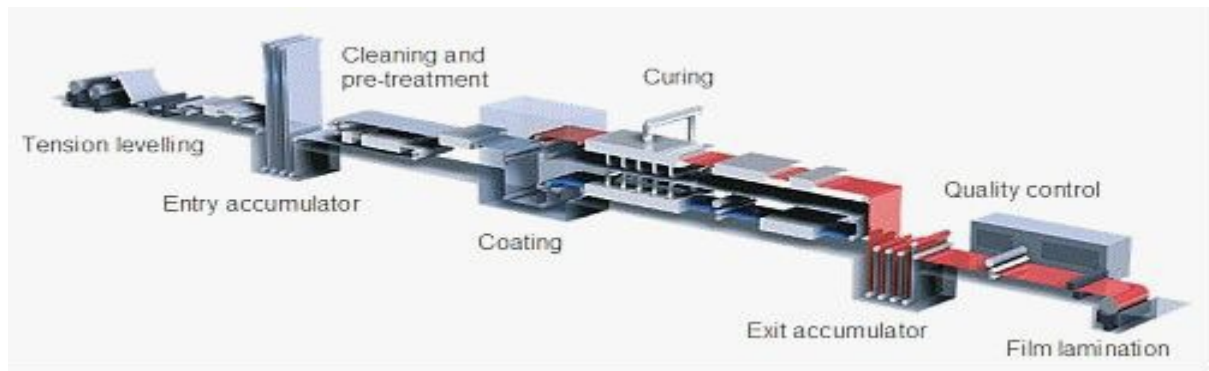
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## Production Process of Color coated aluminum coil

Every step significantly contributes to the excellent finished pre-painted aluminum coil, the pursuit of perfection spurs us on to our utmost effort to deal with every step as the following:



The coil coating process is the most efficient means of coating aluminum with an organic protective coating. It is a continuous, high-volume process that produces a consistent product in comparison to batch post-coating methods. The aluminum substrate gets degreased, chemically pre-treated and coated. Typical paint system requirements are formability, scratch-resistance, appearance, weatherability, printability, etc

### Entry Section

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The coil is fed to the line and leveled using a tension leveler which is used to ensure an absolutely flat product, the coil entry accumulator. There are two pay off reels, which ensures that a standby coil is always available. When the coil being processed has finished, the coil needs to stop to allow the end of this coil to be either stitched or welded to the leading edge of the new coil, the accumulator then empties to allow a continuous flow of material through the processing section to keep the subsequent process zones of the line running.

## Cleaning and Pre-treatment

Pre-cleaning of the coil through cascade spraying in alternate directions within different zones, cleaning is thus much more efficient than conventional technologies and water can be re-used, thereby cutting consumption levels. Pre-treatment is essential to increase the corrosion resistance and ensure paint adhesion. The conversion layer is chemically built up on the surface of the aluminium coil during pre-treatment process, and LICHEN is using the most efficient no-rinse technology to improve the quality, and eliminated wastes

## Coil Coating

The coil coating process consists of two stages, one is called primer application and the other is finish coating application. In the first stage, the coil passes through a roller coater machine that applies a primer paint coat to both sides/one side of the coil. After curing and dried, the coil passes through a second roller coater machine which applies the finish coating to both sides/one side. There are essentially two different types of coating- decorative and functional and typical requiring formability, scratch resistance, appearance, weather resistance, printability etc. to achieve different results, the paint system are used: e.g. acrylic primer, polyester, PUR, or PVDF.

## Curing

The strip again passes through an oven set at an appropriate temperature to ensure that all the volatiles are removed and that the paint is fully cured. Depending on the paint system, the curing temperature lies between 200~3000°C, and it is the key technology to promise the coating quality. What is more, in order to protect the environment and safe cost, the solvent vapour is burned- off and used to heat the ovens.

## Further Processing

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The coated aluminum coil maybe wind up or imprint a pattern into the paint surface by an embosser roll.

## Quality Control



## Lamination of Protective Film

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A protective film is customized to apply to the LICHEN pre-painted aluminum coil which protect the film and carry additional information such as coating direction and brand details. The films are environmentally friendly and easy to recycle.

#### Application

As per types of surface coating of paint, color coated aluminum coils can be divided into polyester (PE) coated aluminum coil, fluorocarbon (PVDF) coating aluminum coil and Epoxy coated aluminum coil

According to the thickness of the coating, it can be divided into single-coated aluminum coil (4-20 microns); double-coated aluminum coil (25 to 28 micron) and triply-coated aluminum coil (35-38 micron).

LiChen Color coated aluminum coil is widely used in the roofing and cladding system, ceiling system, curtain wall plate, shutter, gutter, composite panel, can, home appliances board and embossed aluminum coil.

Building: Coated aluminium coils are undoubtedly applied to most industries, specially construction industry. Weather resistant, highly decorative with insulating property, Colour coated coil is an ideal materials for Venetian blinds, rolling shutters, ceiling panels, roofing, façade, ACP Panel. Eaves etc.

#### Typical Application products

##### 1. Roller Shutter:

Durability and weather resistant Aluminium Composite Panel (ACP), Ceiling, Roofing etc: High decorative and weatherability Eaves: Corrosion resistant

##### 2 Industry:

Colour Coated aluminium coils is an ideal material for white appliances such as refrigerator due to it's property of electrical and thermal conductivity, and corrosion resistance.

##### 3 Transport:

Light weight, strong and weatherability have been made coated aluminum very popular in truck body, caravan, buses, insulated and refrigerated vehicle.

##### 4 Signs:

Application in Signs requires high colour consistency and flat surface. UAL can fulfill the requirements with excellent performance.

#### PE color coated aluminum coil of Application

PE Coil is widely and mainly used for building decoration, such as ACP, aluminum, ceilings, aluminum sheets, honeycomb panels and aluminum roofing, lighting

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decoration, household electrical appliances, food package (such as pop can cover & ring-pull), furniture ect.



PVDF color coated aluminum coil of Application

PVDF color coated aluminum coil is the best & high class materials for top coils of ACP, aluminum sheets and honeycomb panels. Its laminated products are widely used for the decoration of the airport, exhibition halls, commercial buildings, star hotels and the curtains wall of high-class building.

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## Company profile

lichen Aluminum is located in famous aluminum capital of Zhengzhou, Henan province. We are professional coated



aluminum coil manufacturer, mainly produces series-1, series-3, series-5, series-6 and series-8 aluminum coil and aluminum alloy plate/strip/foil products, such as color coated aluminum coil, pe coil, PVDF Coating coil, hot-rolled thick plate, ROPP cap materials, aluminum circle/disc for cookware, aluminum drilling entry for PCB, aluminum tape for aluminum plastic tube, aluminum baseplate for PS plate, aluminum bright finish tread plate, aluminum circles, aluminum checkered plate, PP cap materials and others. These products are generally

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applied to air-conditioner, washing machine, refrigerator, cosmetic package, printing, building decoration, aluminum ROPP cap, bus floor, and telecommunication cable etc. fields.

[We would like to highlight our color coated aluminum coil,pe coil ,color coated aluminum strip,color coated embossed aluminum coil,aluminium circle, aluminum ROPP cap materials, aluminum hot rolled plate and aluminum tread plate with good quality and competitive price.](#) Lichen Aluminum sells its products widely to United State, Brazil, Chile, Mexico, Germany, UK, Italy, Bulgaria, Czech, Saudi Arabia, UAE, Iran, Bangladesh, India, Sri Lanka, Vietnam, Japan, Korea, Singapore, Indonesia, Philippines, Austria, Fiji, South Africa etc more than 40 countries. Lichen Aluminum has total annual production capacity of 200,000 metric ton aluminum sheet, strip and foil. It is equipped with 1+4 hot tandem rolling line, 4 cold mill production lines, and 5 foil mill production lines, and a complete complex of fishing equipment.

Serve our Clients with Heart and Soul has always been the motto of our company. LiChen Aluminum is eager to take cooperation with all the customers from home and abroad to create a wonderful future together!!!

## Our team



## Contact us

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Please send us a message, and we will reply with the price and any other additional information within one business day, thanks! E-mail:[info@lichenalu.com](mailto:info@lichenalu.com)

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