



HDPE Coated Aluminum Coil Sheet



High-performance polyester (HDPE) coated aluminum coil, has good heat resistance and cold resistance, good chemical stability, high rigidity and toughness and good mechanical strength.

HDPE coated aluminum coil is applicable to chemical industry, metallurgy, electric power, coastal areas, plateau and other areas with high requirements for UV resistance and corrosion resistance, as well as building interior and exterior panels with special requirements for anti pollution.

HDPE coating has the advantage of good aging resistance and corrosion resistance. And its acid resistance is very good, which is 5-6 times of that of ordinary PE coated aluminum. When polyester resin is changed into hydrophilic polyester with strong antifouling property, the coating surface has strong self-cleaning and pollution resistance properties. The weathering life is more than 15 years.

BCM Aluminum's HDPE coated aluminum sheet substrate is made of high-quality aluminum coil and high-performance polyester coating with superior performance. It is equipped with high-tech, high-performance roller coating process, combined with international advanced production technology. Effectively control the accuracy of the sheet, flatness, uniform color, smooth and bright. The product has excellent processing performance, heat resistance and cold resistance, good chemical stability, high rigidity and toughness and good mechanical strength.

Specification of HDPE Coated Aluminum Sheet:

Alloy	AA1050, 1060, 1070, 1100, 3003, 3004, 3105, 5005, 5052, 6061, 8011, etc
Coil thickness	0.018-1.5mm
Coil width	30-2000mm, Standard 1240mm, MAX 2020mm
Coil weight	0.5 to 5.0 tons per coil
Surface treatment	PE/PVDF coated, Embossed, Mill finish, Mirror Finish, Powder coated, Wood grain, Stone grain, Checkered
color	white series, metallic series, dark series, gold series(accept color customs), RAL/PANTONE or as color chart or customized
Packing	Standard exporting packing/ or at buyer's requirement
Trade Terms	FOB/CIF etc
Diameter	405mm, 505mm, 508mm
Coating thickness	14-28 microns (PE: ≥ 14 micron, PVDF: ≥ 25 micron)
Coils core diameter	150mm, 405mm, 505mm



Temper	O - H112
Gloss	20-100%(matte: ≥ 20 , glossy: ≥ 60)

Standards and Specifications

ASTM	B209
ISO	ISO 26204 (alloy designations), ISO 6892 (mechanical testing), ISO 9001, ISO 14001.
UNS	A91050 (United States Numbering System)

Performance of HDPE Color Coated Aluminum Coil

Test Item	National standard	Test Result
Color Difference	$\Delta E \leq 2.0$	$\Delta E \leq 1.0$
Gloss Difference	≤ 10	≤ 5
Coating Thickness	Two layers Min 23 μ m	$\geq 25\mu$ m
	Three layers Min 30 μ m	$\geq 34\mu$ m
Pencil Hardness	$\geq$ HB	HB
T-bend	$\leq 2T$	$\leq 2T$
Adhesion	Grade 0	Grade 0
Impact	≥ 50 kg.cm	≥ 50 kg.cm
Boiling water Resistance	2h No change	4h No change
Solvent Resistance	200 times paints remaining	500 times no break
Acidity Resistance	5%HCL 24hrs No change	No change
Alkali Resistance	5%NaOH 24hrs No change color $\Delta E \leq 2.0$	No change
Nitric acid Resistance	$\Delta E \leq 5.0$	$\Delta E \leq 5.0$
Oil Resistance	20#oil 24hrs No change	No change
Salt Spray Resistance	4000hrs $\leq$ Grade 1	No change
Abrasion resistance	$\geq 5L/\mu$ m	$\geq 5L/\mu$ m
Dirt Resistance	$\leq 5\%$	$< 5\%$
Color retaining	4000 hrs $\Delta E \leq 4.0$	4000 hrs $\Delta E \leq 3.0$
Gloss weaken Level	4000 hrs $\leq$ Grade 2	4000 hrs $\leq$ Grade 2
Chalking	No change	No change

Warranty:

Regular PE: 3-5 years;

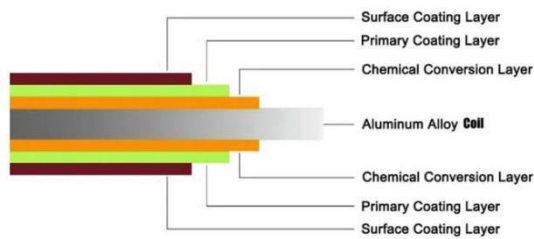
High Performance PE(HDPE): 6-9 years;

Color Options of HDPE Coated Aluminium Sheet:

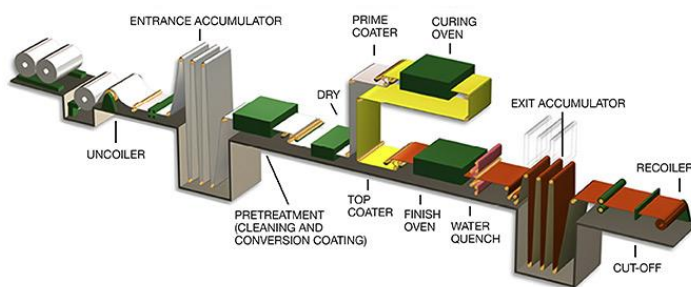
HDPE coated aluminum coils can be processed into a variety of different colors and textures such as metallic color, wood grain color, marble color, etc. by special surface treatment technology to meet different architectural styles and decoration requirements.



Structure of HDPE Coated Aluminum Coil



Process of Coil Coating



Advantages of HDPE Color Coated Aluminum Coil:

Excellent Weather Resistance:

High-performance polyester color coated aluminum coils typically utilize a high-durability polyester (HDP) coating, a high-molecular-weight polymer composed of a special polyacid and polyol. This coating is almost completely transparent to UV rays, enhancing gloss retention and chalking resistance. It is also resistant to photolysis and offers a guaranteed service life of over 15 years under normal conditions, significantly improving the 7-10-year lifespan of standard polyester (PE) coatings.

Excellent Mechanical Properties:

The coating offers increased hardness, stronger adhesion, and improved impact resistance. For example, color-coated aluminum coils with a HDP coating maintain excellent flexibility while better resisting impact and scratches. They also meet the requirements of complex processing techniques such as bending, cutting, and punching, and the coating resists peeling and cracking after processing.

Excellent Decorative Properties:

The HDP coating supports the mixing of any color from the RAL and Pantone color palettes, and its computerized color matching system ensures a color difference of ≤ 1.0 , meeting the precise color requirements of various architectural and decorative projects. Some high-performance PE color coated aluminum coils also utilize advanced textured roller coating technology, such as 3D texturing, which creates a 0.5mm-deep, concave and convex texture on the aluminum coil surface. The texture feels like natural wood or stone, while the visual effect is clear and lifelike,



creating a more outstanding decorative effect.

Environmental friendliness:

From the aluminum coil substrate to the surface coating, all processes are SGS-certified. VOC levels are far below national standards, meeting environmental requirements. No harmful substances are released during use, harmless to humans or the environment.

Applications of HDPE Coated Aluminum Sheet:

HDPE coated aluminum coil sheet is mainly used in homes, shopping malls, office buildings, hotels, schools, factories, banks, conference halls, stadiums, exhibitions, subways, airports etc indoor places.

Construction Industry

Exterior wall decoration: HDPE color coated aluminum coil can be used as building decorative panels, applied to exterior wall decoration, balcony decoration, etc.

Roof board: HDPE color coated aluminum coil can be used as roof board, which is lightweight and corrosion-resistant, suitable for various climate conditions, and also has fireproof and moisture-proof properties.

Automotive Industry

Body Panel: HDPE color coated aluminum coil is used for automotive exterior panels, such as doors, hoods, etc., which is lightweight and corrosion-resistant, can improve fuel efficiency and extend vehicle service life.

Roof and side decoration: used for roof and side decoration, providing a variety of color options to enhance the beauty of the car.

Logo and Advertising

Billboard: HDPE color coated aluminum coil is used to make outdoor billboards, with bright and long-lasting colors and not easy to fade. It can also be used to make road signs and other outdoor signs.

Packaging of HDPE Coated Aluminium Sheet:

- 1) LCL by wooden pallet package, fumigation wooden pallet is available
- 2) FCL by wooden pallet package loaded in the container
- 3) FCL in bulk loaded in the container
- 4) Customized package according to your demands

Shipping:

7-15 days after receipt of payment(depend on order quantity)