



ALUCOSUN



ENLIGHT YOUR INSPIRATION



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OUR CONNECTION WITH YOU

With more than 20 years' experience Alucosun® has spread its wings across the world by providing its customers with stable and quality products. We are ready to be the leading global manufacturer with the latest technology and superior customer aftercare and support.

From the very onset we have been keeping its equality yes open for the entire journey, from the adoption of raw material to the final form of the product. Every step of our work, from design to manufacture is following our quality control system, which we have composed with a team of professional inspectors using advanced laboratory apparatus. We assure that on each step all the products follow the international standards: ASTM (USA), NFPA 285 (USA), ETA Certificate (EU), DIN European Standard (Germany), ITB Certificate (Poland).

AT ALUCOSUN®,
WE SHARE THE COMMON
FAITH, THAT NOT ONLY
AN APTITUDE BUT ALSO
AN ATTITUDE CAN
DETERMINE OUR FUTURE

OUR MISSION

Alucosun team is committed to support our customers by providing the on-time delivery of superior reliable products and services of exceptional value. All of these factors can assist in gaining the competitive advantage in your market.

We aim to sustain our vision and mission by constantly seeking improvement and development via continuous education and learning. We aim to develop new technologies and best business practices.

For full sustainability, our employees are our pride, and we aim to provide a pleasant, nurturing and growth orientated environment which encourages our employees to be highly productive and to grow personally and professionally.

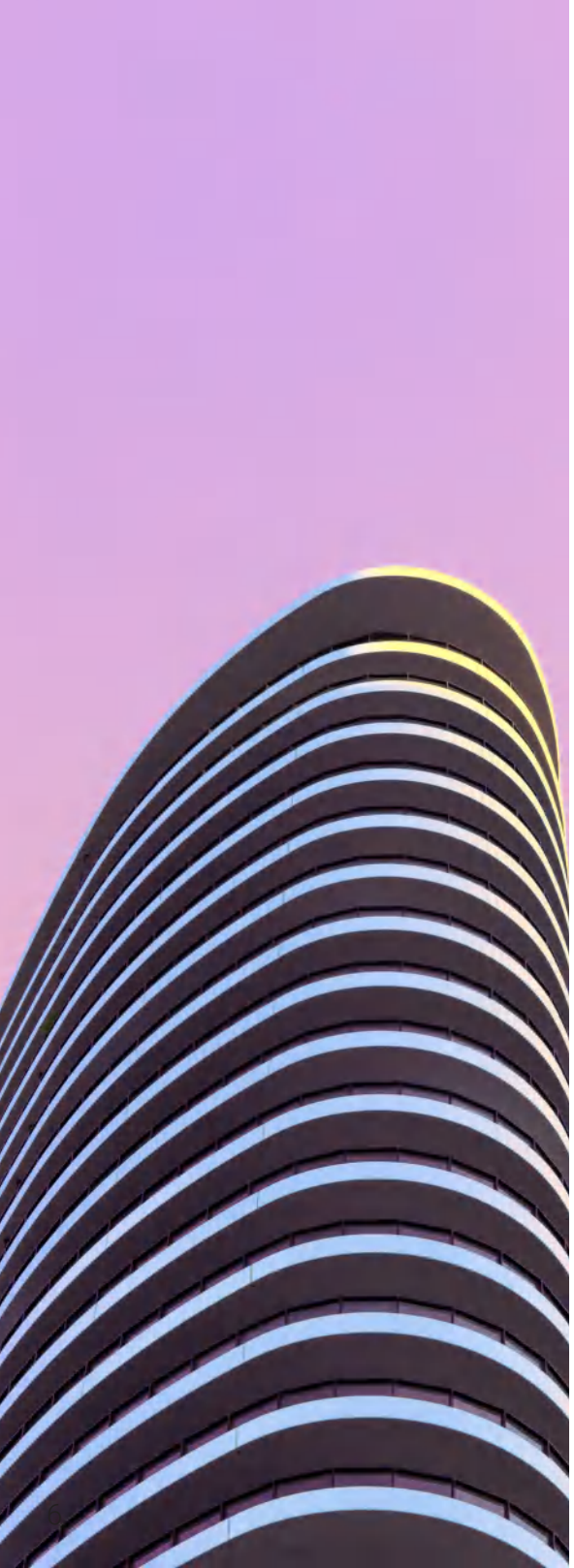
Alucosun is equipped with:

- 3 coating production line
- 5 lamination production lines
- 2 sets of winding & rewinding machines
- 2 chemical cleaning lines
- 2 speed coating lines
- 3 composition Lines

Our production capacity per year is:

- Aluminium Composite Panels - **7,6 millions sqm**
- Aluminium Lattic Panels - **1 million sqm**
- Aluminium Coated Coils - **18500 tons**

COME TO COOPERATE WITH US
AND MAKE A RELIABLE PARTNER OF EACH OTHER!

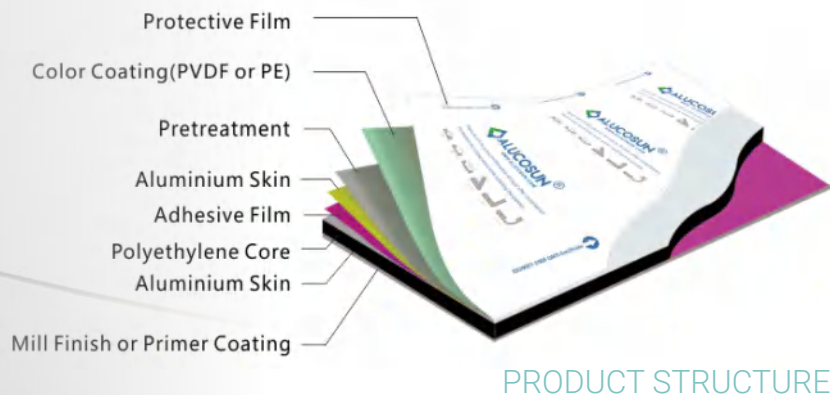




OUR PRODUCTS

PE PANEL

Alucosun offers excellent application versatility by an extensive array of colors and customized finish options. We offer reliability in performance by durable yet flexible surface and core. Alucosun PE Panel is composed of two aluminium sheets and a polyethylene core that are laminated in the continuous process with high temperature, which ensures remarkable color consistency and high strength.



Extremely smooth surface and various colors:

RAL and Pantone colors, including high gloss (85–95%), matt gloss, brushed, mirror, and wooden finished board and customized to your requirements.

Various dimensions:

Width is from 1000 mm to 2000 mm. Length can be customized to your needs beyond the standard size according to the processing techniques

Superior weather-resistance and rub-resistance:

Surface treatment with high-grade ultraviolet-resistant polyester paint (ECCA) request, guarantee 8-10 years; if use the KYNAR 500 PVDF paint, guaranteed 15-20 years

Easy processing and various modalities:

Processed to various forms via cutting, bending, punching, sticking and painting

Environment friendly:

Our production facility is eco - friendly with zero pollution

ADVANTAGES

DIMENSIONS

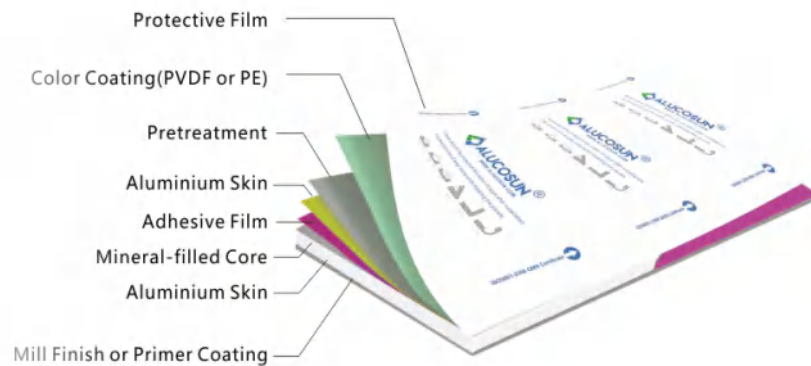
Item	Range	Standard Size [mm]
Panel thickness	2 - 8 mm	2 , 3 , 4 , 6
Aluminium skin thickness	0,1 - 0,5 mm	0.15 , 0.21, 0.3, 0.4, 0.5
Width	1000 mm - 2000 mm	1000, 1220, 1250, 1500, 1550, 2000
Length	³ 1000 mm	2400, 3050, 3660, 4050

TEST REPORT

Testing Item	Standard	Result
Unit weight	ASTM D792	3 mm = 3.8kg/m ² ; 4 mm = 5.5kg/7 m ²
Thermal expansion	ASTM D696	24 Đ 28
Thermal deformation temperature	ASTM D648	115 jC
Thermal conduction	ASTM D976	0.102 kcal/ m.hr jC
Flexural rigidity	ASTM C393	140.0 * 10 ⁵
Impact resistance	ASTM D2794 Đ 93	1.64 kgf
Adhesive strength	ASTM D903	0.77 kg/mm
Flexural elasticity	ASTM D790	4030 kg/mm ²
Shear resistance	ASTM D732	2.7 kgf/mm ²
Combustion expansion coefficient	ASTM E84	QUALIFIED
Perfomance of wind pressure resistance	ASTM E330	PASSED
Properties against water	ASTM E331	PASSED

With the improvement of core technology, Alucosun FR ACP has been developed for strict requirements of fire retardancy regulations in architecture products. Alucosun FR ACP has been requested by worldwide architects and building owners not only by its superb properties such as extreme flatness, high rigidity yet excellent form-ability, but also, the most important, its impressive performance in fire-proof benefiting from its mineral filled core.

Alucosun FR ACP can be applied on the architecture products in a wide range, especially the public buildings such as shopping malls, hospitals, airports and stations.



PRODUCT STRUCTURE

ADVANTAGES

Fire-resistant:

according to the fire rating and fire retardancy Alucosun FR ACP series is classified as class B1 and class A2

High strength:

the fire-proof aluminium composite panel use high quality aluminium with greatly enhanced strength, and ensure performance of wind-pressure resistance, shockproof and anti-impact

Smooth surface:

the fire-proof aluminium composite panel provides superior and smooth surface, satisfying the modern building with perfect appearance

Exertion and Design:

The fire-proof aluminium composite panel has a series of glosses and shapes to meet any designers' specific needs and achieve perfect results.

TEST REPORT

DIMENSIONS

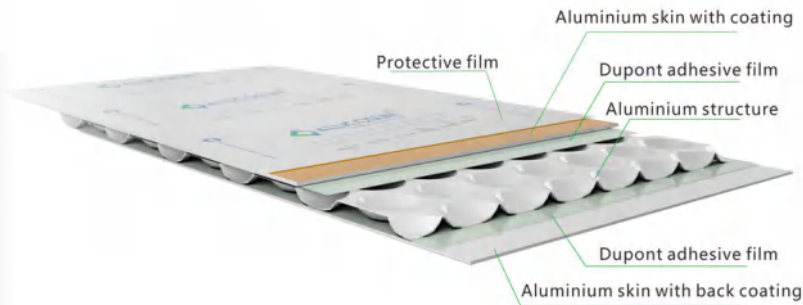
Item	Recommended Size
Panel thickness	3 mm , 4 mm , 6 mm
Aluminium skin thickness	0.3 mm, 0.4 mm, 0.5 mm
Width	1250 mm, 1500 mm, 1575 mm, 2000 mm
Length	1000 Ø 6000 mm
Weight	4 mm B1: 6.8 kg/m ² 4 mm A2: 8kg/m ²

Country	Method	Alucosun B1	Alucosun A2
Australia	AS 1530 Ø 3	No ignition	No ignition
EU	EN 13501 Ø 1	Class B, s1, d0	Class A2, s1, d0
Germany	EN 1187 (method 1) / DIN 4102 Ø 7	PASSED	PASSED
Malaysia	BS 476, PART 6&7	Class 0; Class 1	Class 0; Class 1
Singapore	EN 13501 Ø 1	Class B, s1, d0	Class A2, s1, d0
UAE	EN 13501 Ø 1	—	Class A2
	ASTM Ø E Ø 84	Class A	—
UK	BS 6853	—	Meets requirements of LUL limited combustible - noncomпустible
	BS 476, PART 6&7	Class 0	—

FR ACP PANEL

Alucosun introduces the new generation composite panels in innovated aluminium core instead of normal polyethylene or mineral-filled core. This new product named Alucosun Aluminium Lattice Panel is developed by Alucosun for strict requirements of fire retardancy regulations in architecture products.

Constructed by 100% aluminium structure, Alucosun Aluminium Lattice Panel is combined with extraordinary fireproof performance, lightweight and ease of fabrication of composites makes Alucosun aluminium lattice panel an architects' dream.



PRODUCT STRUCTURE

Aluminium Lattice Panel is composed of non-combustible aluminium core and sandwiched between 0.7mm and 0.5mm thick aluminium (exterior grade of AA3003 or AA5005) for back surface.

Light weight:

With the innovation of core technology Alucosun Lattice Panel has only 4.3kg/m² weight which is lighter than other materials with the same rigidity, which allows to save cost in transportation and labor

Fireproof performance:

This structure assures the panel of non-combustibility and makes it more reliable and popular in all façade applications, especially in USA (NFPA285), UK (BS 476-4 standard) and Australia (AS1530.1 standard) where there is a higher requirement and demand on fire retardancy

Formability:

Aluminium Lattice Panel aluminium core is convenient to be cut and grooved and less wearing on routers, it takes on many different shapes and its perfect formability does not affect its stability or flatness

Environment friendly:

being a member of our earth, we have the responsibility to protect our homeland. Our corrugated aluminium core is 100% recyclable. Also there is no pollution during the production and application.

ADVANTAGES

DIMENSIONS

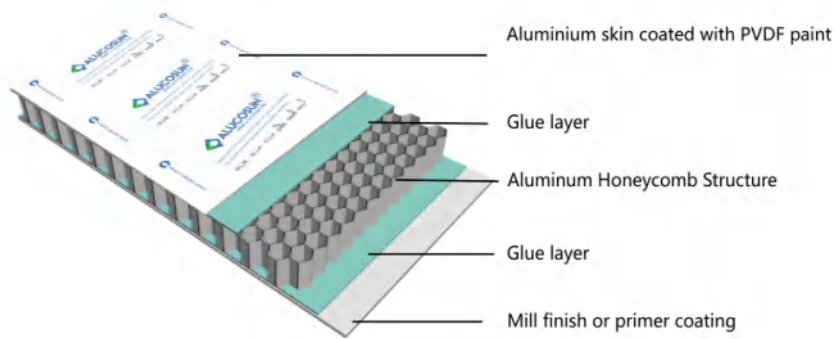
Item	Specifications
Panel thickness	3 mm , 4 mm
Front Aluminium skin thickness	0.5 mm, 0.6 mm, 0.7 mm
Width	1000 mm - 1500 m
Length	1000 Ø 5000 mm
Alloy Type	AA3003; AA5005
Weight	3.8 kg/m ² (0.5, 0.4/4 mm) 4.3kg/m ² (0.5, 0.4/4 mm)

TEST REPORT

Testing Item	Standard	Result
Peel strength	GB/T 17748 - 2008	³7 N/ mm
Tensile strength	ASTM D638 - 10	69 Mpa
Shear Strength by punch	ASTM D732 - 10	38 Mpa
Weighted Sound Reduction Index	ISO 717 - 1: 2013	22 (-1, -2) db
	BS476 - 4	Non - compustible
Fire Racing	BS EN 1350 - 1	Fire behavior - A2 Somke production - s1 Flaming droplets - d0
	AS 1530.1 AS 1530.3	Not deemed Compustible Ignitability Index 0 Heat Evolved 0 Spread of Flame 0 Somke Developed 1
	ASTM E84	Class A

ALUMINIUM LATTICE PANEL

Compared to other wall decoration materials, Aluminium Honeycomb Panel has good heat preservation and heat insulation. The reason is that the air between the face and the bottom layer is separated into lots of cellular closed holes, for which the propagation of heat and sound wave is extremely limited. Today, Aluminium Honeycomb Panel has been widely used in the decoration of modern architectures, train, automobile and ship manufacturing industries.



PRODUCT STRUCTURE

Aluminium Honeycomb Panel is composed of two aluminium sheets and a honeycomb aluminium core, which like so many I-shaped beams distributing the pressure from different directions to well ensure the flatness of the panel even in large areas. Thanks to its unique structure, honeycomb has an impressive behavior in anti-load.

ADVANTAGES

- High rigidity
- Environmentally friendly
- Unlimited color and finish range
- Extremely light weight
- Trouble-free maintenance
- Anti-wind load, anti-thermal expansion
- Superior surface flatness
- Economical fabrication on site
- Great acoustic and seismic insulation

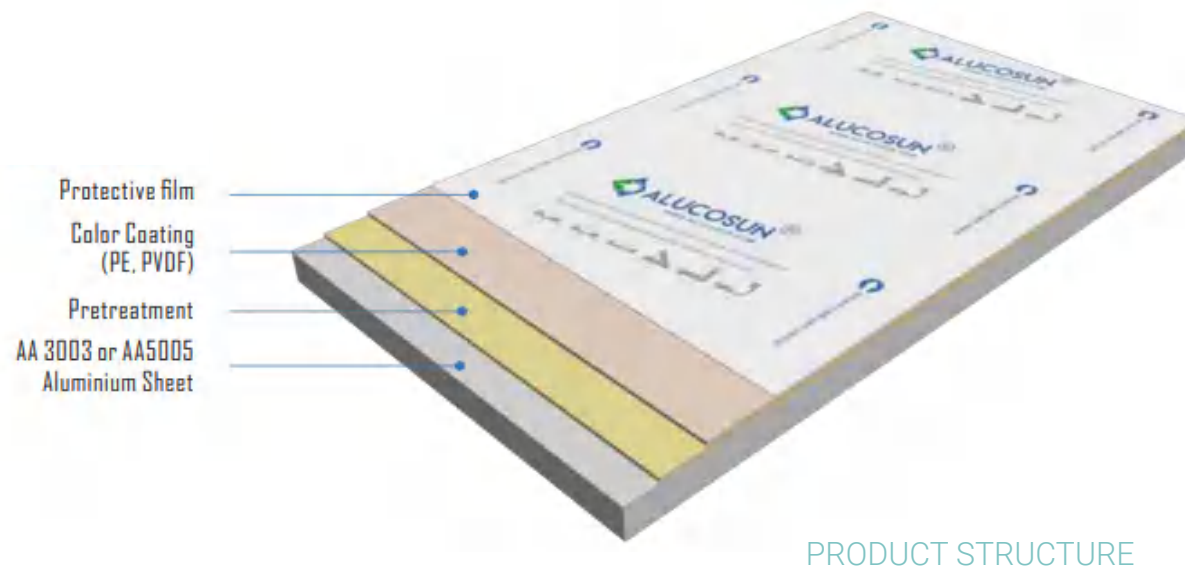
DIMENSIONS

Standard thickness [mm]	Standard width [mm]	Standard length [mm]
10	1250	2500 / 3200 / 4000
10	1500	2500 / 3200
15	1250	2500 / 3200
15	1500	2500 / 3200
20	1500	2500 / 3200
25	1500	2500 / 3200

TEST REPORT

Item	Unit	Alucosun			
		10	15	20	25 (max 50)
Standard thickness	mm	10	15	20	25 (max 50)
Front skin thickness	mm	³ 0.8			
Rear skin thickness	mm	³ 0.7			
Panel size	mm	Width: ² 2000 Length: ² 3000			
Weight	kg/m²	5.06	.7	7.07	.3
Rigidity	kKcm²/m	21 900	75 500	138 900	221 600
Modulus of elasticity	N/mm²	700 000			
Cell size	mm	6 mm - 12 mm			
Sound Reduction Index	dB	21	22	23	25
Thermal resistance	m²k/w	0.0074	0.0084	0.0089	0.0093
Temperature resistance	°C	-40 to +80			

Alucosun SOLID is Aluminum Solid pre-painted at panels of major aluminum alloys with various thickness and nishing options well suited for façade, roof, ceiling applications. It is regarded as one of the most durable, safe, economic and ecofriendly cladding available nowadays. Alucosun SOLID is classified as Class A1 Fire Resistant facade tested against EN13501 and its durability attributed to PVDF coating properties with a wide range of colors and finishes suits to variety of applications.



Eco - friendly:

Aluminum is considered as most recycled industrial metal; it is free from heavy metal erosion. Aluminum can be recycled without quality variation. Recycled aluminium is indistinguishable from virgin aluminium, process does not produce any change in the metal, so aluminium can be recycled indefinitely. Recycling aluminium saves 95% of the energy cost of processing new aluminium.

Pigments used in the paint system during production of Alucosun Solid ® is non-hazardous. While coating the Solid panels the technology used for processing that allows the solvents released from the paints are combusted and fed back to the process.

DIMENSIONS

Description	Range	Standard
Panel thickness	2 - 5 mm	2 mm, 3 mm
Width	1000 - 1500 mm	1250 mm, 1500 mm
Length	1000 - 5800 mm	2440 mm, 3050 mm, 3200 mm
Alloy Type	AA 1000, AA 3003, AA 5052	AA 110, AA 3003
Weight	8.2 kg/m ² for 3 mm	

Fire Safety:

Alucosun SOLID is a tested in accordance with EN13501 it is classified in the class A1 which is literally non-combustible product. In compliance with NFPA life safety code and various regulatory authorities non-combustible claddings are allowed in all type of building without restriction. In this regard, Alucosun SOLID with class A1 can be installed in buildings of any height and type.

TEST REPORT

Testing Item	Result
EN 13501 - 1	Class A1
AS 1530.1	non - combustible

SOLID PANEL

Stainless Steel Composite Panel is comprised of two sheets of stainless steel sandwiching a solid core of extruded thermoplastic material formed in a continuous process using no glues or adhesives between dissimilar materials. The core shall be free of voids and/or air spaces and not contain foamed insulation materials. The bond between the core and the skins shall be a chemical bond.

APPLICATION: Track body, surface of elevator and household appliances, façade decoration



SPECIFICATION

Type	Decorative stainless steel sheet
Thickness	0.3 mm - 3 mm
Size	1000*2000 mm, 1219*3048 mm, customized max width 1500 mm
Grade	201, 304, 304 L, 316, 316 L, 430, etc.
Available Finishes	No4. Hairline, Mirror, Etched, PVD color, Embossed, Vibration
Available Color	Gold, Ross Gold, Champagne Gold, Copper, Bronze, Black, Blue, Purple, Green

STEEL COMPOSITE PANEL

COLORS AND FINISHES

Various color and finish options make Alucosun ACP a favorite choice of building envelope. Variety of spectra, durability of the paint systems quality of the finish etc. makes it a suits to any application of cladding whether it is a commercial building, iconic structure with unique identity or an established brand. Alucosun ACP offers a variety of standard and custom finishes out of in-house coil coating facility. Alucosun ACP is surface finished with PVDF and NANO paint system in continuous coil coating process which ensure quality and consistency in compliance with AAMA 2605 specification.

PVDF

PVDF paint system with composed 70% PVDF resin is known for high resistance to UV rays and environmental effects therefore Alucosun® is durable and consistent performance in extreme weather conditions.

FEVE

FEVE paints are known for their excellent durability. The superb chemical and physical properties of these quality paints have been well recognized and proved by the worldwide users and architects during the past forty years and now this is still continuing every day.

NANO PVDF

NANO- PVDF is a self-cleaning paint system. Such Paint system provides an additional clear top coat with highly crosslinked NANO particles on PVDF finish; which ensures smooth surface. Smooth and clear surface makes dirt and dust difficult to stick on which gives the building an always clean look. PVDF and NANO paint systems are highly durable assures 15-20 years of finish warranty.

ANODIZED

ANODIZED panels with various finish options are available in Alucosun however it is subject to certain time and size ® limitations. Naturally protected by anodized layer panels are highly durable scratch resistant provides warranty about 30 Years.

PE AND HDPE

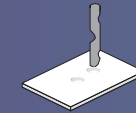
PE and HDPE paints are used widely in many applications thanks to the extensive ranges of colors and economy-consideration, now the guarantee years can be extended from 5 years to 8 years with the different types of coating. HDPE finishes are also available as custom paint system.

MULTI - FINISHES

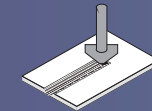
Versatility in applications encourages us to search and develop unconventional finishes to fuel the passion of providing unlimited options. Some of the major finishes available in our Aluminum products are as below, however it is not limited here; if you can imagine we can create it:

**SOLID • METALLIC • SPECTRA • GLOSSY • MATTE • BRUSH • MIRROR • TIMBER • STONE • NATURAL - COPPER
TITANIUM STAINLESS STEEL**

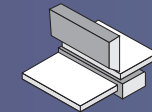
MECHANIZATION AND ASSEMBLY SYSTEM / FIXING SYSTEM



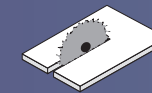
Drilling



Routing



Shearing



Sawing and Cutting



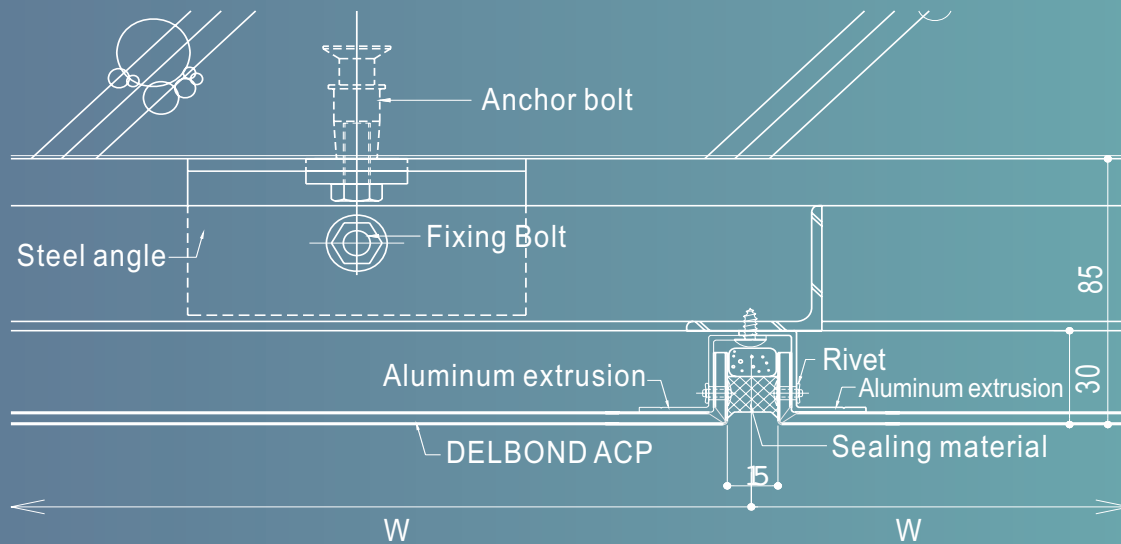
Bending with a Panel Folder



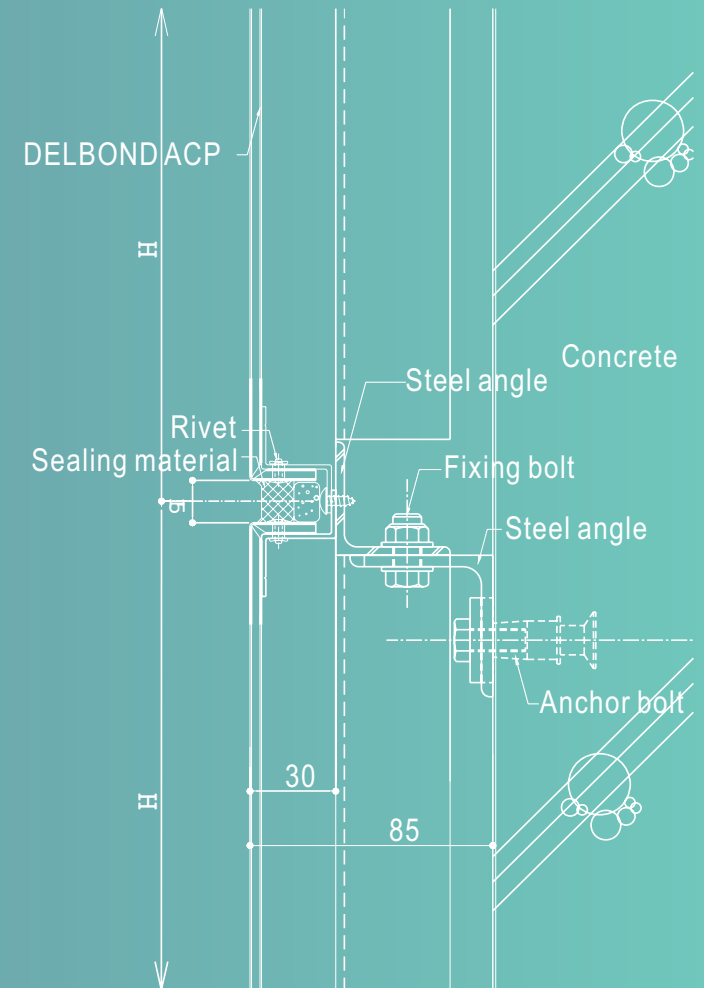
Hot Air Welding

TYPICAL FIXING

Horizontal section



Vertical section



QUALITY ASSURANCE



OUR AIM IS TO ENSURE **OUR CUSTOMERS**
ARE **100% CONFIDENT** IN THEIR SUPPLY

PRE-PRODUCTION INSPECTION

inspection of all raw materials prior to production

extensive laboratory testing prior to production

testing and simulation of a production on a micro scale before commencing a full production run

RAW MATERIALS INSPECTION

a perfect panel like paints, aluminium mill coils, adhesive film, and nonflammable core or LDPE core

a strict system from Receive, track and trace of all these materials

LABORATORY TESTING BEFORE PRODUCTION

testing solvent property and UV Testing to make sure in good condition to make for real production

DURING PRODUCTION INSPECTION

our workers who are well trained with more than 5 years' experience for online tracking and inspections tracking and testing online production every 30 minutes.

from the paints performance, the dimension and weight tolerance, the peel-off strength testing, we retain on-site all ACP samples hourly for next step tracking purpose

ON-LINE PRODUCTION INSPECTION BY WORKERS

OFF-LINE PRODUCTION INSPECTION BY PROFESSIONAL INSPECTORS

a team of the inspectors who are responsible for all export orders according to ISO 9000

AFTER PRODUCTION INSPECTION

outside exposure testing - all production batch ACP samples are kept outside for 30 days under sun exposure; Alucosun inspectors test the sample every week to monitor the peel-off strength data if stable

peel-off strength testing under low-high temperature - besides the on-site testing, Alucosun inspectors also inspect the same samples under high temperature (80°C) and low temperature (-40°C); shift the same samples every two hours from cold to hot, in total 25 times to monitor the performance of the data

sample record room - all above testing samples and technical data kept in data room for 10 years based on our guarantee times; all purpose for tracking and inspection is to limit the risk of any de-lamination future and trace after production

PRE-SHIPING INSPECTION

every signage panel must be flattened and checked again before packing

every package for products must be followed strictly accordingly to clients standard. From package firmness, seaworthy, ease to uploading



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