



5052 Prepainted Aluminum Coil



5052 prepainted aluminum coil has a high level of resistance to corrosion, making it ideal for outdoor applications and environments where moisture is present. 5052 aluminum alloy is known for its excellent corrosion resistance, good weldability, and high strength, making it suitable for various applications.

Specification of 5052 Prepainted Aluminum Coil:

Alloy	1050, 1060, 1070, 1100, 3003, 5052, 5052, 5005, 5006, 5052, 5754, 5182
Thickness	0.2-1.5mm
Width	600-1500mm
Coating Surface	PVDF/ PE/HDPE/FEVE/EOXY/ PU
Coating Thickness	Single Coating (4-20 Um)
	Double Coating (25-28 Um)
	Triple Coating (35-38 Um)
Temper	O,H12,H22,H14,H24,H16,H26,H18,H26,etc.
Color	All Ral Color or As Request
Type	Coil, sheet, strips, plate
Coil Weight	3-8 MT
Coil ID	508mm and 405mm
Certifications	ISO9001
Applications	Roofing System and Ceiling Decoration for Airport, Railway Stations, Exhibition Halls, Factory and Stadium
Supply Ability	200000 tons per year
MOQ	2 tons per size

Coating Options:

- Polyester Coating: A common choice for outdoor applications due to its durability and resistance to fading.
- PVDF (Polyvinylidene Fluoride) Coating: Offers superior weathering, UV resistance, and a long lifespan, often used for architectural applications.

Warranty:

Regular PE: 3-5 years;

High Performance PE: 6-9 years;

PVDF: 15 years;

FEVE: Two coats: between 10-15 years;

FEVE: Three coats: 15-20 years.



Technical Data:

Coating	POLYESTER	PVDF
Item	Technical requirements	Technical requirements
Thickness of coating film	$\geq 18 \mu\text{m}$	$\geq 25 \mu\text{m}$
Gloss deviation	gloss<70, tolerance $\leq 10\%$	gloss<70, tolerance $\leq 10\%$
	gloss ≥ 70 , tolerance $\leq 5\%$	gloss ≥ 70 , tolerance $\leq 5\%$
Hardness of pencil	$\geq 3\text{H}$	$\geq 3\text{H}$
Adhesion	no lower than class 1	no lower than class 1
Flexibility	$\leq 2\text{T}$	$\leq 2\text{T}$
Boiling water resistance	no change (2h)	no change (2h)
Color difference	$\Delta E \leq 2.0$	$\Delta E \leq 2.0$
MEK	≥ 100 times	≥ 150 times

Properties of 5052 Painted Aluminum Coil:

Chemical Composition

Element	Magnesium (Mg)	Silicon (Si)	Iron (Fe)	Cooper(Cu)	Manganese(Mn)	Chromium (Cr)	Zinc(Zn)	Aluminum (Al)
Content (%)	2.2-2.8	≤ 0.25	≤ 0.40	≤ 0.10	≤ 0.10	0.15-0.35	≤ 0.10	Balance (remainder)

Key notes:

Magnesium is the primary alloying element, providing corrosion resistance and moderate strength.

Chromium improves stress corrosion cracking resistance and stabilizes grain structure.

Impurities (Si, Fe, Cu, etc.) are strictly limited to maintain mechanical properties and formability.

Mechanical Properties

Property	(H12)	(H14)	(H16)	(H18)
Tensile Strength	28-36 Mpa	30-38Mpa	34-42Mpa	38-46Mpa
Yield Strength Min.(ksi)	21	26	35	35
Elongation at Break	≥ 8	≥ 6	≥ 4	≥ 3
Bend Diameter (T = thickness)	2T	3T	4T	6T

Physical Properties

Property	Value
Density	2.68 g/cm ³ (0.097 lb/in ³)
Melting Range	1070–1130°F (577–610°C)
Thermal Conductivity	118 W/m·K (at 20°C/68°F)



Coefficient of Thermal Expansion	13.1–14.0 × 10 ⁻⁶ /°C (20–100°C/68–212°F)
Electrical Conductivity	35% IACS (International Annealed Copper Standard)
Modulus of Elasticity	10,000 ksi (69 GPa)
Poisson's Ratio	0.33
Specific Heat Capacity	0.215 cal/g·°C (900 J/kg·K)

Standards and Specifications

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

Advantages of 5052 Color Coated Aluminum Coil:

- High Durability: Our prepainted aluminum coils are corrosion-resistant, ensuring a longer lifespan.
- Aesthetic Appeal: The wide range of colors and finishes enhances the visual appeal of your products.
- Environmental Friendly: Our products are eco-friendly and can be recycled.
- Easy Maintenance: Minimal maintenance is required to keep the coils in top condition.
- Customization: We offer customized solutions to meet specific project requirements.

Applications of 5052 Coated Aluminum Coil:

- Architectural decoration: used to make various special-shaped materials, panels, exterior panels and curtain wall panels, etc.
- Automobile manufacturing: used to make automobile body panels, interior panels, door panels, engine hoods and other parts.
- Home appliance manufacturing: used to make the shell and internal materials of household appliances such as televisions, refrigerators, and air conditioners.

Packaging:

- 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)

