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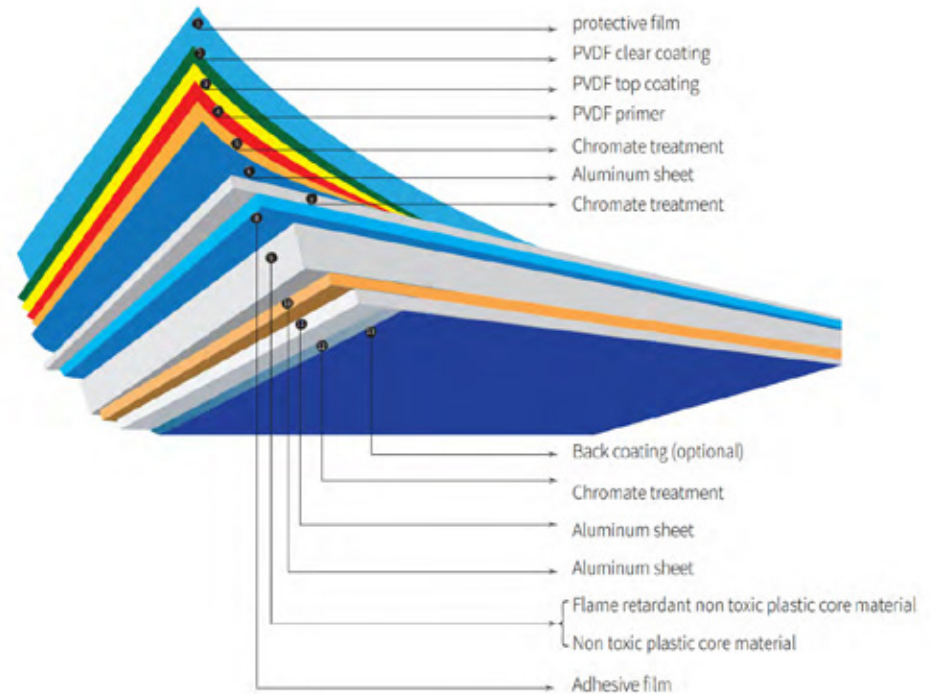
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ALUMINIUM COMPOSITE PANEL

Aluminum Composite Panel is a composite material made of chemically treated coated aluminum plate as surface material and polyethylene plastic as core material. The unique performance of aluminum-plastic composite board itself determines its wide use: it can be used for building exterior wall, curtain wall board, renovation of old building, interior wall and ceiling decoration, advertising signboards, display bench, purification and dustproof project.

1. Material composition:



2-Classification:

There are many varieties of ACP, and it is a new type of material, so there is no unified classification method so far, usually according to the use, product function and surface decoration effect.

Classification by purpose

2-01: ACP for building curtain walls

The minimum thickness of upper and lower aluminum plates shall be not less than 0.50 mm, and the total thickness shall be not less than 4 mm. Aluminum material should meet the requirements of the GB/T 3880, generally to use 1100,3000,5000 series of aluminum alloy plate, coating should be fluorocarbon resin coating.

2-02: ACP for exterior wall decoration and advertising

The upper and lower aluminum plates shall be rustproof aluminum with a thickness of not less than 0.20 mm, and the total thickness shall be not less than 4 mm. The coating is generally fluorocarbon coating or polyester coating.

2-03: Aluminum plastic panels for indoor use

The upper and lower aluminum plates generally adopt an aluminum plate with a thickness of 0.20 mm, and a minimum thickness of not less than 0.10 mm, with a total thickness of 3 mm. The coating adopts polyester coating or acrylic coating.

Classification by product function

2-04: Fireproof panels

The flame retardant core material is selected, the combustion performance of the product reaches the refractory grade (B1 grade) or the non-combustible grade (A grade), and other performance indexes must also meet the technical requirements of the ACP.

2-05: Antibacterial Anti-mildew

The coating with antibacterial and bactericidal effect is coated on the ACP, so that it can control the propagation of microbial activities and eventually kill bacteria.

2-06: Anti-static

The antistatic ACP is coated with antistatic coating. The surface resistivity is below $10^9\Omega$, which is smaller than that of ordinary aluminum plastic board, so it is not easy to produce static electricity, and dust in air is not easy to attach

Classification by surface effect

2-07: Decorated ACP

Apply various decorative coatings on the surface of ACP. The commonly used fluorocarbon, polyester, acrylic coating, mainly including metal color, plain color, fluorescent color, fluorescent color and other colors, with decorative effect, is the most popular variety.

2-08: Oxidized ACP

Using anodizing to deal with aluminum alloy panel in time has rose red, copper color and other unique colors, play a special decorative effect.

2-09: Film Decorative Composite ACP

That is according to the set technological conditions, the color film depends on the action of adhesive, so that the color film adhesive on the primer aluminum plate or directly on the degreasing aluminum plate. The main varieties are mountain grain, wood grain plate and so on.

2-10: Color printed ACP

Through the advanced computer printing technology, the color ink is printed on the transfer paper with various natural patterns, and then all kinds of natural patterns are copied indirectly on the aluminum. Can satisfy the designer's creativity and the owner's individualized choice.

2-11: Brush finished ACP

Aluminum alloy panel with surface BRUSH treatment, common gold wire and silver wire products, bring different visual enjoyment.

2-12: Mirror finished ACP

Aluminum alloy panel surface after polishing, like a mirror.



3-ACP Features

3-01: Super strong stripping

The aluminum-plastic composite board adopts a new technology, and the peeling strength, the most important technical index of the aluminum-plastic composite board, is improved to an excellent state, so that the flatness and weathering resistance of the aluminum-plastic composite board are improved accordingly.

3-02: Material easily processed

The weight per square meter is only about 3.5-5.5 kg, so it can reduce the harm caused by earthquake disaster and be easy to carry. Its superior construction property only needs simple woodworking tools to complete cutting, cutting, planing, bending into arc, right angle of various shapes, can cooperate with designers, make various changes, easy installation, quick reduction of construction costs.

3-03: Excellent fire resistance

ACP is flame-retardant material PE plastic core, two sides are extremely difficult to burn aluminum layer. Therefore, it is a kind of safety and fire-proof material, which meets the fire resistance needs of building regulations.

3-04: Impact resistance

Strong impact resistance, high toughness, bending non-damage paint, strong impact resistance, in the area where the wind and sand will not be caused by damage.

3-05: Hyper-tolerance

Since the use of PVDF fluorocarbon paint based on KYNAR-500, weather resistance has a unique advantage, whether in the hot sun or cold snow are not damaged in the beautiful appearance, can not fade for 20 years.

3-06: Uniform and colorful coating

After forming treatment and the application of Henkel skin film technology, the adhesion between paint and aluminum plastic plate is uniform, the color is diverse, the choice space is larger, and the individualized design requirement is satisfied.

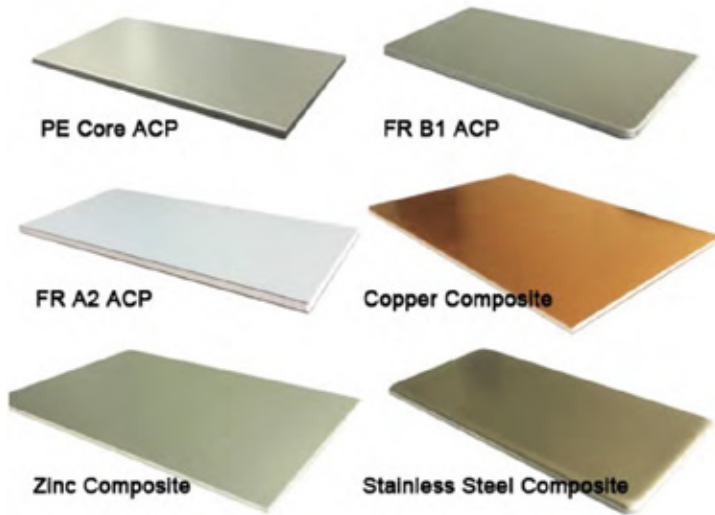
3-07: Easy to clean and maintain

There is a significant improvement in pollution resistance. In areas with serious air pollution, after a few years of use need maintenance and cleaning, ACP have good self-cleaning, only need to use neutral cleaning agent and clear water, after cleaning to make the panel permanent as new.

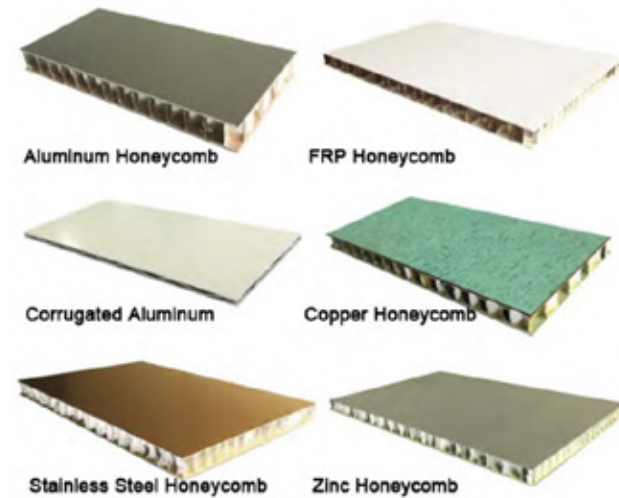


4-Types

4-01: Composite Panel ACP



4-02: Honeycomb & Corrugated Panels



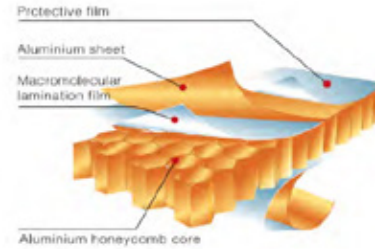
General Technical Data

Testing items		Result	Testing items		Result	Testing items		Result
Appearance qualit	Vesige	Indistinct	Weight	t4mm=5.7kg/m ²	Finish coating thickness	30±5 μ m		
	Coating omit	No	Outdoor temperature	No abnormality	Gloss tolerance	43(gloss56.8)		
	Ripples	No	Thermal expansion	1.59×10 ⁻³ °C ⁻¹	Pencil hardness	3H		
	Flaw	No	Deflection temperature	105 °C	Toughness(T-bend)	2T no rift.		
	Abrasion	No	Thermal conductivity	0.102kcal/mhr°C	Coating adhesive force	Class 1 (4B)		
	Scratch	No	Flexural rigidity	14.0×10 ⁴	Impact resistance(50kg.cm)	no depainting,no crack.		
	Aberration	Indistinct	Penetrating resistance	9.0kn	Grinding resistance	7.4L/μ m		
Dimensions deviation			180° peel strength	911.7N/mm.	Mortar resistance	24 Hrs Pat test exceed		
	Length	0~+0.4mm	Acoustic insulation	25dB	Humidity resistance	3000hr no blister		
	Width	0~+0.6mm	Bending elastic modulus	2.8×10 ⁴ MPa	Boiling-water resistance	No change		
	Thickness	-0.02~0mm	Shearing resistance	28.6MPa	Salt-spray resistance	3000 hrs no blister		
	Diagonals windage	1.7mm	Fire propagation	Qualifide	Acid resistance	No change.		
	Edge unstraightness	0.4mm/m	Wind-pressure resistance	Passed	Alkali resistance	Passed		
	Warpage	2.0mm/m	Properties against water	Passed	Solvent resistance	Passed		
		Properties against air	Passed	Color retention	ΔE<5			
		Bending strength	112MPa	Chalk resistance	Max value:8unit			
		Minimum bending radius	=300mm	Gloss retention	90%			



Alu. Honeycomb Composite Panel

Honeycomb is an aluminium composite panel consisting of two cover sheets and a honeycomb core of aluminum bonded in a continuous process, which allows the production of large size panels with superior flatness. The material is rigid as well as resilient, and with high peel strength and excellent mechanical properties. With regard to finish of the surface, high quality lacquering system contributes to outstanding resistance to weather and industrial pollution. These particular characteristics make IDEABOND Honeycomb the ideal choice, not only for outdoor application, such as facade cladding, roofing, balconies, shelters etc., but also for interior design like artistic ceiling.



SPECIFICATION

Thickness(H)	Entity	6 mm	10 mm	15 mm	20 mm	25 mm
Thickness of ALU front sheet(d1)	[mm]		1.0 mm			
Thickness of ALU back sheet(d2)	[mm]	0.5	0.5	1.0	1.0	1.0
Weight	[Kg/m ²]	4.8	5.1	6.8	7.2	7.5



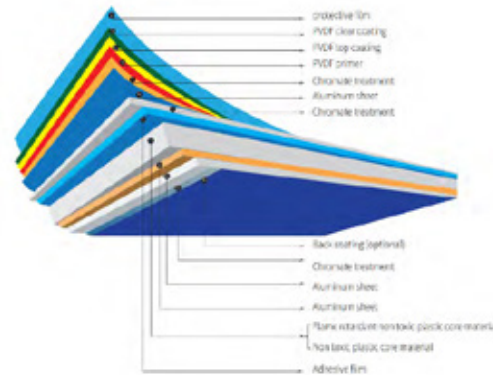
Application Scopes

AHCP is used as cladding for diverse applications such as office buildings, hospitals, convention centers, airports, hotels, and critical design elements such as entrances, canopies, column covers and interiors, image programs, etc. Now let's use IDEABOND to add an image premium to the applications:

Curtain walls	Interior/Exterior decoration
Floor, ceilings	Washroom/Kitchen
Furniture	Roofs, roof edging
Elevators	Image programs
Balcony	Shops & tunnels



ACP Constitution Structure



ITEMS	THICKNESS(mm)	ALL THICKNESS(mm)	PANEL WIDTH(mm)	PANEL LENGTH(mm)
Standard	3,4	0,21,0,5	1220	2440
Options	5,6	0,12-0,6	900,1250,1500,1650	≤ 8000

Fire Behavior

ACP FR retards the rapid spread of fire through the non-inflammable aluminium cover sheets which protect the poly-ethylene core without toxicity.

ACP FR is a fire-safe material with a flame-retardant mineral core to prevent the proliferation of flames and restrict the development of smoke detrimental to evacuation activities. It also meets the mandatory requirements for interior and exterior use in most countries, The following technical data is from the test report issued by SGS U.K.CO.,Ltd & SGS U.S. Testing Company Inc, respectively:

TESTING ITEMS	TEST CONDITION	RESULT	CONCLUSION	STANDARD
Fire safety test	BS 476:Part 6:1989	Total fire propagation index:0.05	Class 0	BS 476:Part 6:1989
Fire safety test	Relative Humidity of 50 ± 10° F Temperature of 23 ± 2° C	Flame spread at 1.5min:60mm Final flame spread:60mm	Class 1	BS 476:Part 7:1997
Fire safety test	Relative humidity of 50 ± 5° F Temperature of 73 ± 5° F	Flame spread index:10 Smoke developdd value:15	Class A	ASTM E-84-04

BS:British Standard; ASTM: American Society for Testing and Materials

For more details, please refer to a full set of IDEABOND data sheets or consult our nearest technical advisor for advice.



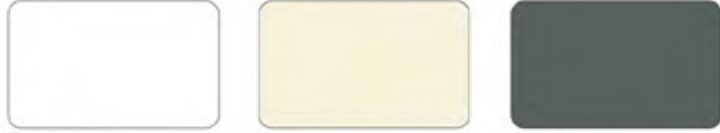
POLYESTER(PE)



AE-31A Pure white

AE-31D Rice white

AE-32R Grey white



AE-31C Flat white

AE-31B Ivory white

AE-32C Mouse grey



AE-37E Rose red

AE-37B Brown red

AE-39A Black



AE-38C Salmon

AE-37C Mauve

AE-37A Red



AE-38A Pure yellow

AE-38B Advertising yellow

AE-38E Orange



AE-35F Grass green

AE-35A Verdure

AE-35B Green



AE-36A Light blue

AE-36C Post blue

AE-36B Dark blue

POLYESTER(PE)



AE-32D Silver metallic

AE-32E Silver

AE-32H Mouse gray metallic



AE-32F Champagne silver metallic

AE-32K Champagne gold metallic

AE-33B Light gold metallic



AE-35A Brown copper metallic

AE-39A Jade metallic

AE-39E Black metallic

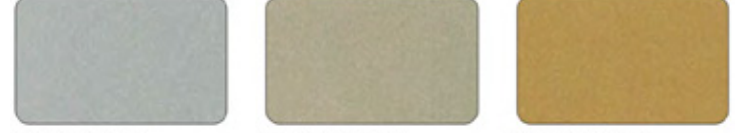
HIGH GLOSS



AE-101 High gloss red

AE-102 High gloss black

AE-103 High gloss white



AE-106 High gloss blue

AE-107 High gloss orange

AE-108 High gloss yellow

PEARL



AE-60A Pearl white

AE-60B Pearl yellow

AE-66A Pearl blue

SPECTRA



AS-915

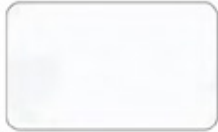
AS-908

MORE
www.idealbond.com

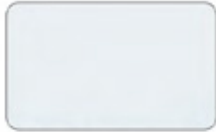


ACP Color Atla

PVDF



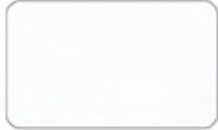
AF-406 Pure white



AF-421 Pale white



AF-410 Mouse grey



AF-404 Flat white



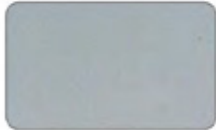
AF-402 Ivory white



AF-364 Blue metallic



AF-403 Silver metallic



AF-408 Silver



AF-411 Smoke silver



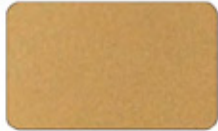
AF-405 Champagne metallic



AF-407 Champagne gold metallic



AF-425 Brown silver



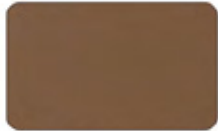
AF-401 Gold metallic



AF-418 Brown copper metallic



AF-417 Coffee metallic



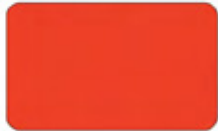
AF-416 Brown coffee



AF-400 Mouse gray metallic



AF-461 Black metallic



AF-370 Red



AF-360 Blue



AF-380 Orange

MIRROR



AE-201 Silver mirror



AE-202 Gold mirror



AE-206 Black mirror

STONE



AE-501



AE-504



AE-506



AE-507



AE-509



AE-510

WOOD



AE-301



AE-302



AE-303



AE-304



AE-305



AE-306

BRUSHED



LE-JA32A Silver brushed



LE-JA32B Gold brushed



LE-ZC32P Stainless steel brushed

TOUCH



LE-7638A Black touch



LE-7638B Wood touch



LE-7638C Stone touch

