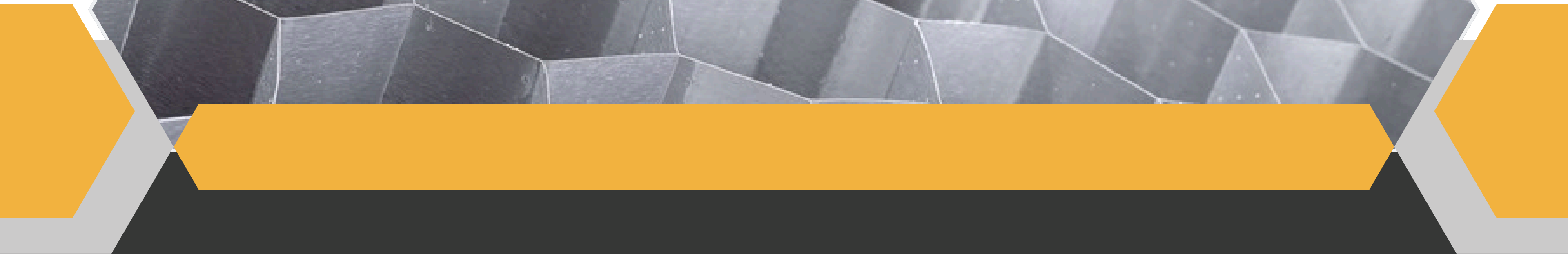
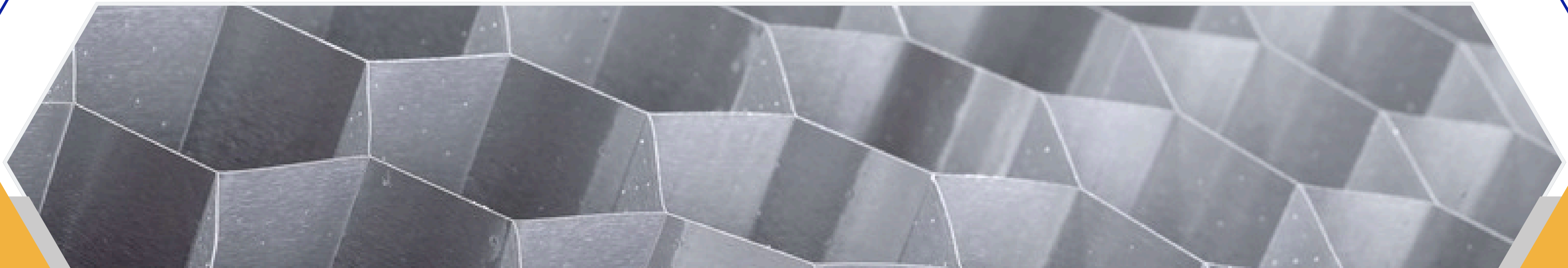
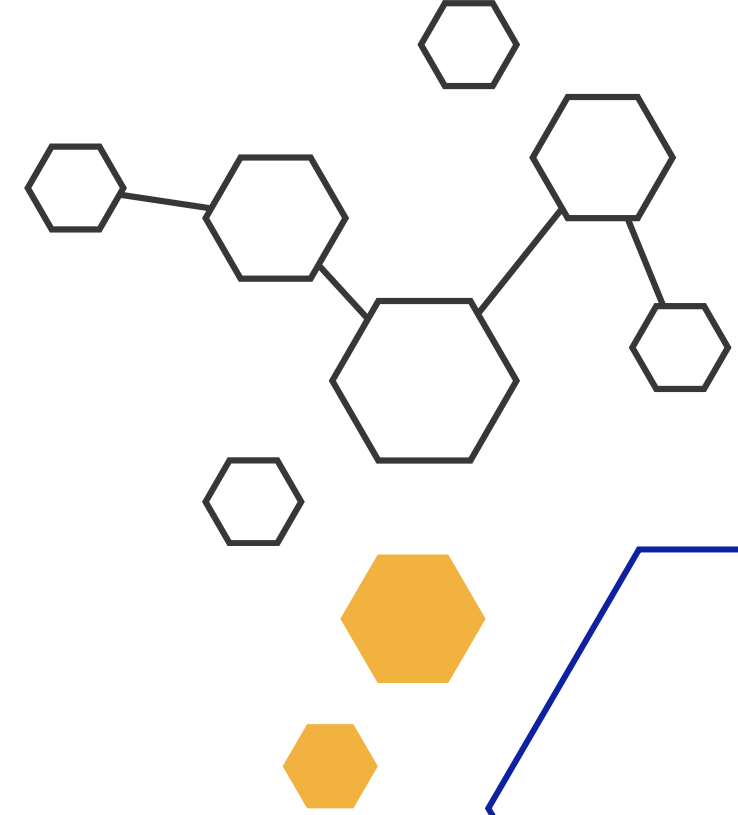


*ulike*

# COMPANY CATALOG





# TODAYS AGENDA



**01**

Company Overview

**02**

Our Products

**03**

Production Process

**04**

Internal Audits and Compliance

**05**

Risk Management

**06**

Documentation and Control



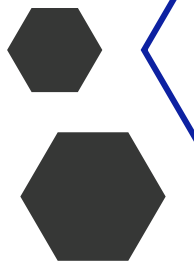
# COMPANY OVERVIEW

ulike

Our company is a large product enterprise specializing in the production and processing of indoor and outdoor metal single-layer aluminium veneer, aluminium honeycomb panels, corrugated panels, metal ceilings, fluorocarbon spraying and aluminium profile spraying, integrating research and development, design, production and sales services in one professional enterprise.

The company is located in the rich Pearl River Delta hinterland - Nanhai, adjacent to Guangzhou, Foshan and other important economic zones, with good market information and technical information environment. The factory covers an area of more than 6,000 square metres and has more than 100 employees and a large number of excellent management and technical personnel. The company has introduced Japanese computer numerical control sheet metal processing equipment, a small cyclone automatic spraying production line using Swiss Golden Horse spray gun, and a fully automatic fluorocarbon spraying production line, which makes the product quality reach the international level. The company has an annual production capacity of 300,000 square metres of metal single-layer curtain wall panels, 600,000 square metres of metal aluminium alloy ceilings and more than 400,000 tonnes of aluminium profile processing and spraying, and has successfully designed and contracted hundreds of influential domestic building decoration projects, and all of them have been praised by customers for their excellent product quality and good service.

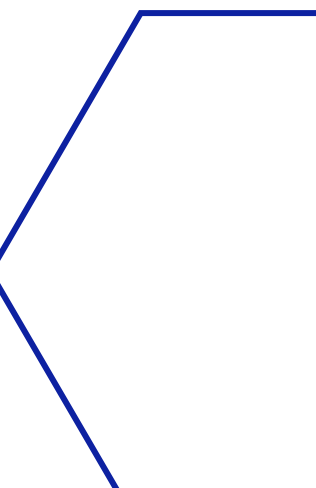
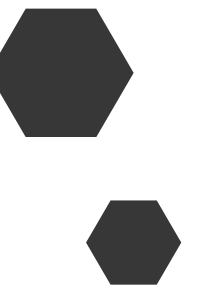
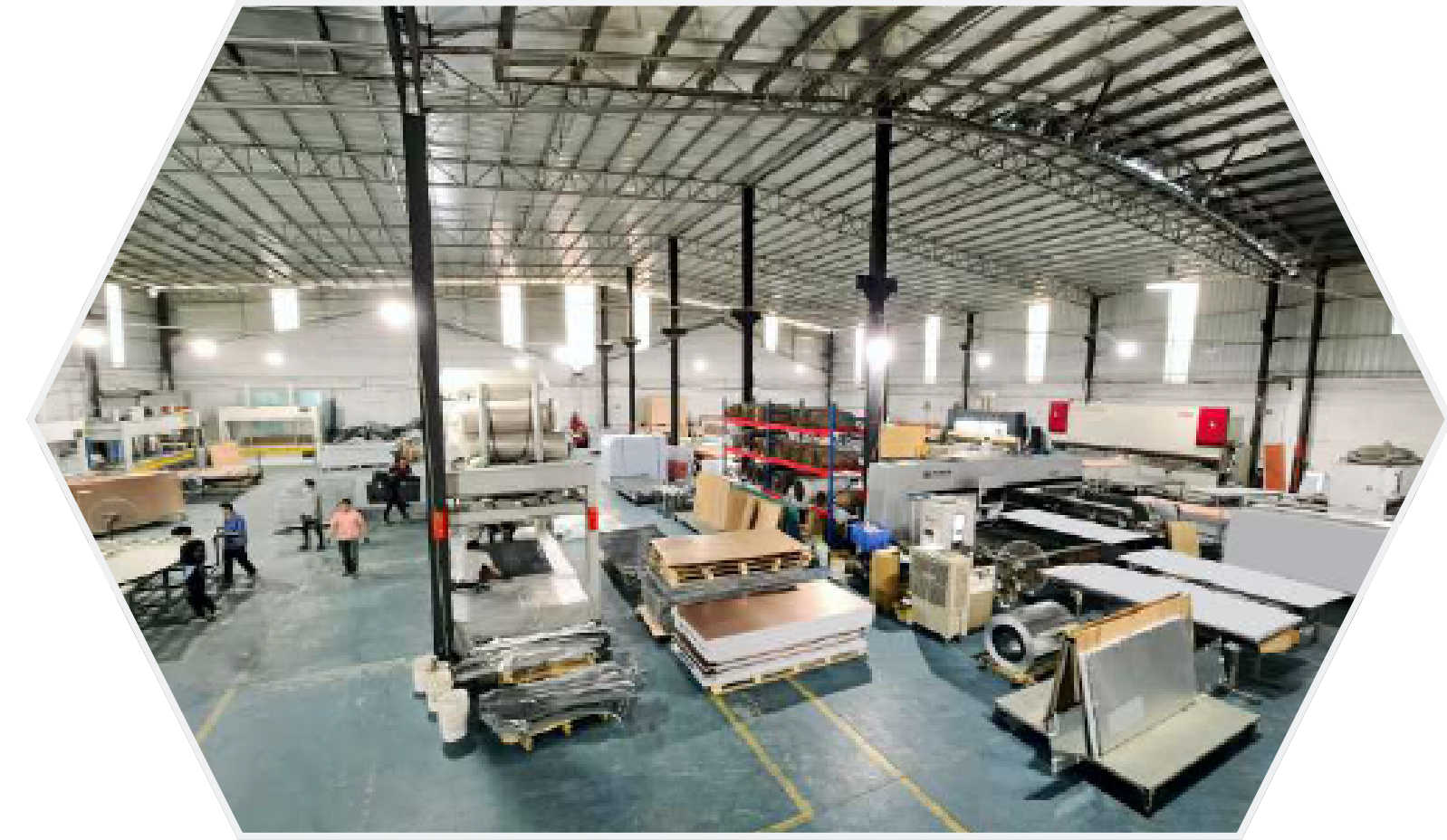
Our company has a large sales network in China, with offices or product agents in all major cities. We pay attention to product quality, strengthen the modern management and management consciousness, constantly devote to product development, rely on science and technology, innovation, acceptance quality management policy; hard work and entrepreneurship, through the unremitting efforts of all staff and the community's strong support, products are exported to domestic and foreign. The company follows the quality policy of "quality first, customer first, innovation and excellence", and is dedicated to providing excellent products and more comprehensive and better services for our customers, and to depict the splendid tomorrow of China's decoration industry together with the community.



# COMPANY OVERVIEW

## Ulike Corporation - Factory

- Our enterprise uses advanced production technology and techniques, advanced testing equipment and methods, and scientific operation and management mode to ensure high quality products and first-class service. Taking customer satisfaction as the standard, we strengthen the quality and improve the testing means. Based on international testing standards, we strictly follow ISO9001:2000 quality management system.
- Production automation can maximise efficiency and reduce errors caused by hand, thus improving product quality and reducing production costs. Therefore, we continue to introduce advanced production technology and production equipment at home and abroad, while constantly learning from foreign perfect production management system, so that our productivity has been greatly improved and can guarantee the long-term stability of quality. At the same time, we have a number of excellent engineers and production technicians, and our workshops are scientifically managed and modularised to produce each product with first-class quality.



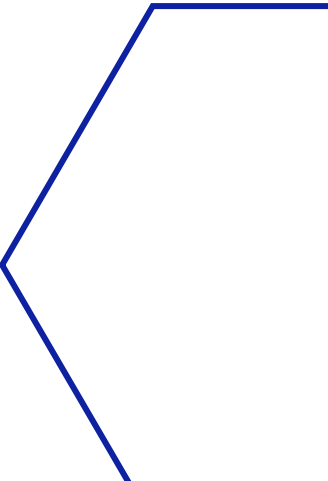
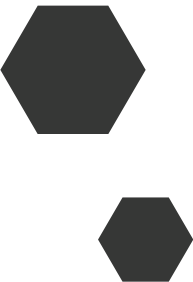
# HONEYCOMB PANEL WORKSHOP

## HONEYCOMB PANEL PRODUCTION PROCESS

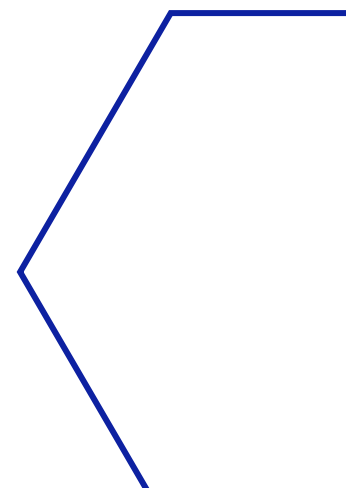
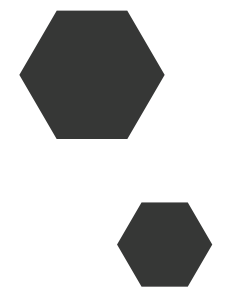
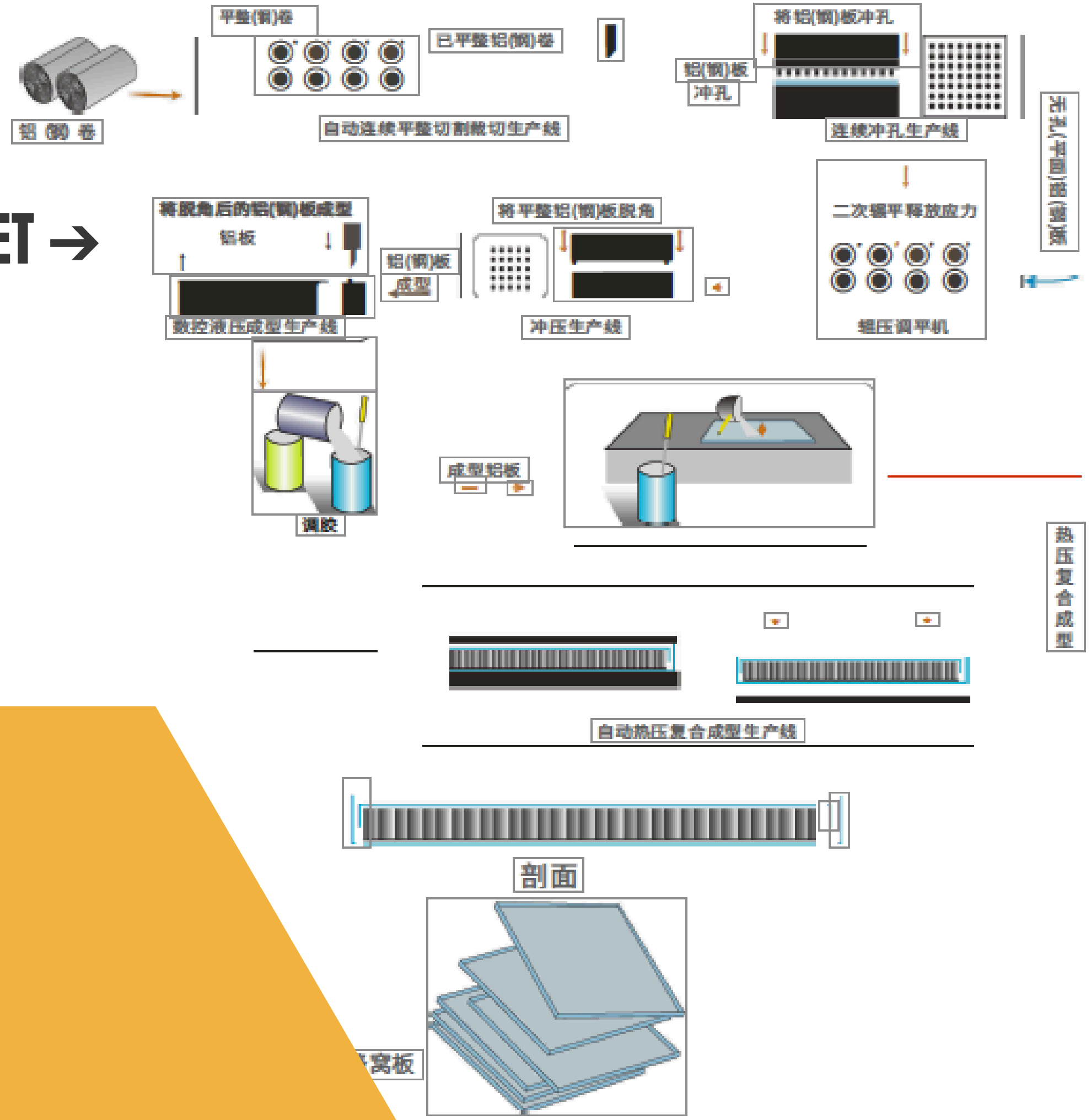
Brief Description of the Product Manufacturing Process:

The CNC automated production line is the dedicated manufacturing equipment used by our company for producing aluminum alloy honeycomb composite panels.

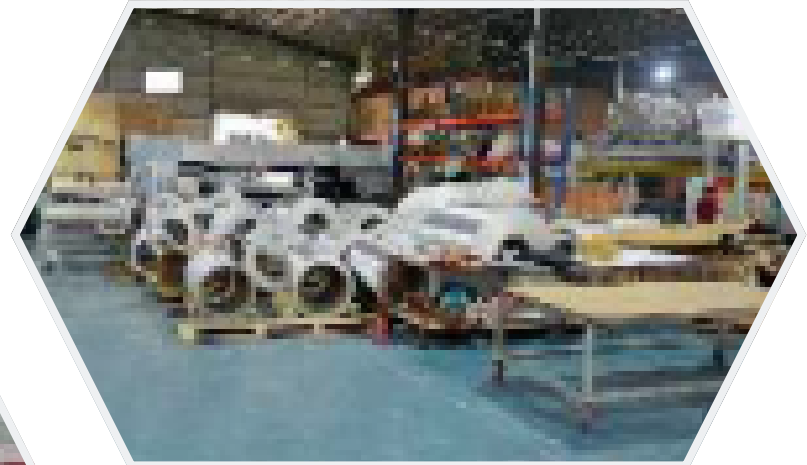
It ensures continuity and consistency in product forming, as well as stable quality during large-scale mass production.



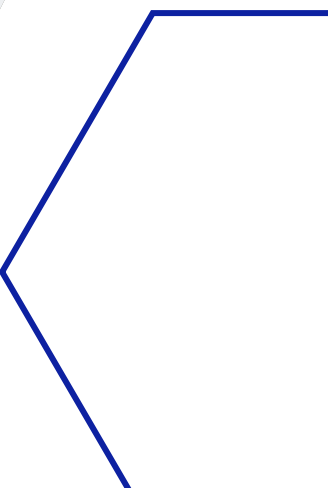
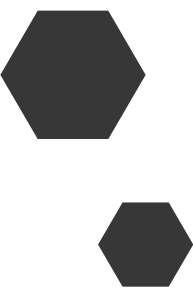
# PRE-COATED ALUMINUM COIL/SHEET → ALUMINUM ALLOY HONEYCOMB COMPOSITE PANEL PROCESSING TECHNOLOGY AND EQUIPMENT



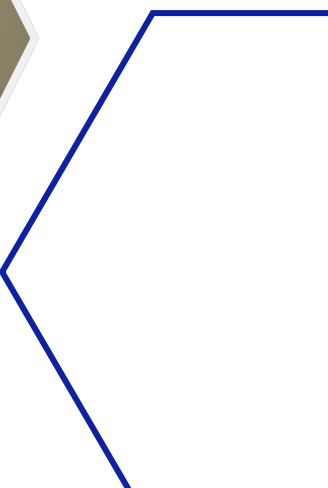
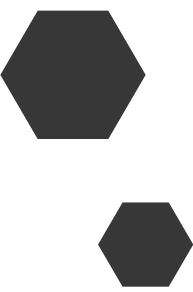
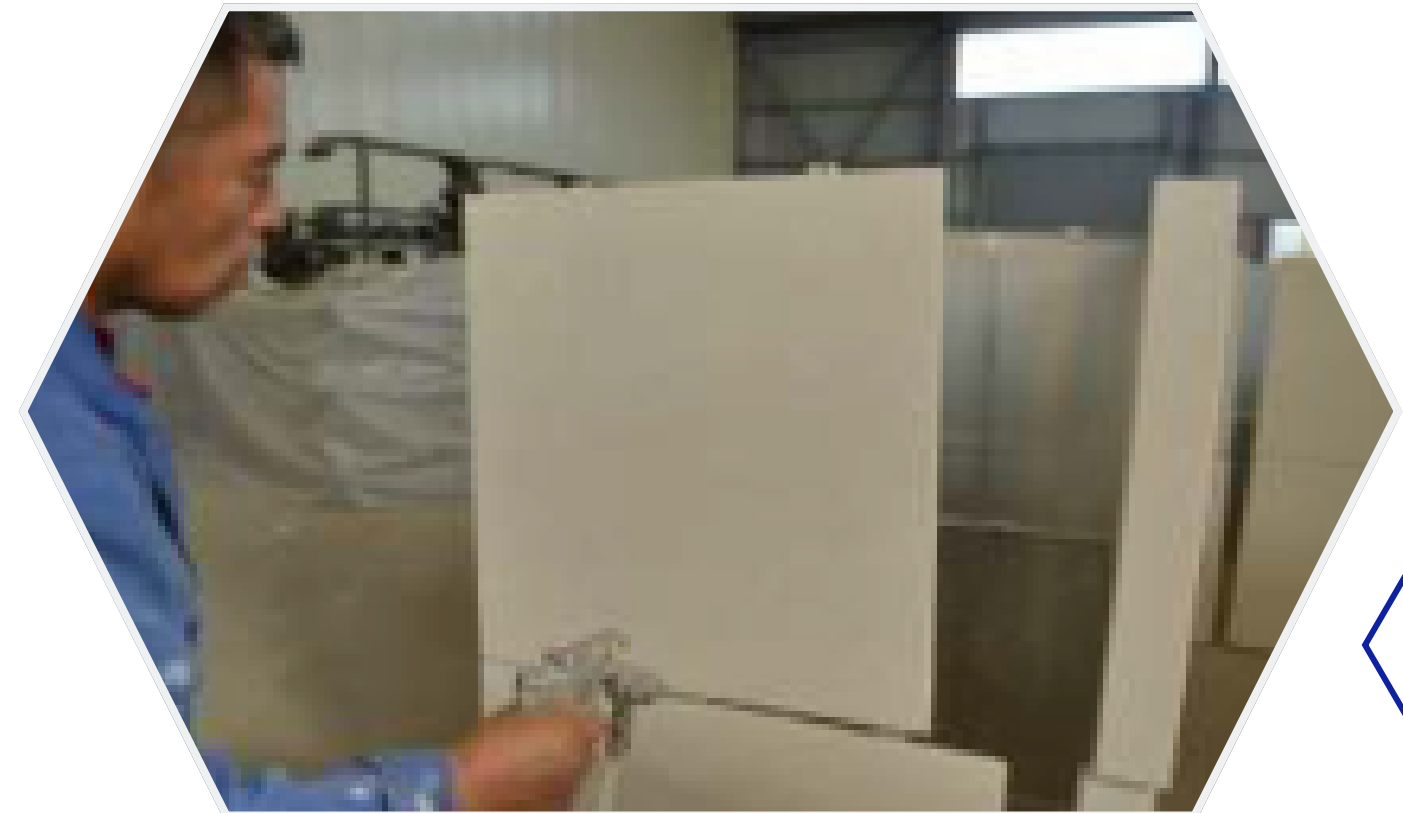
# SHEET METAL PRODUCTION SHOP



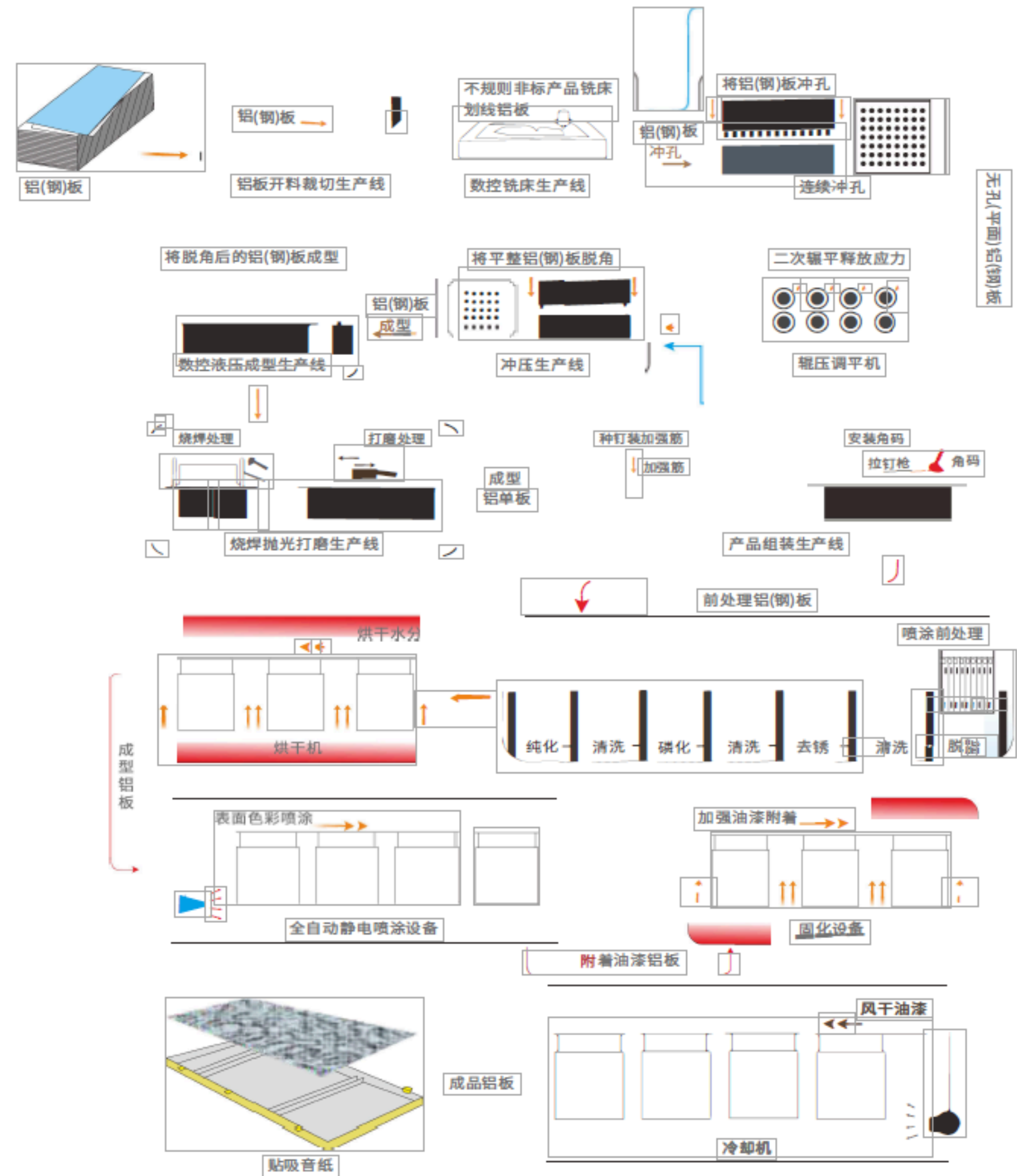
# SPRAYING PRODUCTION WORKSHOP



# WOOD GRAIN/STONE GRAIN PRODUCTION WORKSHOP



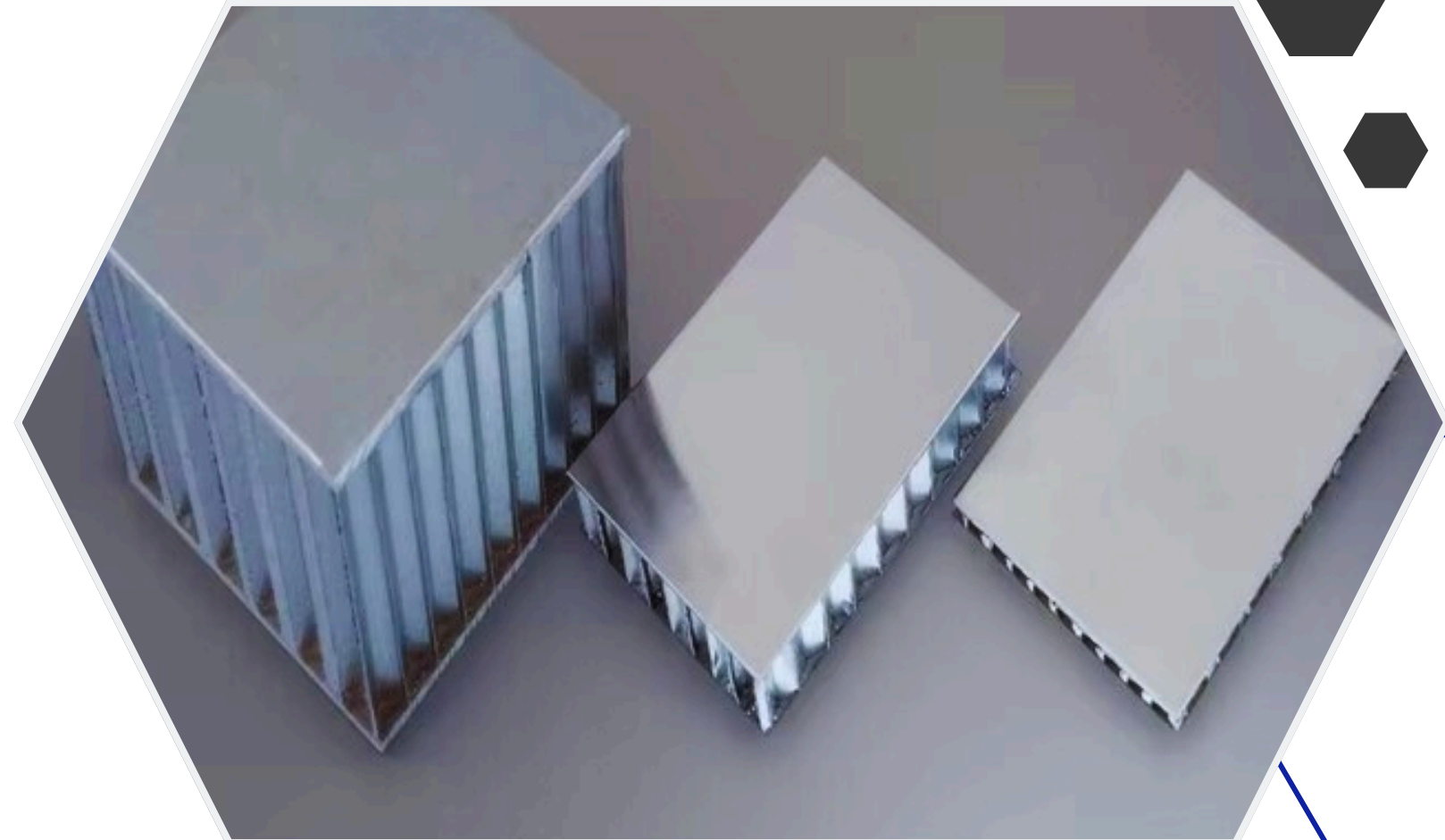
# FABRICATION PROCESSES AND EQUIPMENT → FOR ALUMINUM PANELS AND SHAPED CEILINGS



# HONEYCOMB CORE MATERIAL SERIES

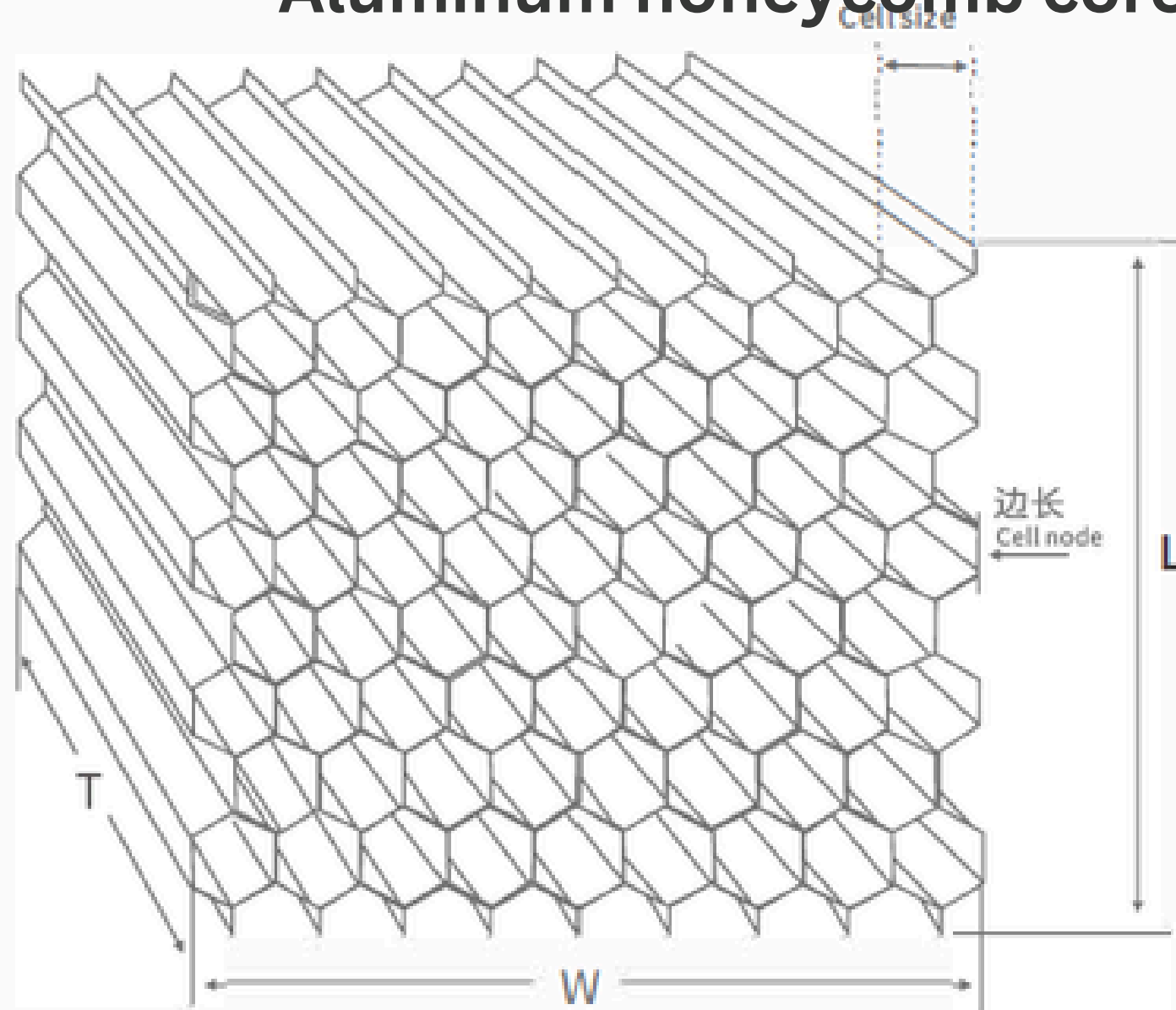
## HONEYCOMB BOARD SERIES

Quality is the prerequisite for the survival of enterprises. Quality is the soul of a brand. We firmly believe that only good quality can make a company last longer.

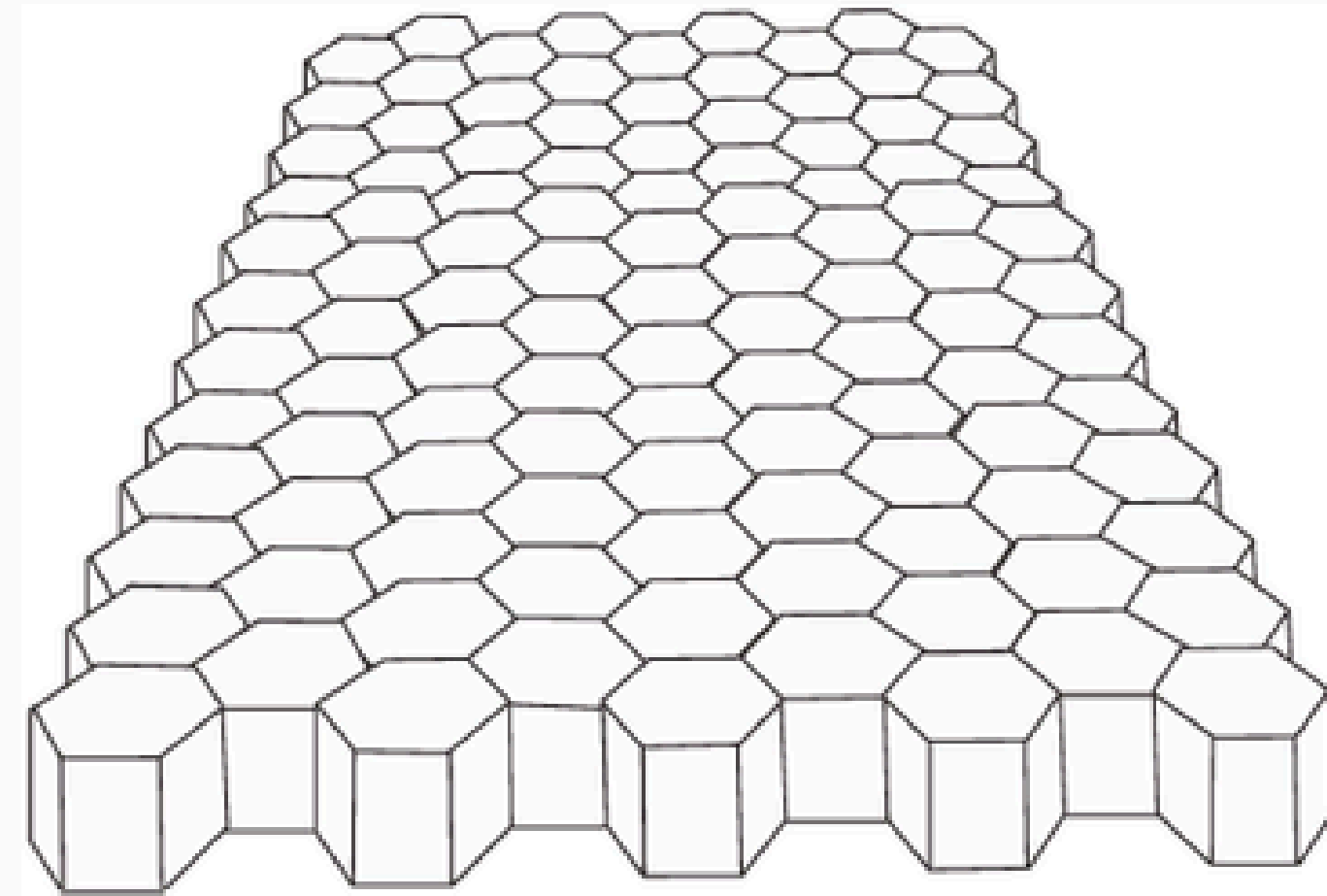


# INTRODUCTION TO CORE MATERIAL SERIES

## Aluminum honeycomb core three-dimensional diagram



L : length  
W : width  
T : thickness



Structural Diagram of Aluminum Honeycomb Panel

Note: Sizes outside of the specification table can be customized. Welcome to inquire!

T-Thickness : 3mm to 300mm

Aluminum Foil : 0.04mm , 0.05mm, 0.06mm, 0.07 mm ,0.08mm Max

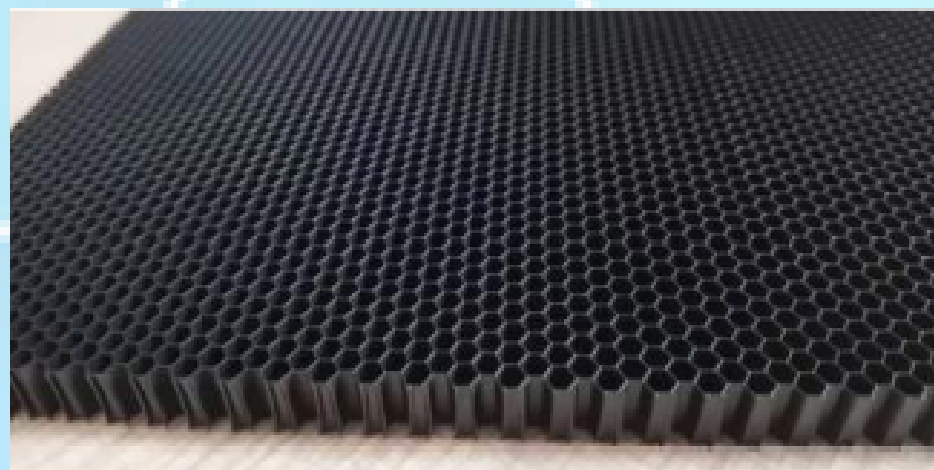
Expanded Size ( WxL ) : 2300x9000mm

# INTRODUCTION TO CORE MATERIAL SERIES

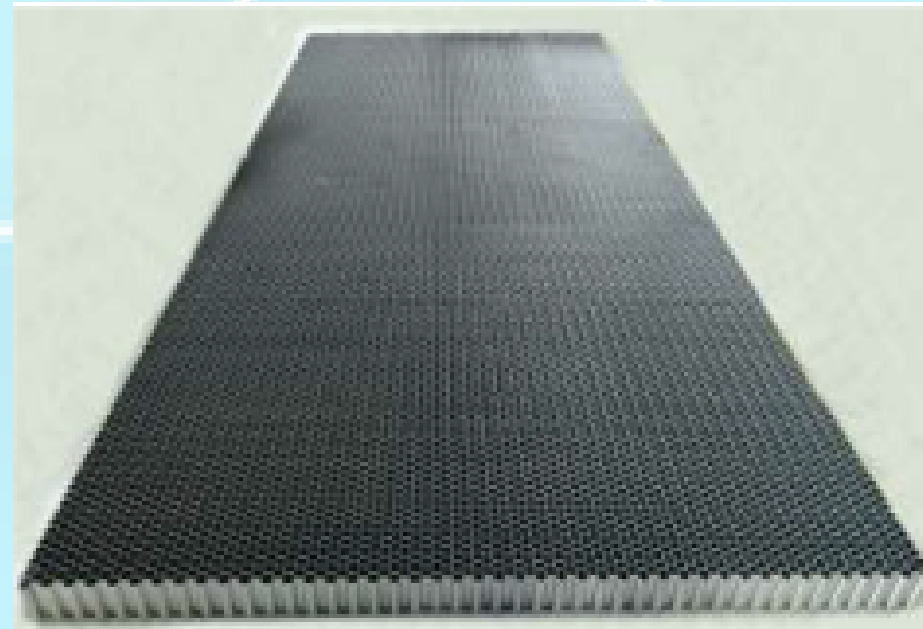
## Aluminium honeycomb Core Specifications

型号 Type	铝箔厚度 (mm) Foil Thickness	尺寸 (mm) size		密度 Density
		边长 cell node	孔径 cell size	
TB4	0.04	4	6.93	41.73
	0.05	4	6.93	52.17
	0.06	4	6.93	62.6
	0.07	4	6.93	73.03
	0.08	4	6.93	83.47
TB5	0.04	5	8.66	33.39
	0.05	5	8.66	41.73
	0.06	5	8.66	50.08
	0.07	5	8.66	58.43
	0.08	5	8.66	66.77
TB6	0.04	6	10.39	27.82
	0.05	6	10.39	34.78
	0.06	6	10.39	41.73
	0.07	6	10.39	48.69
	0.08	6	10.39	55.65

型号 Type	铝箔厚度 (mm) Foil Thickness	尺寸 (mm) size		密度 Density
		边长 cell node	孔径 cell size	
TB7.5	0.04	7.5	13	22.26
	0.05	7.5	13	27.82
	0.06	7.5	13	33.39
	0.07	7.5	13	38.95
	0.08	7.5	13	44.52
TB10	0.04	10	17.32	16.69
	0.05	10	17.32	20.87
	0.06	10	17.32	25.04
	0.07	10	17.32	29.21
	0.08	10	17.32	33.39
TB12	0.05	12	20.78	17.39
	0.06	12	20.78	20.865
	0.07	12	20.78	24.34
	0.08	12	20.78	27.82
TB15	0.05	15	25.98	13.91
	0.06	15	25.98	16.7
	0.07	15	25.98	19.5
	0.08	15	25.98	22.26



ALUMINUM HONEYCOMB CORE



Note: Sizes outside of the specification table can be customized. Welcome to inquire!

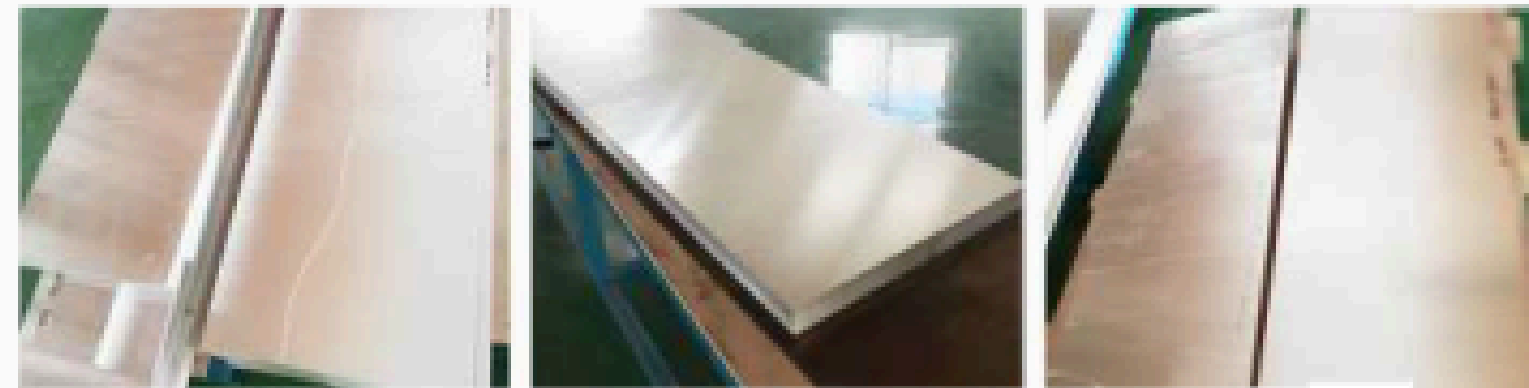
# INTRODUCTION TO CORE MATERIAL SERIES

## ALUMINUM HONEYCOMB CORE & APPLICATION

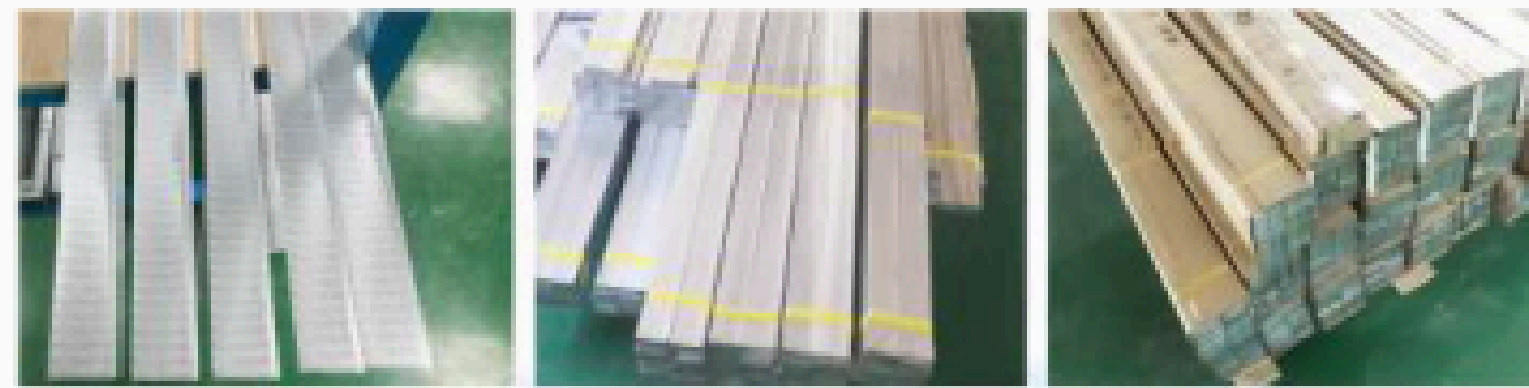
Aluminum Honeycomb louvers



Expanded Aluminum Honeycomb Core for Honeycomb Panels



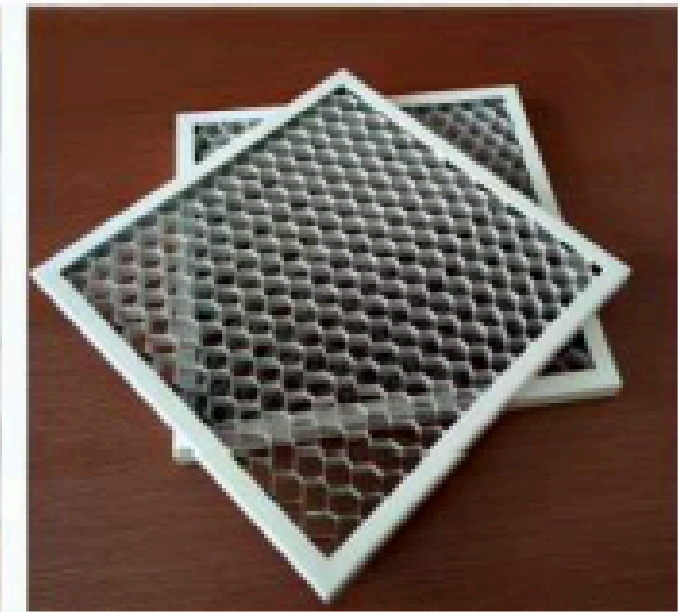
Unexpanded Aluminum Honeycomb Blocks



Unexpanded Aluminum Honeycomb Slices



Honeycomb core lattice for electric heater



Aluminum Honeycomb Ceiling



Black Honeycomb Louver

# INTRODUCTION TO CORE MATERIAL SERIES

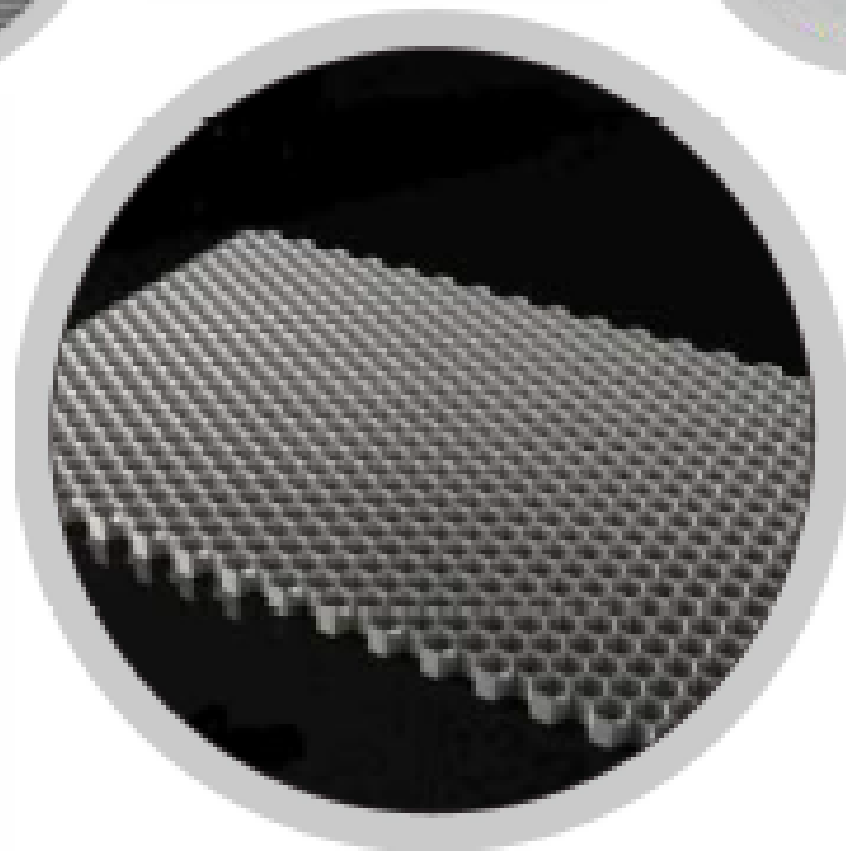
## ALUMINUM HONEYCOMB CORE & APPLICATION



Cold catalyst carrier  
(Air conditioning, refrigerator,  
air purification)



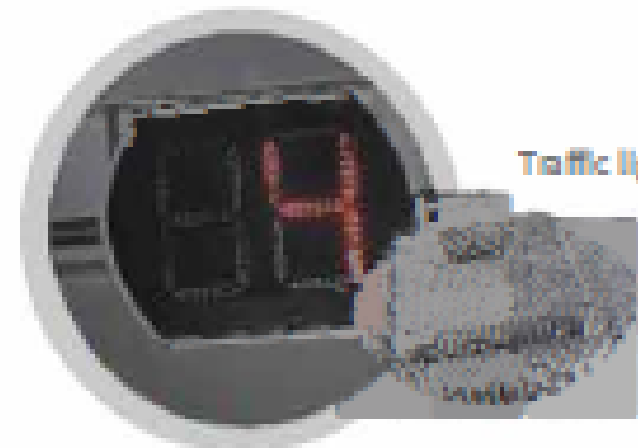
Electric heater grid



Laser cutting machine panel



Lighting grille



Traffic light guidance network

Decoration materials: aluminum honeycomb curtain wall composite panels, Aluminum honeycomb ceiling composite panel, aluminum honeycomb antistatic composite flooring, aluminum honeycomb partition wall composite panels, Aluminum honeycomb composite fire door, aluminum honeycomb composite natural stone, etc;

Household appliances: air-conditioning cold catalyst mesh, refrigerator deodorant block, heater crystal lattice mesh, air freshener air guide grille, etc;

Lighting industry: various exhibition spotlight guide grating, lighting, traffic light spacer, etc;

Audio industry: flat sounding board, long thin speakers, and small and medium traditional speakers, headphone speakers, etc;

Transport industry: railway trains, underground trains and ships'carriages, train doors, partitions and other trim materials;

Furniture industry: home furniture, office furniture, exhibit furniture, etc., with moisture-proof, moth-proof, fire-proof function, its performance of pressure resistance, bending resistance, etc. is greatly superior to the traditional use of materials.

# INTRODUCTION TO CORE MATERIAL SERIES

## STAINLESS STEEL HONEYCOMB CORE

Material: Carbon steel, 304 stainless steel, 316 stainless steel

Hole diameter: 1.6mm, 2.5mm, 3.18mm, 4.0mm, 4.8mm, 6.4mm, 12.0mm

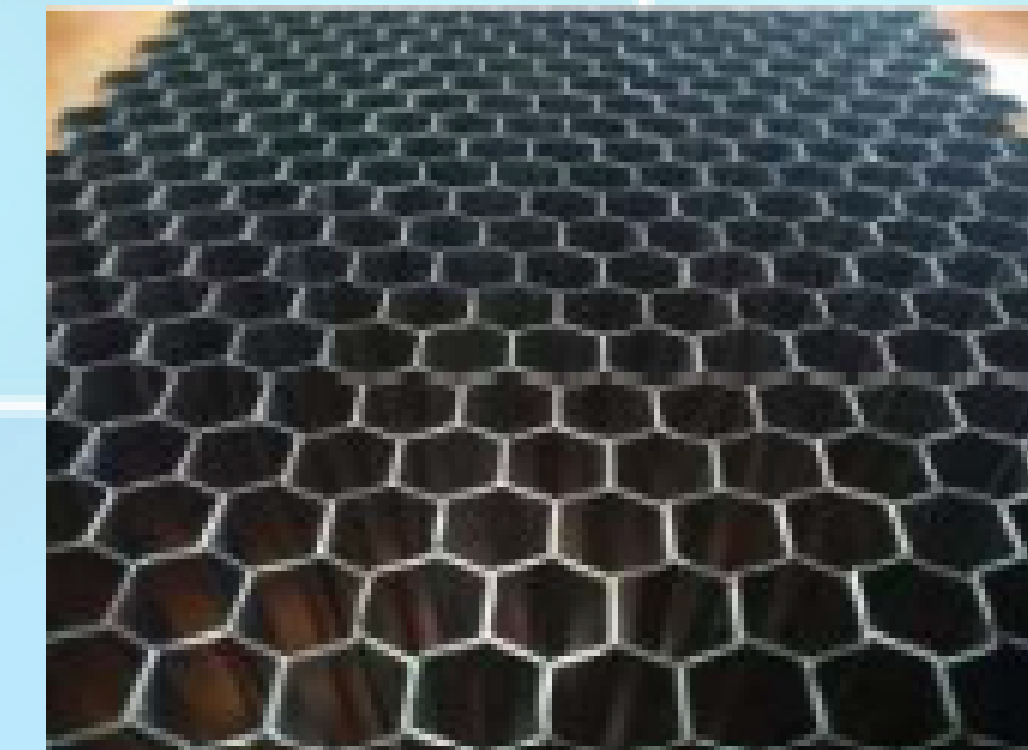
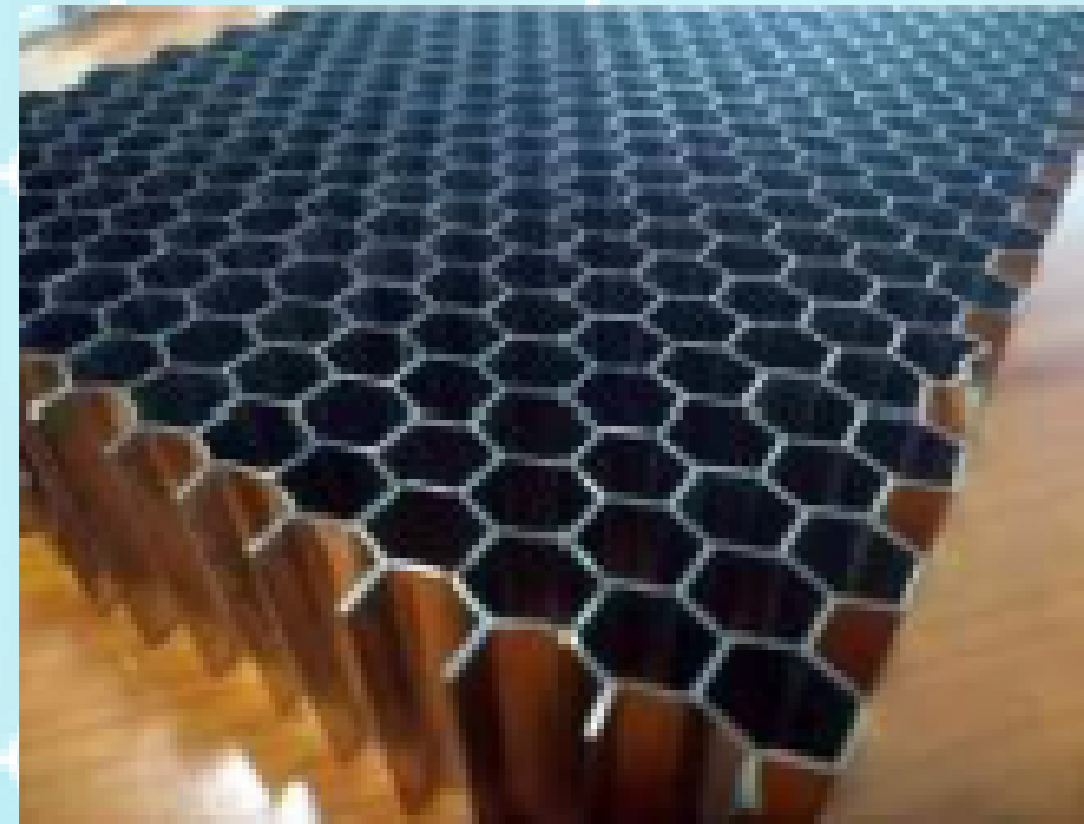
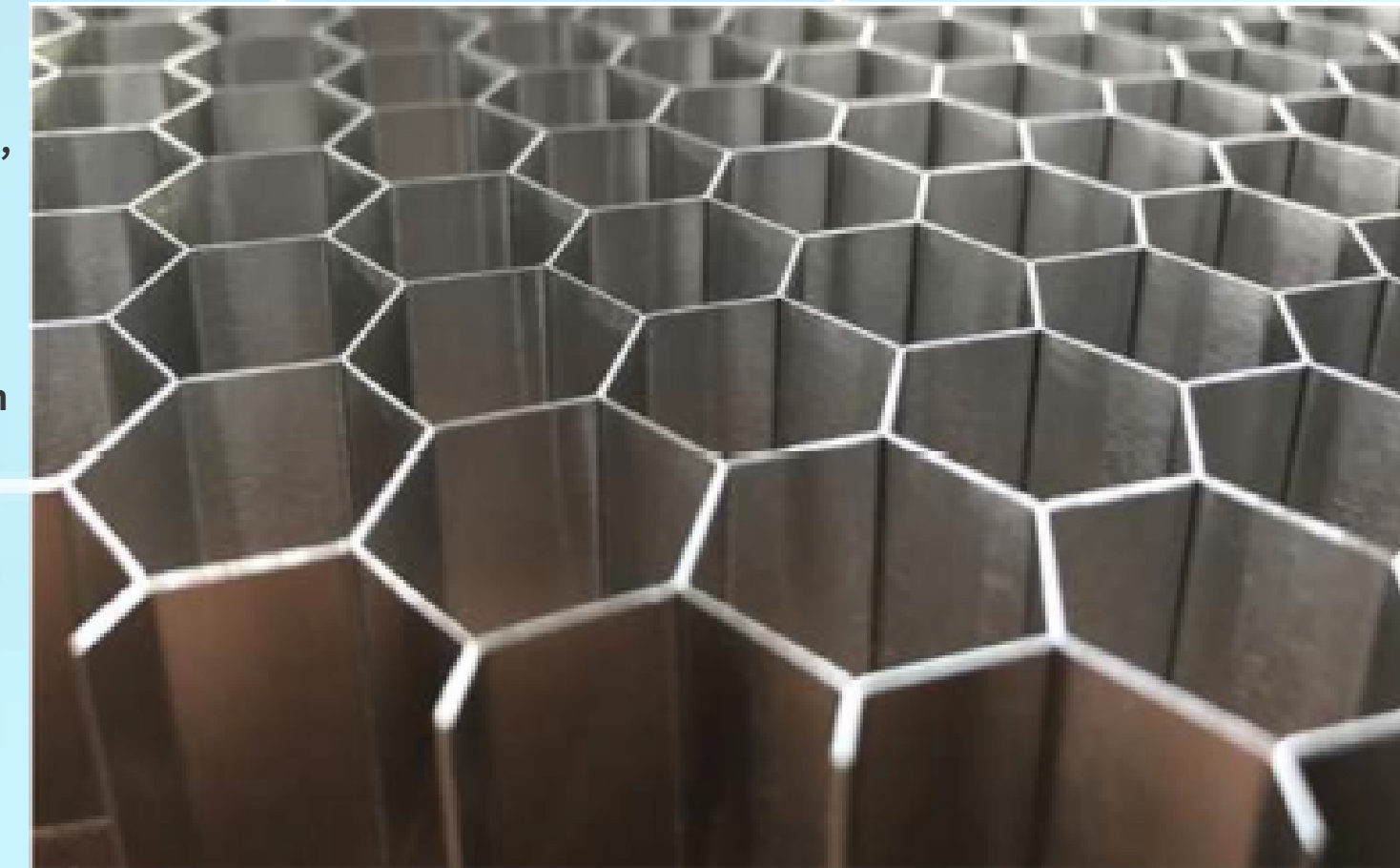
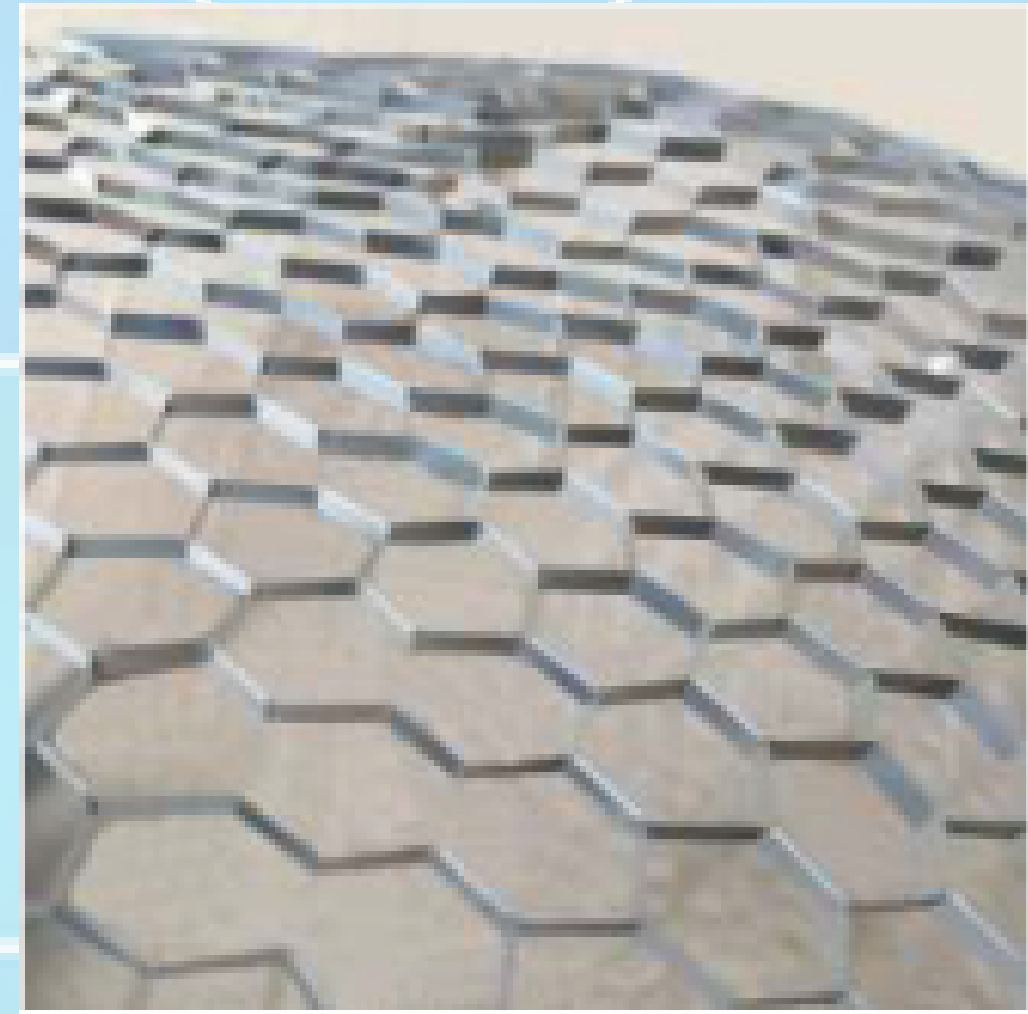
Surface coating: After conductive oxidation, it can be plated with tin, nickel, zinc, chrome, etc

Regular sizes: 60x60, 120x120, 300x300, 600x600mm, 1000x1000mm can be customized according to customer requirements

Thickness: Any thickness between 3.2mm and 300mm

Standard thickness: 6.35mm, 12.7mm, 25.4mm, 30mm, 40mm, 45mm

Wall thickness: Carbon steel, stainless steel 0.05-0.2 mm



- Used in the manufacture of ventilation waveguide windows, playing the role of electromagnetic radiation shielding, ventilation, heat dissipation;
- Used in power plant cooling towers, playing the role of cooling filtration;
- for electromechanical platforms, to support the role of anti-pressure weight reduction;
- for high-grade automobile exhaust pipe, play a three-way catalytic role for fireplace, play a role of high-temperature resistance to even wind
- for high-power laser cutting machine platforms, to resist high temperatures
- for high-grade textile equipment, to even out the wind (especially for equipment with high wind speed);
- Widely used in all kinds of high temperature, shielding, ventilation, air-leveling and other related products;

# HONEYCOMB CORE SANDWICH PANEL SERIES

## HONEYCOMB CORE SANDWICH PANEL SERIES

We insist honest to the clients  
and ensure quality of our products so  
as to build stable relationship with them.  
so our design is guide by the service for customers,  
Humanity-oriented and enthusiastic.  
We believe that we will got honor by servicing the customers.

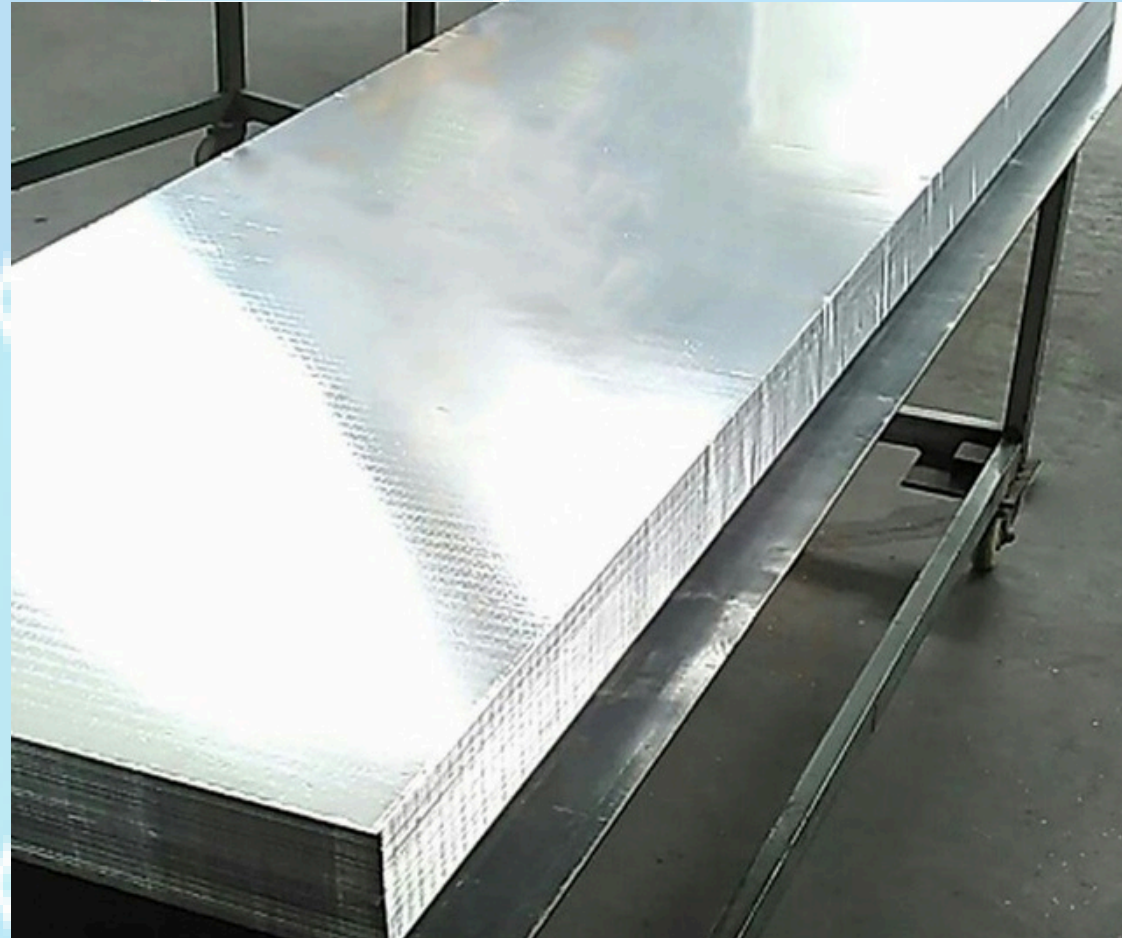


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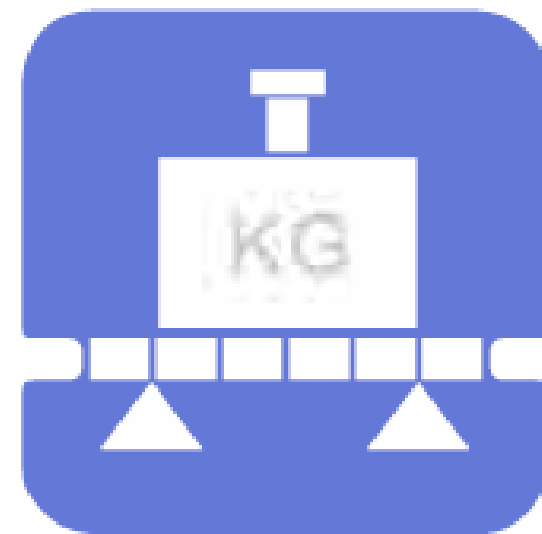


# HONEYCOMB CORE SANDWICH PANEL SERIES

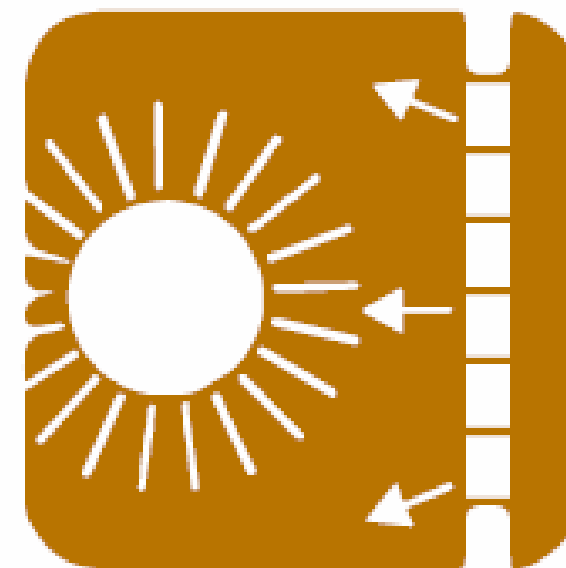
## Aluminium honeycomb panel description



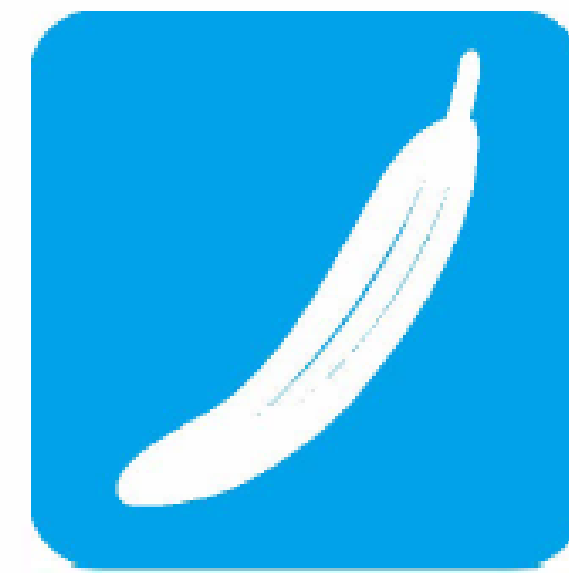
Aluminum honeycomb panel surface using panels and base plates are aluminum alloy sheet, the middle is in line with the U.S. aviation standards of aluminum honeycomb, the company introduced from France to the production of sandwich panels of the Sanmingye special composite process of cold pressing and hot pressing technology, specializing in the production of such products, so that the product is more significant excellent characteristics, widely used in architectural curtain walls and indoor and outdoor decorations, and more due to the company has a professional and comprehensive production process of the guarantee. Therefore, it is possible to produce the products with different laminating processes according to customers' requirements and actual conditions.



High strength



Heat insulation



Light weight



Sound insulation

# HONEYCOMB CORE SANDWICH PANEL SERIES

Technical performance indicators aluminum honeycomb panel -1

厚度 : Thickness	20mm	25mm
正面铝板 Facing Aluminum Skin		1.00mm
背面铝板 Backing Aluminum Skin		1.00mm
重量 Weight (kg/m <sup>2</sup> )	7.4	7.8
复合板及面板的力学性能 : Mechanics function of complex planking and surface planking		
惯性矩 Inertia rectangle I (cm <sup>4</sup> /h)	19.85	31.67
载面模量 Measurement of cutting W (cm <sup>3</sup> /h)	19	24
复合板刚度 Handnes of complex planking E. I (KNcm <sup>2</sup> /m)	139000	2217000
面板铝型材 Aluminum profile surface planking	AA5754A (ALMg3)	
弹性模量 Changgable measurgmnt (N/mm <sup>2</sup> )	70000	
面板抗拉强度 Pull prafecting strength of surfaee planking(N/mm <sup>2</sup> )	Rm ≥ 220	
0.2%屈服应力 0.2% Power of Bending(N/mm <sup>2</sup> )	Rp0.2 ≥ 130	
延伸率 (EN485-2:1194) Extanding rate(EN485-2:1194)	A50 ≥ 8	
铝材线性热图胀 Hot expanding of aluminum materials	2.4mm/m 100℃温差时 When the lempenture discrpancy is 100℃	

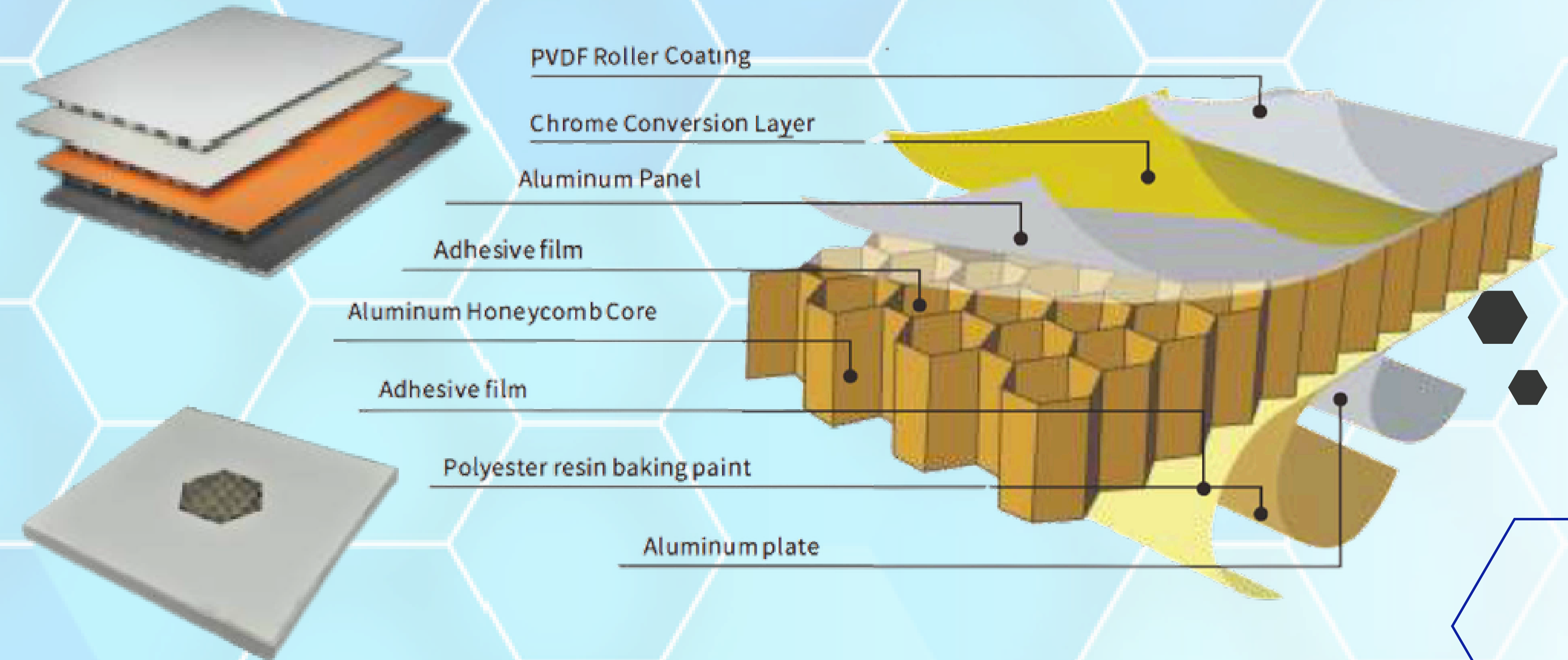
# HONEYCOMB CORE SANDWICH PANEL SERIES

Technical performance indicators aluminum honeycomb panel -2

表面饰层: Surface decoration layer	P V D F 喷涂烤漆 PVDF Spray and bake paint		
光泽度(初始值) Luminosity(original Data)	30-40%		
铅笔硬度 Hardness of pencil	HB-F		
蜂窝芯 Pith Of Honeycomb			
蜂窝尺寸 Size of honeycomb	1/4" (6.3mm)		
铝材容量 Aluminum Honeycomb Density	大约80kg/m <sup>3</sup> It is about 80kg/m <sup>3</sup>		
抗压强度 Strength of Pressure-resistant (MIL-STD-401)	4N/mm <sup>2</sup>		
声学性能 Function of Acoustics			
吸声系数 Data of sound sucking As	0.05		
隔声系数 Indicator of sound separating 按照According to ISO717-RW	23	25	
热工性能: Function of Heating			
导热系数 Data of heating guiding $\lambda^*(w/m^2 k)$	2.25	2.7	
热阻值 Dau of heating preventing R(1/m) (m <sup>2</sup> k/w)	0.0089	0.0093	
传热系数 Data of heating passing U(k) (w/m <sup>2</sup> k)	5.59	5.575	

# HONEYCOMB CORE SANDWICH PANEL SERIES

Aluminum Honeycomb Panel Construction diagram



# HONEYCOMB CORE SANDWICH PANEL SERIES

## ALUMINIUM HONEYCOMB PANEL FEATURES

### **LIGHT WEIGHT, HIGH STRENGTH, HIGH STIFFNESS, STABLE STRUCTURE, GOOD WIND PRESSURE RESISTANCE**

Aluminium honeycomb panels have been widely used in the exterior wall decoration of buildings due to its light weight, high strength, high stiffness and many other advantages. The weight of honeycomb sandwich panel with the same stiffness is only 1/5 of aluminium plate and 1/10 of steel plate, and the weight of aluminium honeycomb panel with the total thickness of 15mm, 1.0mm panel and 0.8mm backing plate is only 6kg/m<sup>2</sup>.

The interconnected honeycomb core is like countless I-beams distributed and fixed in the whole panel, which is not easy to produce shear, so that the panel is more stable, more resistant to bending and compression, and its wind pressure is greatly superior to that of Aluminium Composite Panel (ACP) and Aluminium Veneer Panel (AVP), and it is not easy to deform, and has the characteristics of good straightness, so that even though the size of honeycomb panels is very large, the panels can still achieve a very high straightness, and the aluminium honeycomb panels can achieve a greater strength and deflection by its smaller weight. At the same time, the excellent rigidity to weight ratio, can be smaller materials to obtain a larger force, is incomparable to other materials, is the current construction industry preferred lightweight materials.

### **OUTSTANDING SOUND INSULATION, HEAT INSULATION, FIREPROOF AND SHOCKPROOF FUNCTIONS**

Due to the honeycomb composite panels within the honeycomb core separated into numerous closed chambers, preventing the air flow, so that the heat and sound waves are greatly impeded, therefore, play a heat insulation, heat preservation, sound insulation effect, the sound source of 100 ~ 3200HZ noise reduction of up to 20 ~ 30dB, the coefficient of thermal conductivity of 0.104 ~ 0.130W/M.K, it is an ideal energy-saving materials. In case of heavy rain, the noise is especially high when the rain hits the aluminium veneer or aluminium composite panel board, and the honeycomb panel avoids this situation.

### **STRAIGHT APPEARANCE, A VARIETY OF COLOURS, ELEGANT AND POLISHED, DURABLE**

The honeycomb panels of different specifications and sizes have extremely high flatness and have the advantage of not being easily deformed. The aluminium honeycomb panels produced by our company generally use fluorocarbon roller coated aluminium panels as the panels, the most important point of the fluorocarbon roller coated aluminium panels is that they adopt the continuous roller coating process, and the aluminium panels are coated with the paint in one time. It ensures that its products have no colour difference, good coating levelling and reliable quality. At the same time, it can keep the colour of the external wall of the building bright for a long time. After a long period of sun and rain or industrial exhaust pollution, it is obvious that the roller coated panels are cleaner and brighter, and have good adhesion and weather resistance, which is the mainstream material recognised by the world's construction people.

### **STRONG DECORATIVE, EASY AND FAST INSTALLATION**

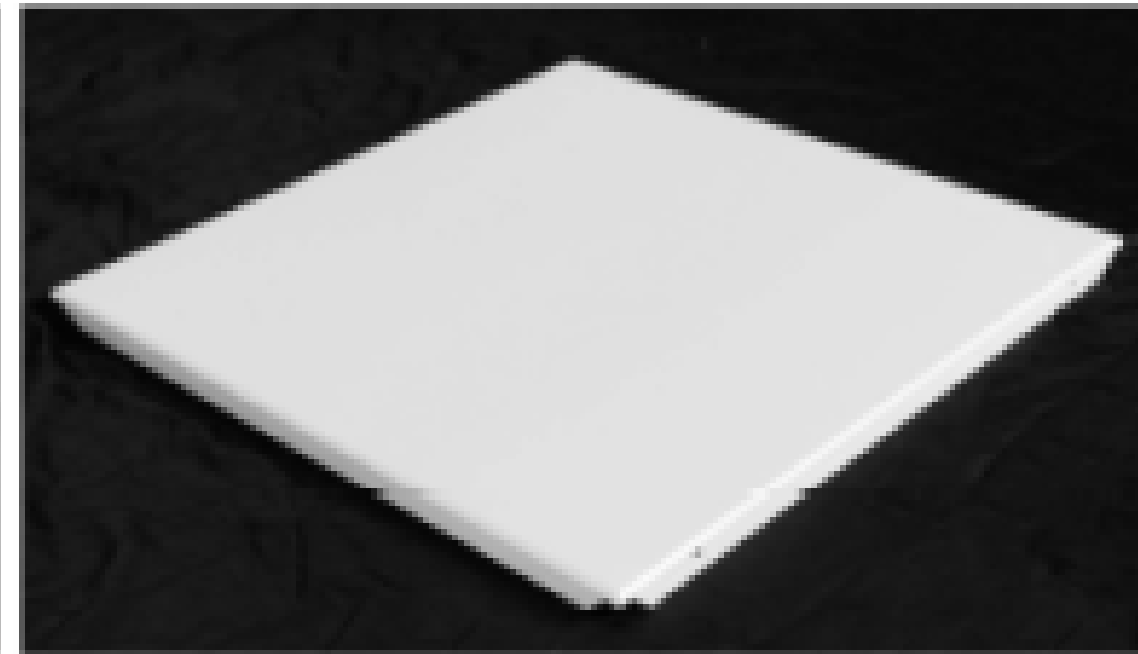
The double-sided panel of honeycomb panel can be made of different materials according to different requirements, such as aluminium plate, stainless steel plate, colour steel plate, natural stone. Curtain wall aluminium honeycomb panel is designed according to the size of the site, processed in the factory, bending around, and then composite molding, and then punching lugs, lugs and panels are connected into a whole, so that the molded honeycomb panels are more solid. Aluminium honeycomb panel can be made into flat plate, curved plate and "L" type plate, all factory production, reliable quality, easy and fast installation.

# HONEYCOMB CORE SANDWICH PANEL SERIES

## Aluminum honeycomb panel

According to shape, aluminum honeycomb panels can be divided into:

1. Flat aluminum honeycomb panel: with a flat surface, commonly used in decorative fields such as building curtain walls and ceilings.



2. Punched sound-absorbing aluminum honeycomb panel: Punching processing is carried out on the basis of flat aluminum honeycomb panel, which has functions such as ventilation, breathability, and sound-absorbing.



# HONEYCOMB CORE SANDWICH PANEL SERIES

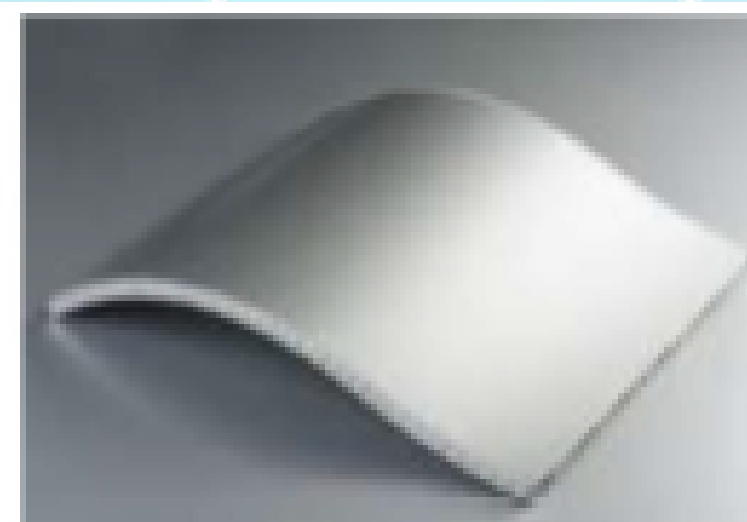
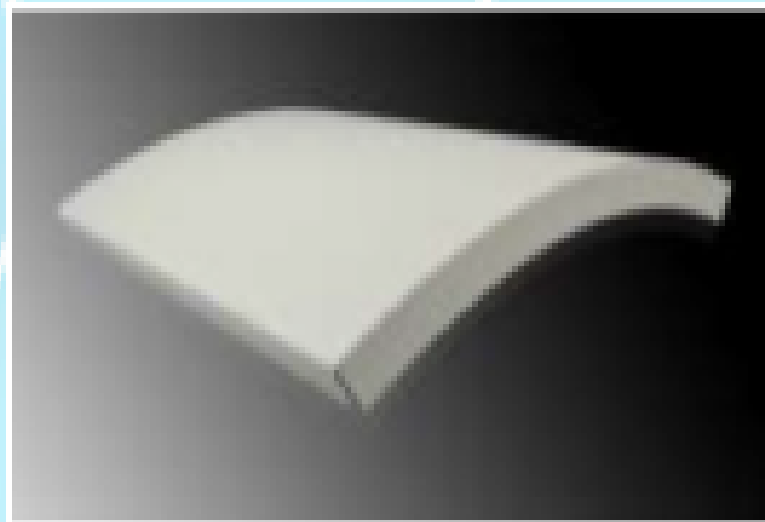
Aluminum honeycomb panel

According to shape, aluminum honeycomb panels can be divided into:

3. Irregular honeycomb panel



4. Curved honeycomb panel



# HONEYCOMB CORE SANDWICH PANEL SERIES

Aluminum honeycomb panel

## ALUMINIUM HONEYCOMB PANEL SPECIFICATION PARAMETERS

Width : 1000mm,1220mm,1250mm,1500mm,1575mm,2000mm,2200mm, special width as per customer request

Length :2440mm,special length according to customer's demand

Total thickness panel: 4mm,6mm,8mm,10mm,12mm,15mm,20mm,25mm,40mm,max 500mm Available Skin

Thickness :0.5mm,0.6mm,0.7mm,0.8mm,0.9mm,1.0mm,1.5mm,max 3mm

Coating : Kynar 500 PVDF,PE(Polyester)

Both side skin thickness material :A1100 or AA3003 or 5005 or 5052 or 6063.

Surface treatment:

high-gloss, matte, mirror, anodic oxidation, wood grain, stone grain, PVC film, solid wood veneer, HPL, etc.

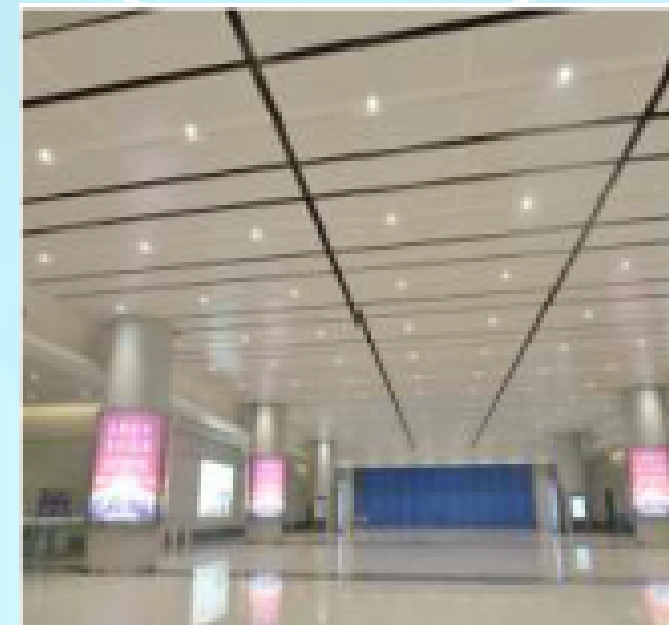
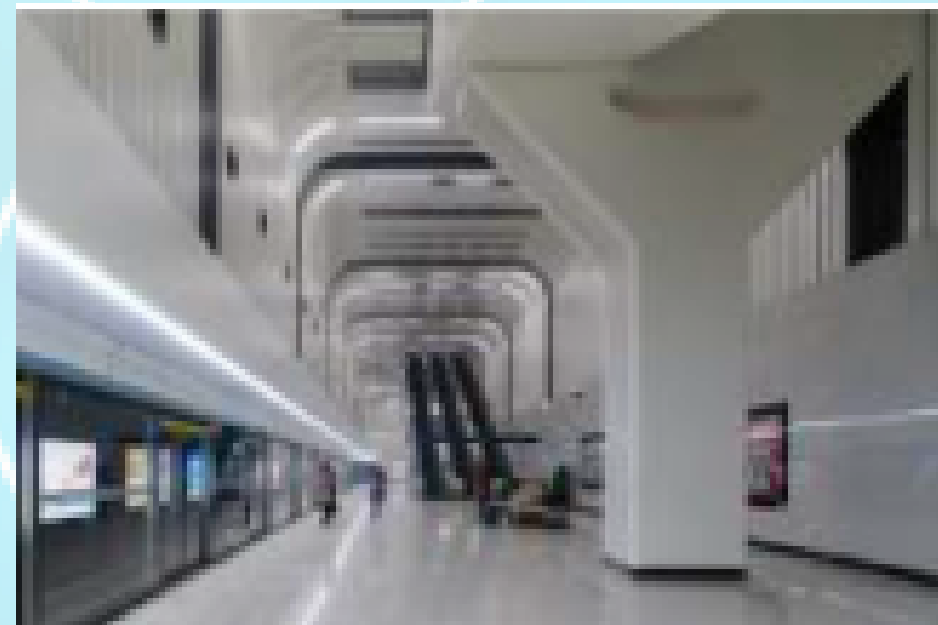
## HONEYCOMB CORE

Core material thickness:

2mm-500mm

Core material:

AA3003 or AA5005 aluminum honeycomb core



# HONEYCOMB CORE SANDWICH PANEL SERIES

Aluminum honeycomb panel

## Aluminium honeycomb panel applications

Aluminium honeycomb core panels have a wide range of applications, mainly used in curtain wall decoration, interior decoration, door cabinets, office desk, partition walls, ceiling, lift decoration, underground, luxury ships and caravans, furniture cabinets and other fields.

### Architectural curtain wall

The shape and size can be flexibly adjusted to meet the special requirements of various buildings. Can be laminated into curved or complex curved surfaces and easily installed on almost any type of keel.

### Ceiling

Aluminium honeycomb core panels are beautiful in appearance and flexible in design. It is the ideal material for the construction of high-grade office areas, luxury hotels and coffee shops.

### Lift Decoration

Not only has excellent fireproof, heat dissipation, anti-seismic performance, and light weight, can greatly reduce the load of the lift, is currently the most ideal material for public lifts and freight lifts.

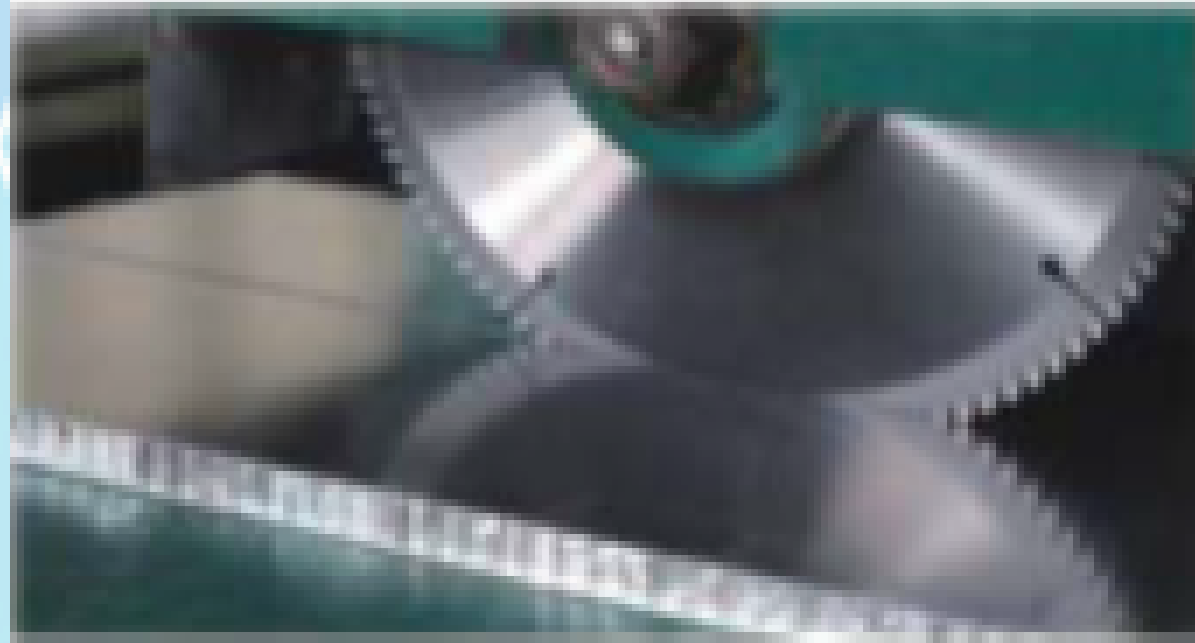
### Furniture Cabinet

For the modern furniture industry with strict environmental requirements, using honeycomb panels to do furniture processing materials, is a good choice of materials for the new century, its completely non-toxic green quality, so that furniture manufacturers in the processing of furniture, less unnecessary environmental procedures

# HONEYCOMB CORE SANDWICH PANEL SERIES

Aluminum honeycomb panel

Processing Technology - 1



Cutting



Notching



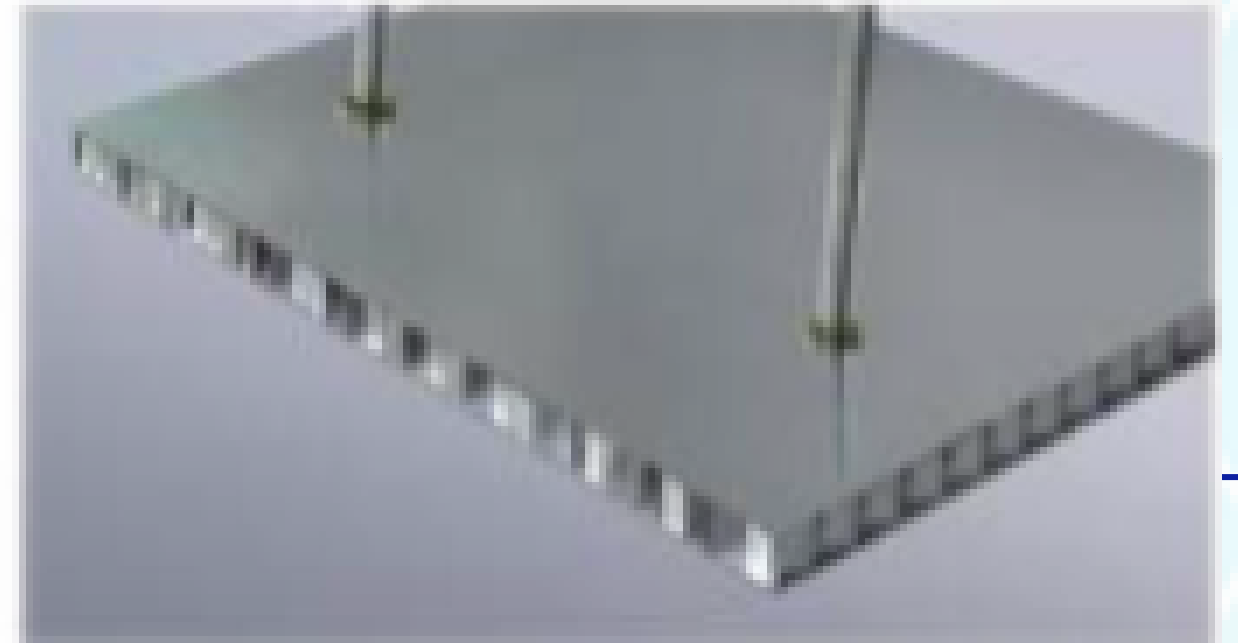
Joining And Fixing



Bending



Edge Compress Forming



Hanging

# HONEYCOMB CORE SANDWICH PANEL SERIES

Aluminum honeycomb panel

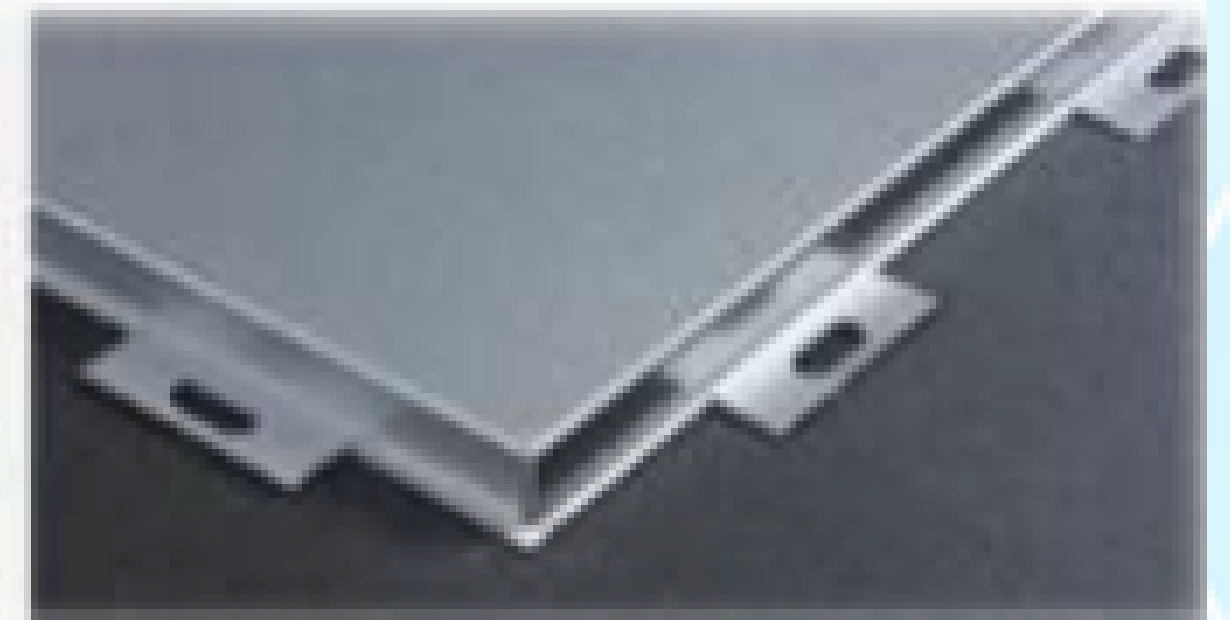
Processing Technology - 2



Two Sides Bending



Three Sides Bending



Four Sides Bending With Angle Bracket



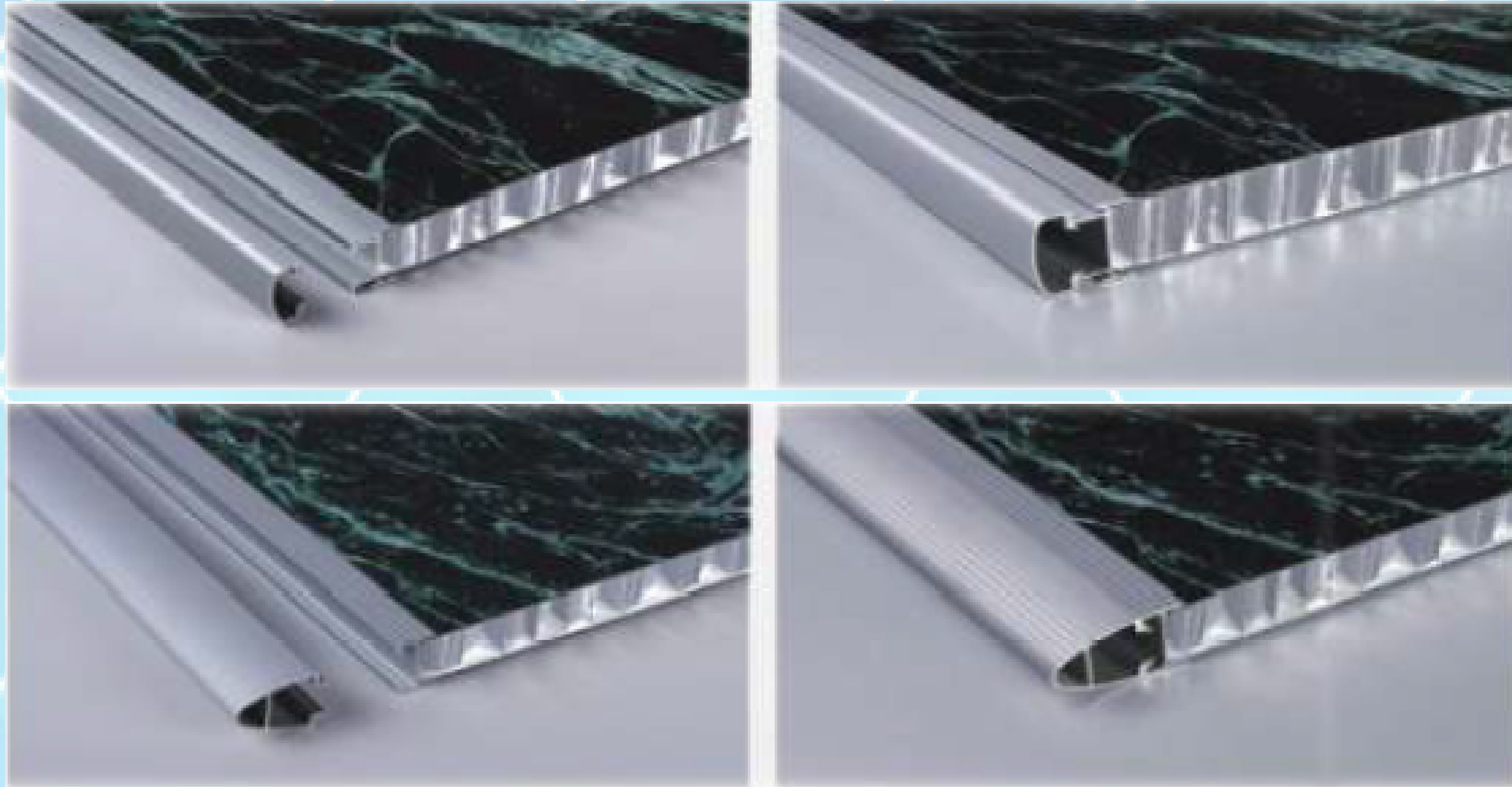
Edges Treatment



# HONEYCOMB CORE SANDWICH PANEL SERIES

Aluminum honeycomb panel

Processing Technology - 3



Edges Cover

# HONEYCOMB CORE SANDWICH PANEL SERIES

Aluminum honeycomb panel

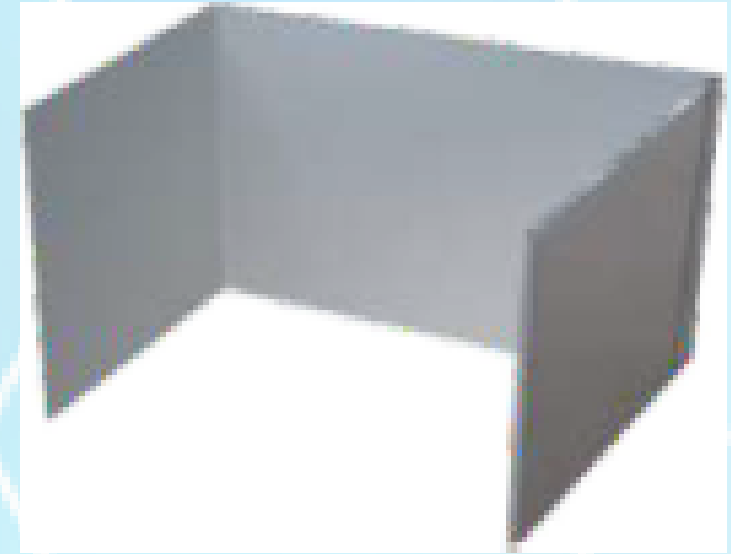
Processing Technology - 4



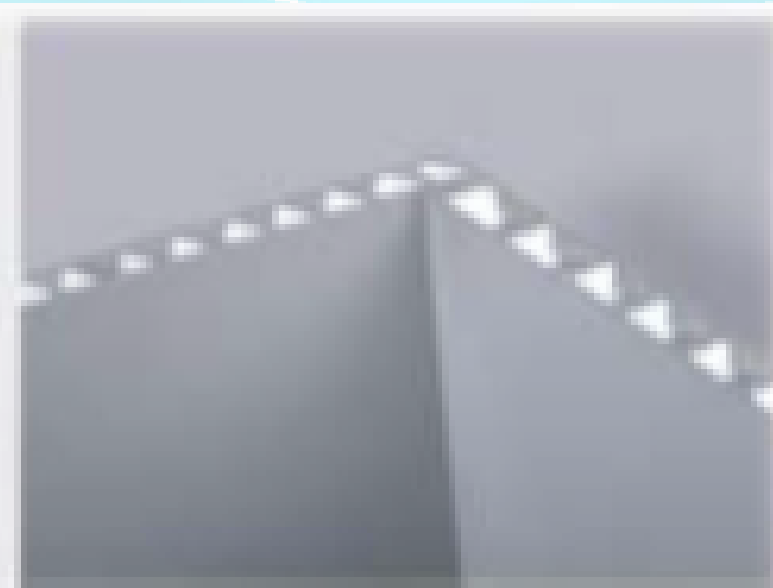
Right Angle Column



Arc Shape



Inner Bending



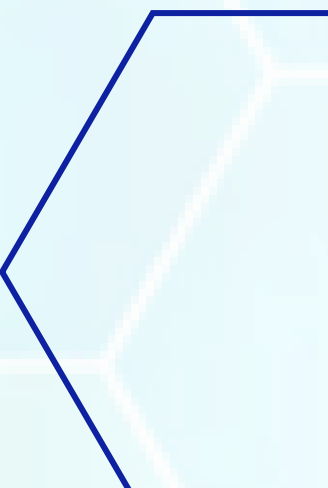
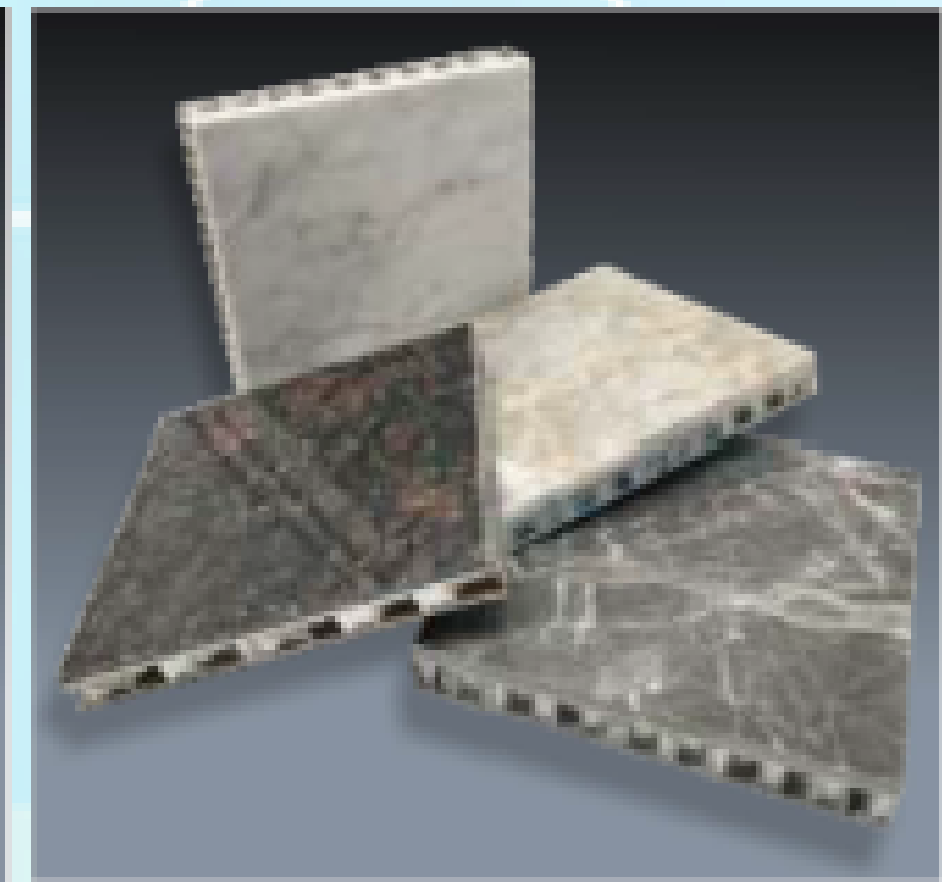
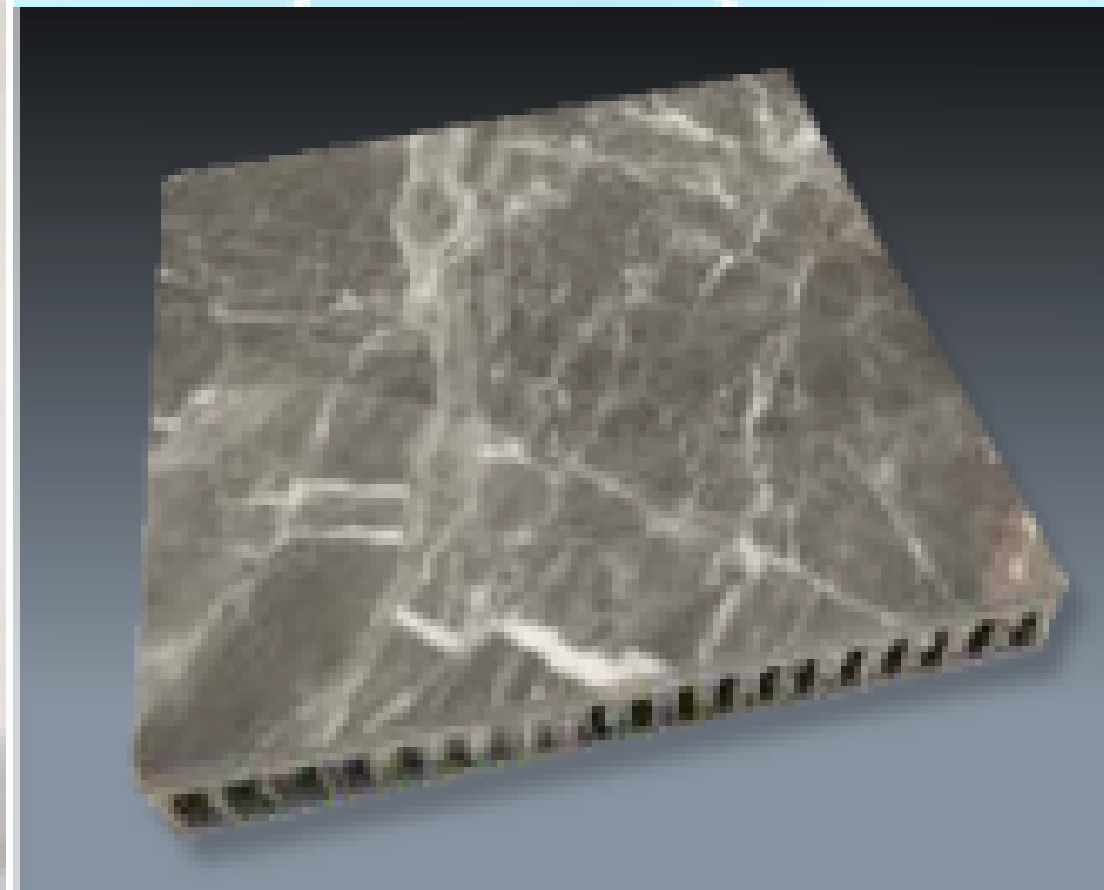
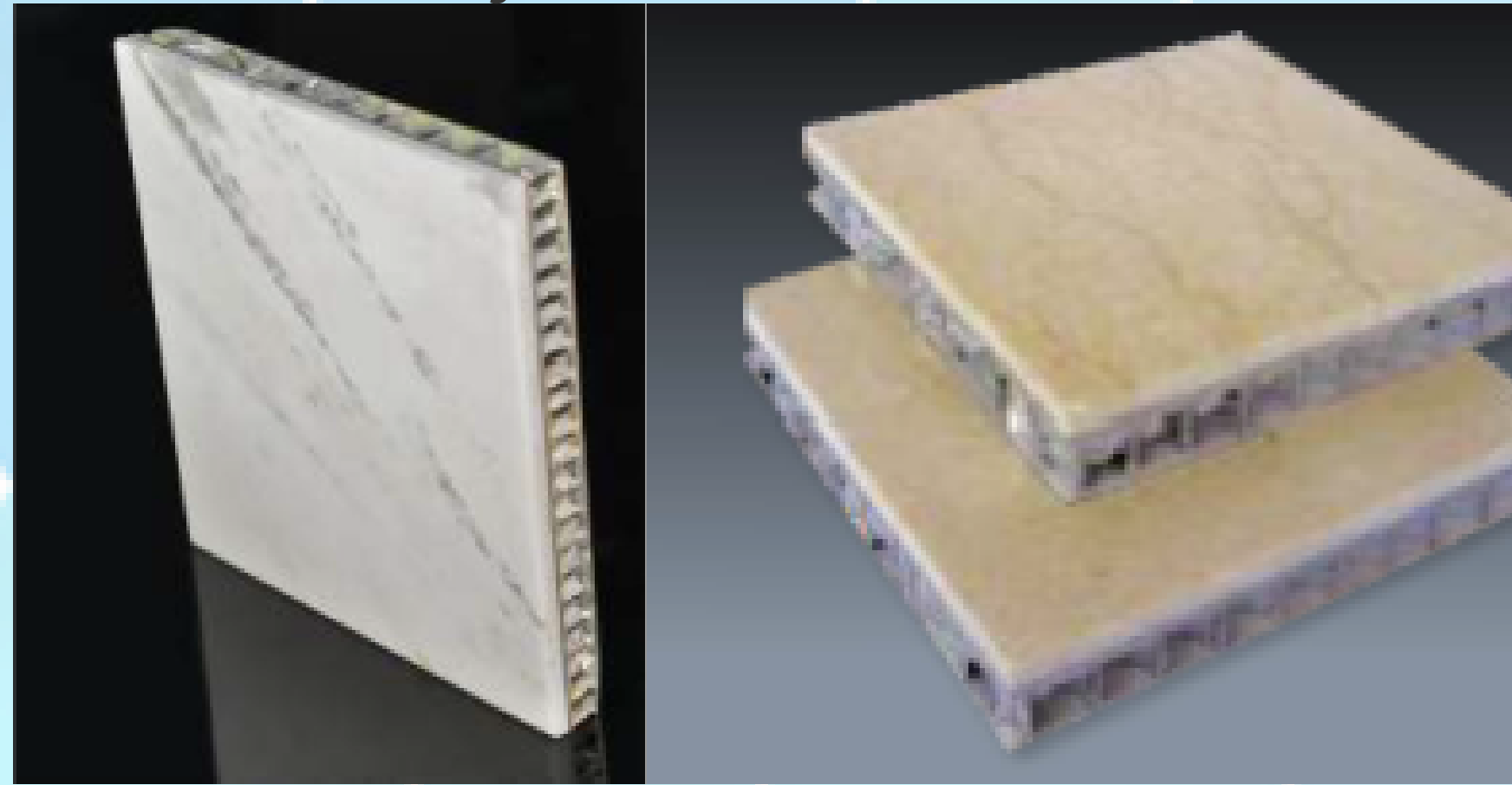
Rivet



Embedded Parts Of Internal Wall Decoration

# HONEYCOMB CORE SANDWICH PANEL SERIES

Stone honeycomb board



# HONEYCOMB CORE SANDWICH PANEL SERIES

## Stone honeycomb board

### Description of stone honeycomb panels

It is a new type of building materials, with better impact resistance than ordinary natural stone, only 8 to 11 kg per square metre, is 1/7 of the weight of ordinary natural stone, compressive strength is 3 to 5 times, completely overcoming the defects of the natural stone weight, fragile, etc., to provide a new generation of building materials with better performance and a wider range of applications.

Stone aluminum honeycomb composite panels are generally made of 3-5mm stone and 10-25mm aluminum honeycomb panels, which are bonded and composite by special adhesives. For the exterior curtain wall, it is recommended that the stone thickness of the stone aluminum honeycomb panel is 4-5mm, and the thickness of the aluminum honeycomb panel is not less than 25mm; For the interior wall, it is recommended that the stone thickness of the stone aluminum honeycomb panel is 3-4mm, and the thickness of the aluminum honeycomb panel is 15mm; For the interior ceiling, it is recommended that the stone thickness of the stone aluminum honeycomb panel is 3-4mm, and the thickness of the aluminum honeycomb panel is 15-20mm; For the floor panel, it is recommended that the stone thickness of the stone aluminum honeycomb panel is 5-5mm, and the thickness of the aluminum honeycomb panel is 10-15mm.

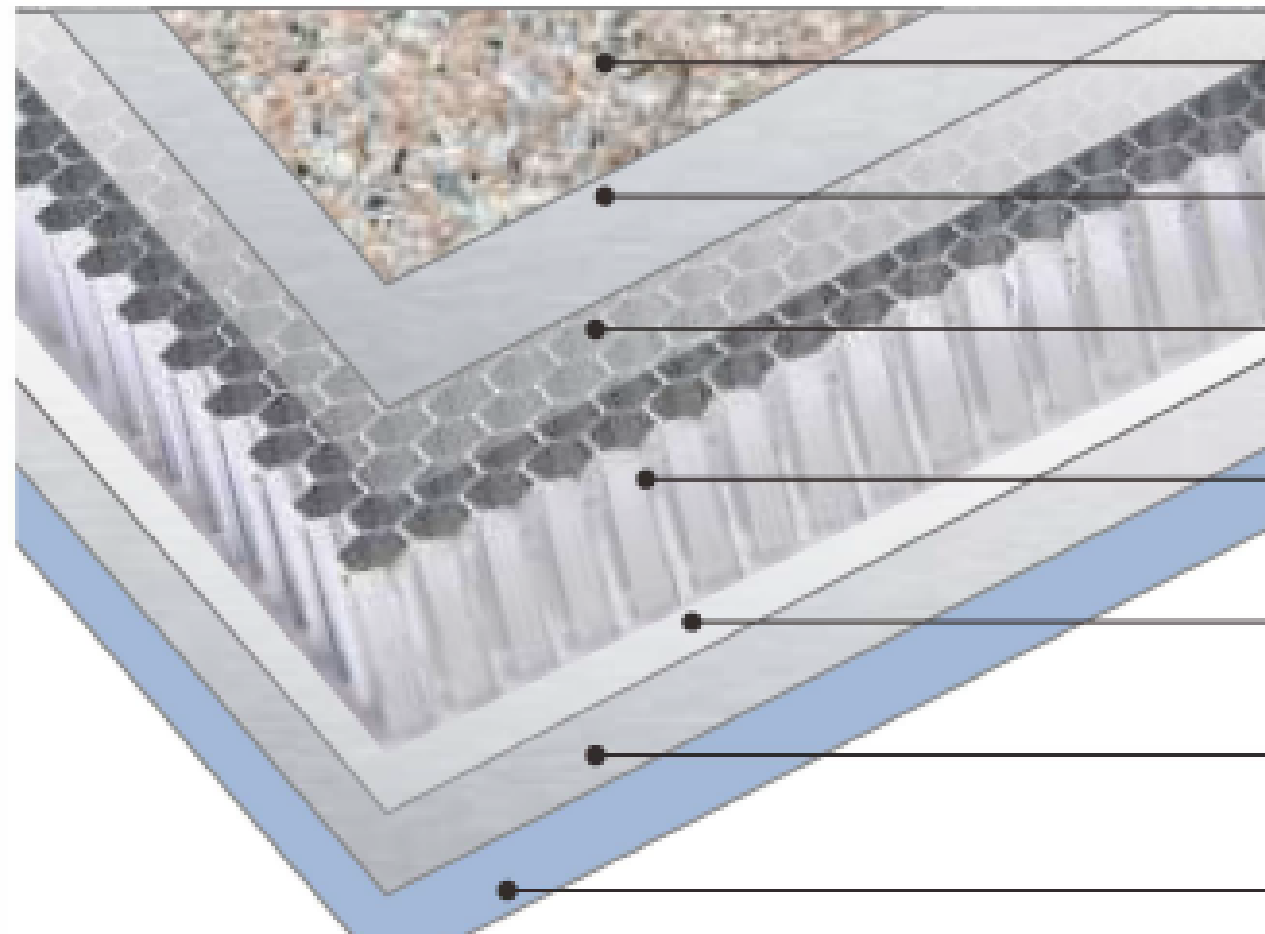
### Technical parameters of stone honeycomb panel

平压强度 Flat compressive strength	厚度偏差 thickness variation	平面度偏 差 flatness deviation	弯曲强度 bending strength	拉伸剪切强度 Tensile shear strength	隔音量 sound insulation
1.0Mpa	±0.5mm	±1.0mm	>17.9Mpa	0.67Mpa	32dB

# HONEYCOMB CORE SANDWICH PANEL SERIES

Stone honeycomb board

Stone honeycomb panel structure



Natural stone facing

aluminum sheet

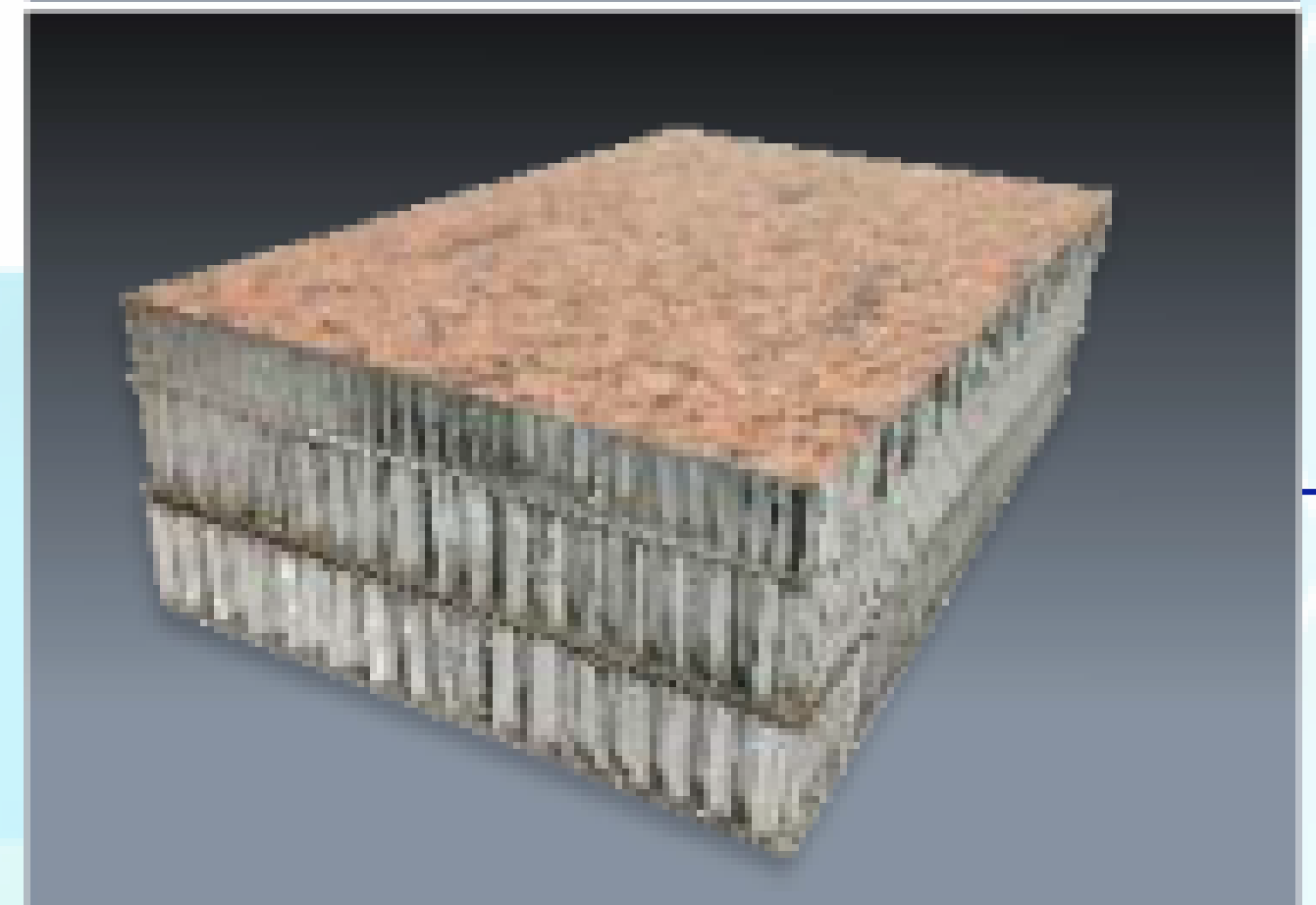
special high viscosity glue

Aluminum honeycomb core

special high viscosity glue

aluminum sheet

PE coating cover the face panel



## Product features

1. Light weight: the common characteristics of honeycomb materials, weight reduction can greatly reduce the weight load of the building, reduce labor intensity, save construction costs. More than 80% lighter than traditional stone, the thinnest marble composite panel can be only 5mm thick (composite with aluminum honeycomb panel). Commonly used composite tiles or granite, also only about 12mm thick, saving transportation costs, it is a satisfactory choice when there is a load limit for the building.
2. High strength: high mechanical performance index values such as material plane tensile resistance, interlayer shear resistance, bending stiffness, deformation resistance, impact resistance, and the impact strength of 20mm stone honeycomb board is about 10 times that of 30mm thick stone. After the composite of marble, tile, granite and aluminum honeycomb panel, its bending resistance, bending resistance and shear resistance are significantly improved, and the impact strength is more than ten times larger than that of traditional stone with a thickness of 3.0cm, thus greatly reducing the damage rate during transportation, installation and use.
3. Easy installation: Due to the above characteristics, in the installation process, regardless of weight, fragility (strength, etc.) or color separation splicing, the installation efficiency and safety are greatly improved, and the installation cost is also reduced.
4. Good safety performance: after the bending deformation of strong impact or overload, the surface of the stone is only partially cracked, and there will be no radiation cracks, nor will it break or fall off as a whole, causing casualties.
5. Sound insulation and moisture-proof: The composite board made of aluminum honeycomb board and marble, because of its hollow aluminum bee core made of equilateral hexagon, has the performance of sound insulation, moisture-proof, heat insulation and cold-proof. Therefore, these characteristics far exceed the performance characteristics that stone does not have.
6. Energy saving, consumption reduction: Stone aluminum honeycomb composite panel because of its sound insulation, moisture-proof and thermal insulation performance, therefore, after indoor and outdoor installation, it can greatly reduce the consumption of electric energy and heat energy. The thermal conductivity of ordinary solid stone is (3.5~1.3)w/mok, while the thermal conductivity of stone aluminum honeycomb panel is (0.104~0.130)w/mok, and its value is in the range of thermal insulation materials. It can be seen that stone aluminum honeycomb panel is a kind of heat insulation and energy-saving material, and also has the performance of sound insulation and noise reduction.

# HONEYCOMB CORE SANDWICH PANEL SERIES

## Stone honeycomb board

### Executive standard for stone honeycomb panels

项目 Project		技术要求 The technical requirements	
		W类	N类
耐污染性	Contamination resistance	无明显残余污染痕迹 No significant residual traces of contamination	
抗落球冲击	Anti falling ball impact	无开胶、脱落破坏	No glue, failure
抗柔重物冲击	Soft heavy body impact resistance	无开胶、脱落破坏	No glue, failure
平压强度	Flat compression strength	≥0.8	≥0.6
平压弹性模量	Flat compression elastic modulus	≥30	≥25
平面剪切强度	Plane shear strength	≥0.5	≥0.4
平面剪切弹性模量	Plane shear modulus of elasticity	≥4.0	≥3.0
滚筒剥离强度/(N·mm/mm) Drum peel strength /(N·mm/mm)	平均值 The average	≥50	≥40
	最小值 Minimum value	≥40	≥30
平拉粘接强度/Mpa Flatwise tensile bond strength	平均值 The average	≥1.0	≥0.6
	最小值 Minimum value	≥0.6	≥0.4
弯曲强度(标准值)/Mpa The bending strength (standard) /Mpa	花岗岩 Granite	≥8.0	—
	砂岩、大理石、石灰石 Sandstone, marble, limestone	≥4.0	
弯曲强度/(N·mm) Bending strength /(N·m <sup>2</sup> )	铝蜂窝板 Aluminum honeycomb panels	≥1.0x10	≥1.0x10
	钢蜂窝板 Steel honeycomb panel	≥1.0x10	
	玻纤蜂窝板 Fiberglass honeycomb panel	≥1.5x10	
剪切刚度 The shear stiffness		≥1.0x10	≥1.0x10
耐热水性 Hot water resistance	外观 Appearance	≥15	—
	平拉粘接强度平均值下降率/% Flatwise tensile adhesive strength average rate of descent /%	无异常 No abnormal	
耐温差性 The temperature difference of	外观 Appearance	无异常 No abnormal	—
	弯曲强度下降率/%	≥20	
抗冻性 Frost resistance	外观 Appearance	无异常 No abnormal	—
	平拉粘接强度平均值下降率/% Flatwise tensile adhesive strength average rate of descent /%	≤15	
	外观 Appearance	无异常 No abnormal	

注:弯曲试验用的试样宽度为100mm。 Note: the specimen width bending test for 100mm.



### Parameters stone aluminum honeycomb panel:

Face material: natural stone veneer  
 Bottom sheet: fiber glass or aluminum sheet  
 Honeycomb structure: 3003 aluminum foil  
 Adhesives: modified astronautic grade epoxy resin  
 Stone series: marble, granite, sandstone, limestone, ceramics, etc.  
 Panel and base plate thickness: panel 3-5-8-9-10mm natural stone, base plate is 7mm or 16mm.

Aluminium honeycomb panel  
 Total thickness :10mm-15mm-18mm-20mm-25mm  
 Standard size: 600x6000mm, 800mmx800mm, 1000x1000mm  
 Max size: Marble1500\*3000mm, Granite200\*2400mm. Special size & shape: can be customized.



# HONEYCOMB CORE SANDWICH PANEL SERIES

## Stone honeycomb board - Application

Building interior and exterior wall and ceiling decoration, hotel facade, pillar decoration, corridor, balcony decoration, elevator decoration, billboard, gymnasium, conference room, airport, station, subway station, cinema, hospital, school, car 4S shop Opera house, villa, resort, private club, waiting room, restaurant, coffee shop, canteen, office, major public places and so



## Except for these, we also have the below series:

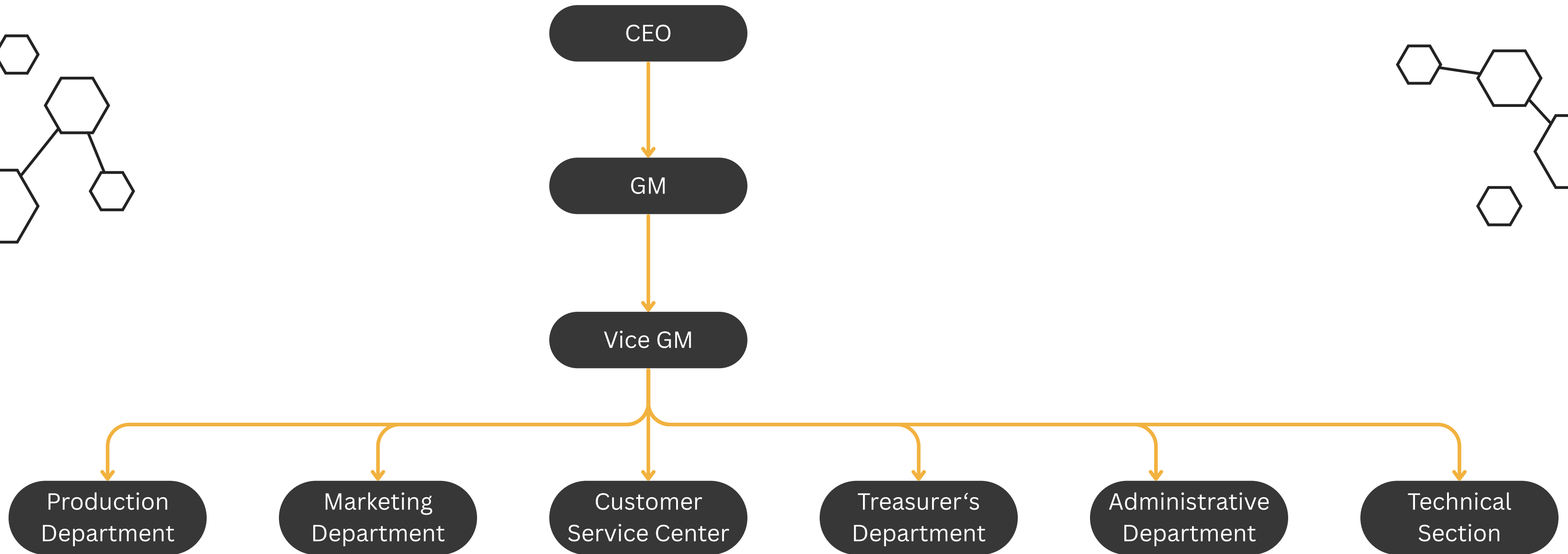
- Wood/Stone grain honeycomb panels
- Wood/Bamboo veneer honeycomb panels
- Stainless steel mirror honeycomb panel
- Aluminum Mirror Honeycomb Panel
- Titanium honeycomb panel
- Stainless steel honeycomb panel
- Anodised Aluminum honeycomb panels

- HPL Honeycomb panel
- Plywood (Wood) Honeycomb Core Panels
- Anti-slip Aluminum honeycomb panels
- Fiberglass Honeycomb Panels
- PET/PVC/PP film Aluminum Honeycomb Panels
- PP Honeycomb Panels
- Aluminum Corrugated Board Series

# ENGINEERING SECTION



# ORGANIZATION STRUCTURE



# PRODUCT FEATURE - CORE



lightweight



fireproof



waterproof



non-deformable



mildew-proof



environmentally friendly



long service life



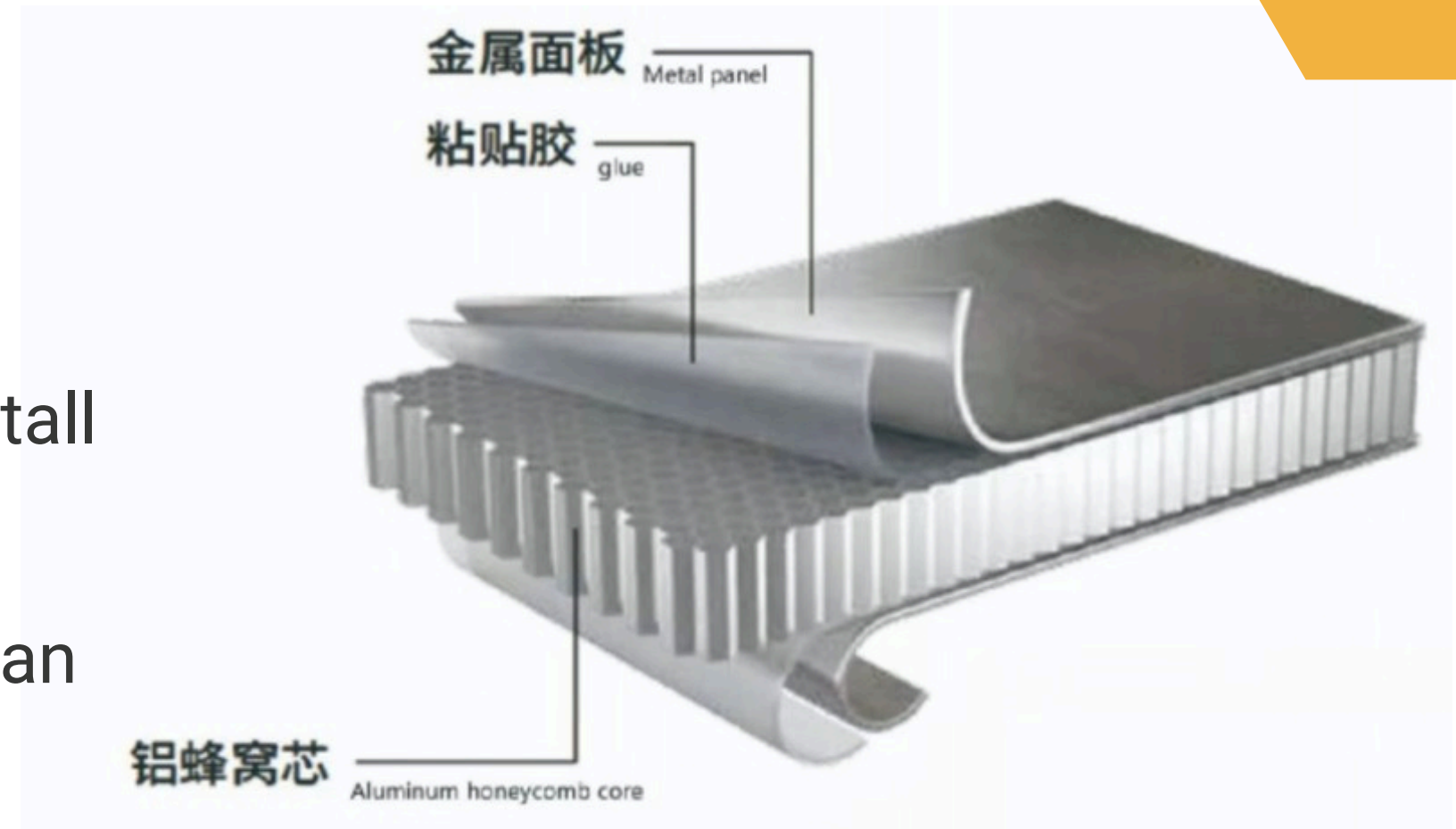
recyclable



easy to install

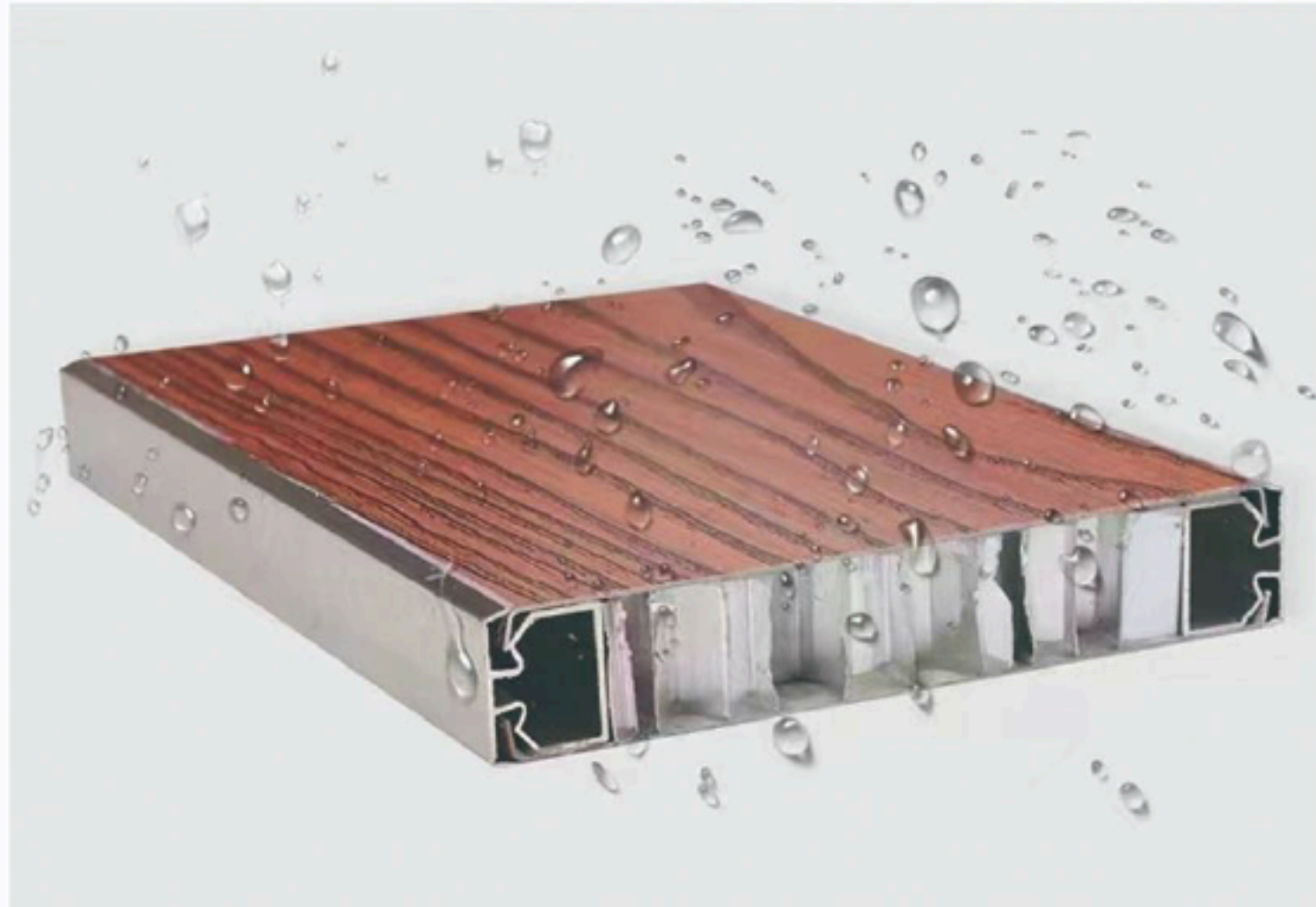


easy to clean

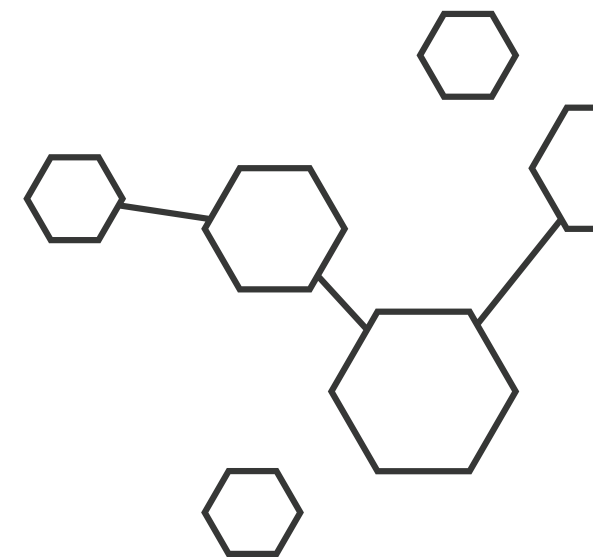
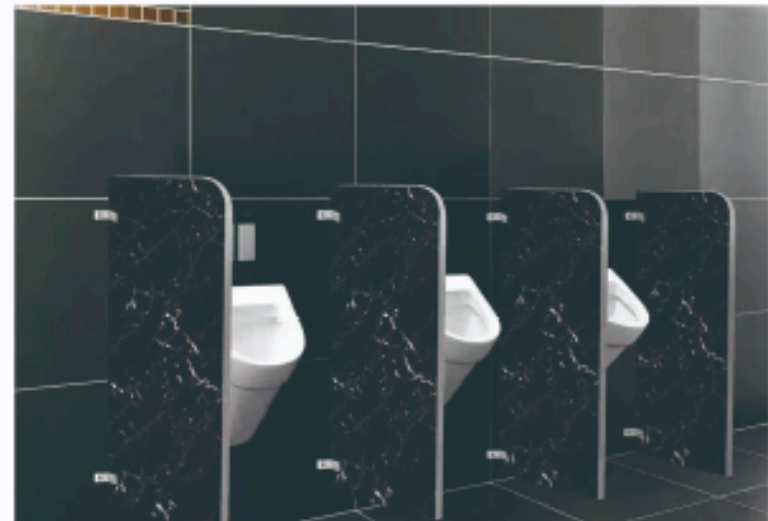
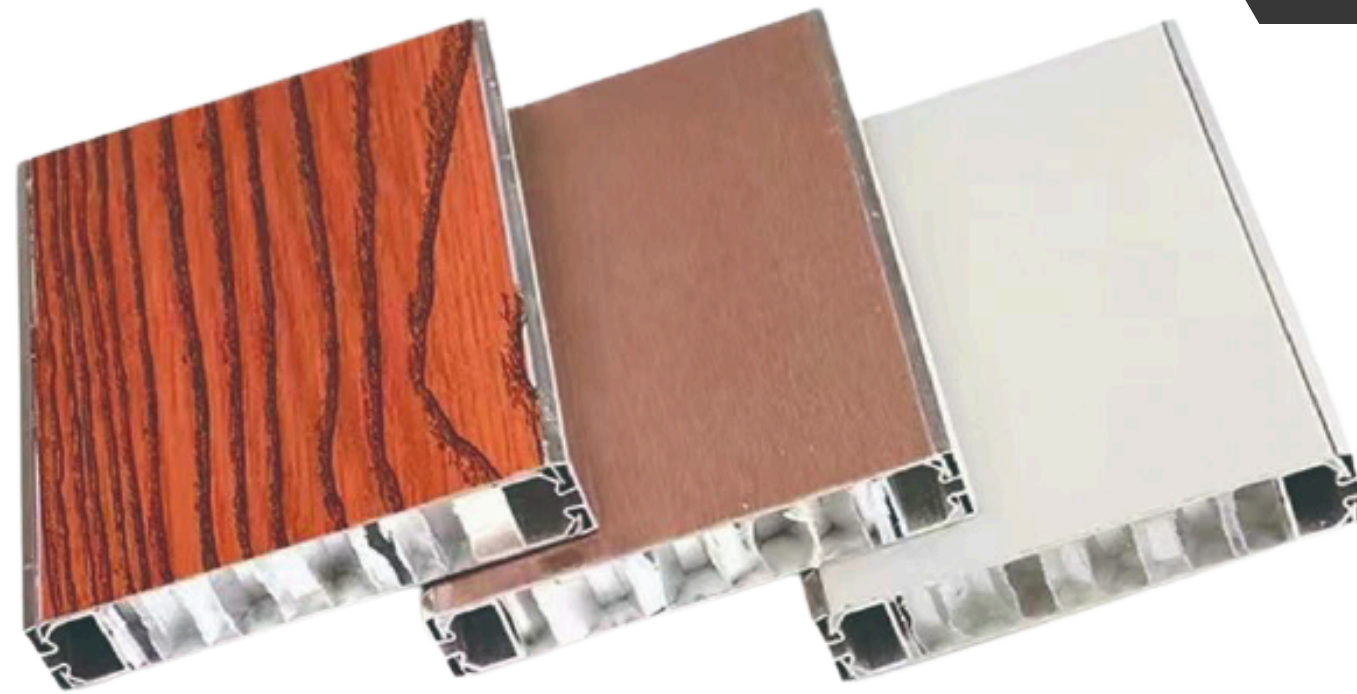


# ALUMINUM HONEYCOMB PARTITION PANEL

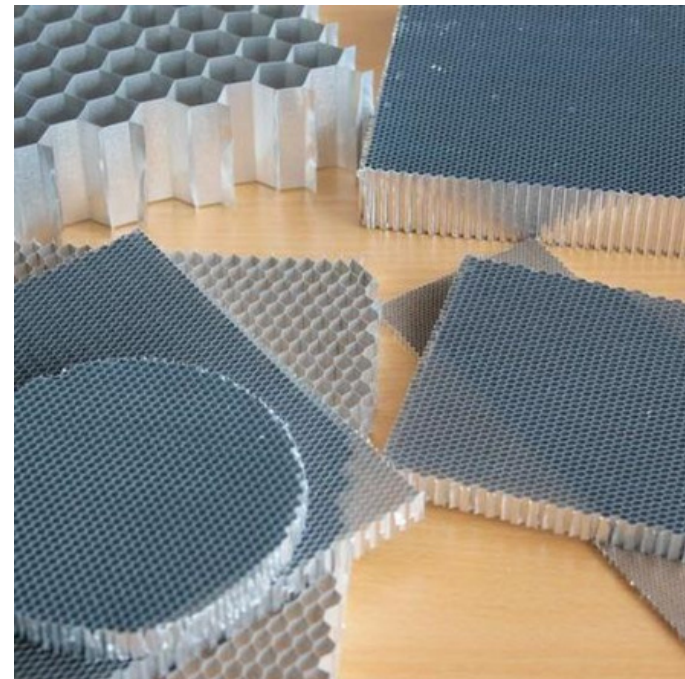
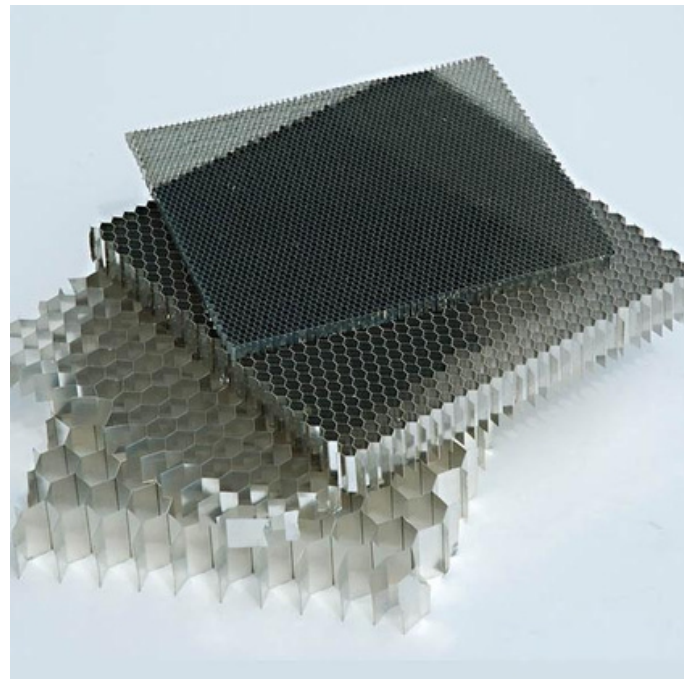
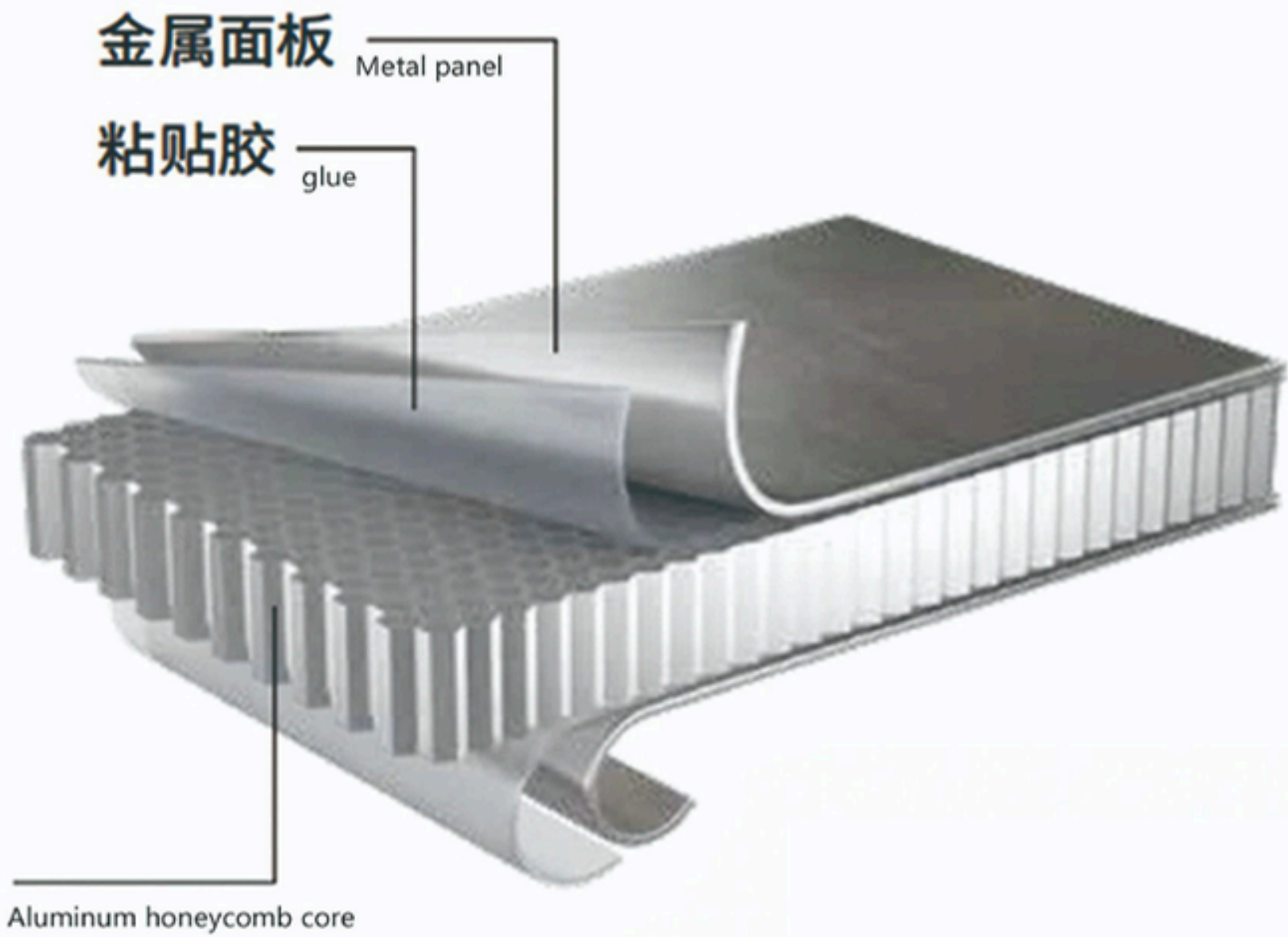
Waterproof and moisture-proof



Fireproof and anti-corrosion

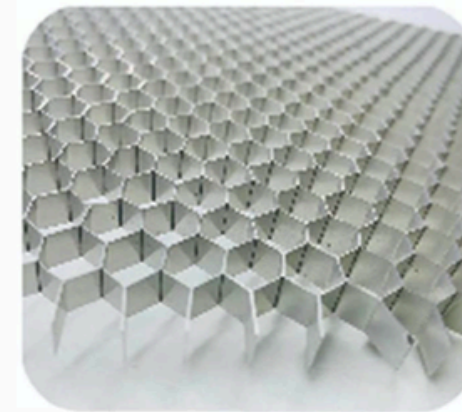
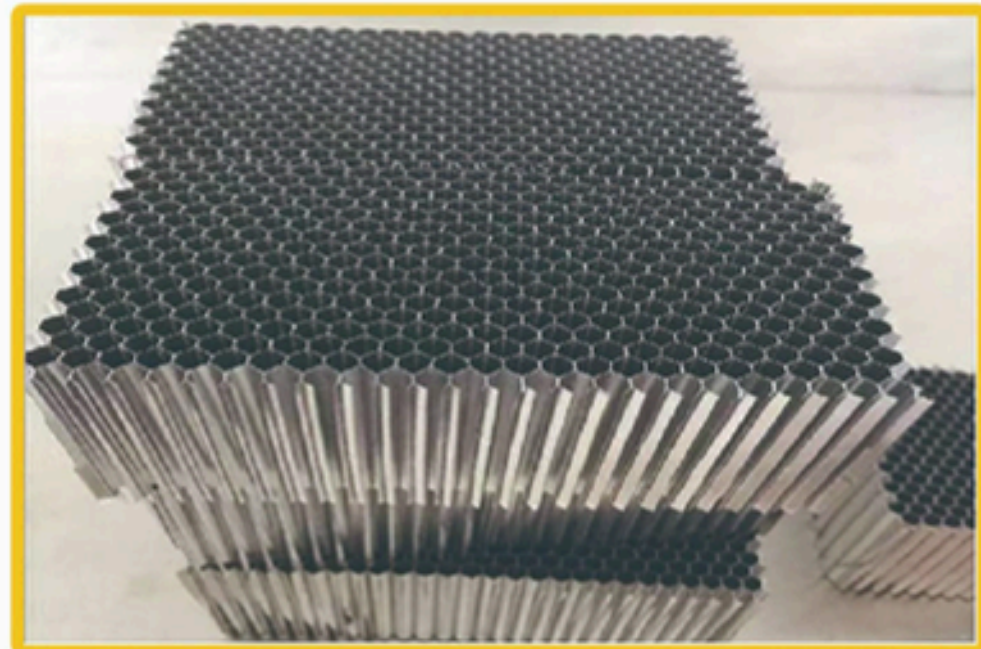
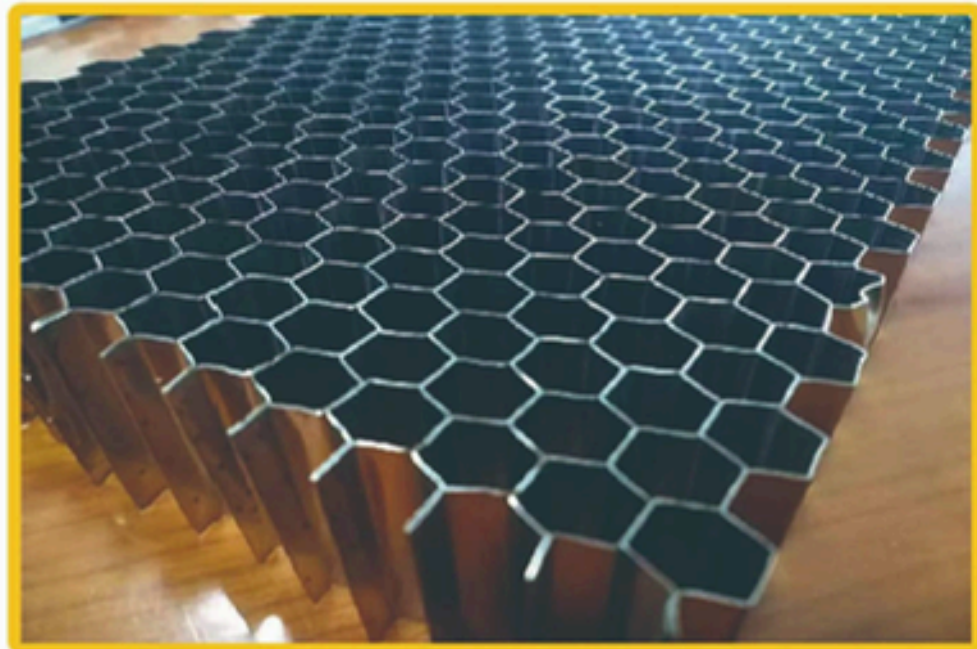


# ALUMINUM HONEYCOMB CORE



# ALUMINUM HONEYCOMB CORE & APPLICATION

The core layer of the aluminum honeycomb panel is a hexagonal aluminum honeycomb structure. The dense honeycombs that are restrained by each other are like many small I-beams, which can disperse the pressure from the panel direction, make the panel force uniform, and ensure that the panel can still maintain a high degree of flatness when it is large in area. In addition, the hollow honeycomb can also greatly reduce the thermal expansion of the panel. The supply form of aluminum honeycomb core material is divided into aluminum honeycomb stacked blocks, aluminum honeycomb core strips and aluminum honeycomb core blocks that are stretched and spread out.

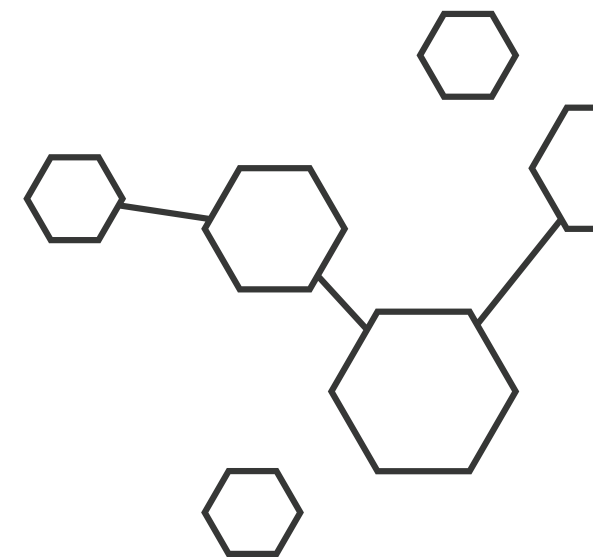
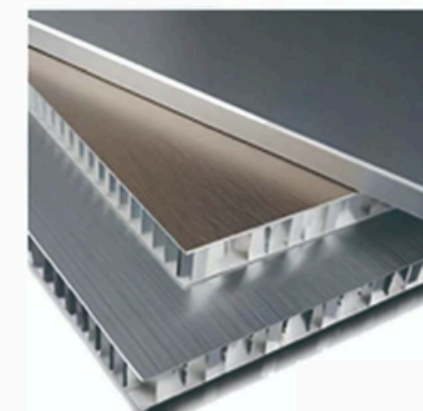


**RV**  
房车

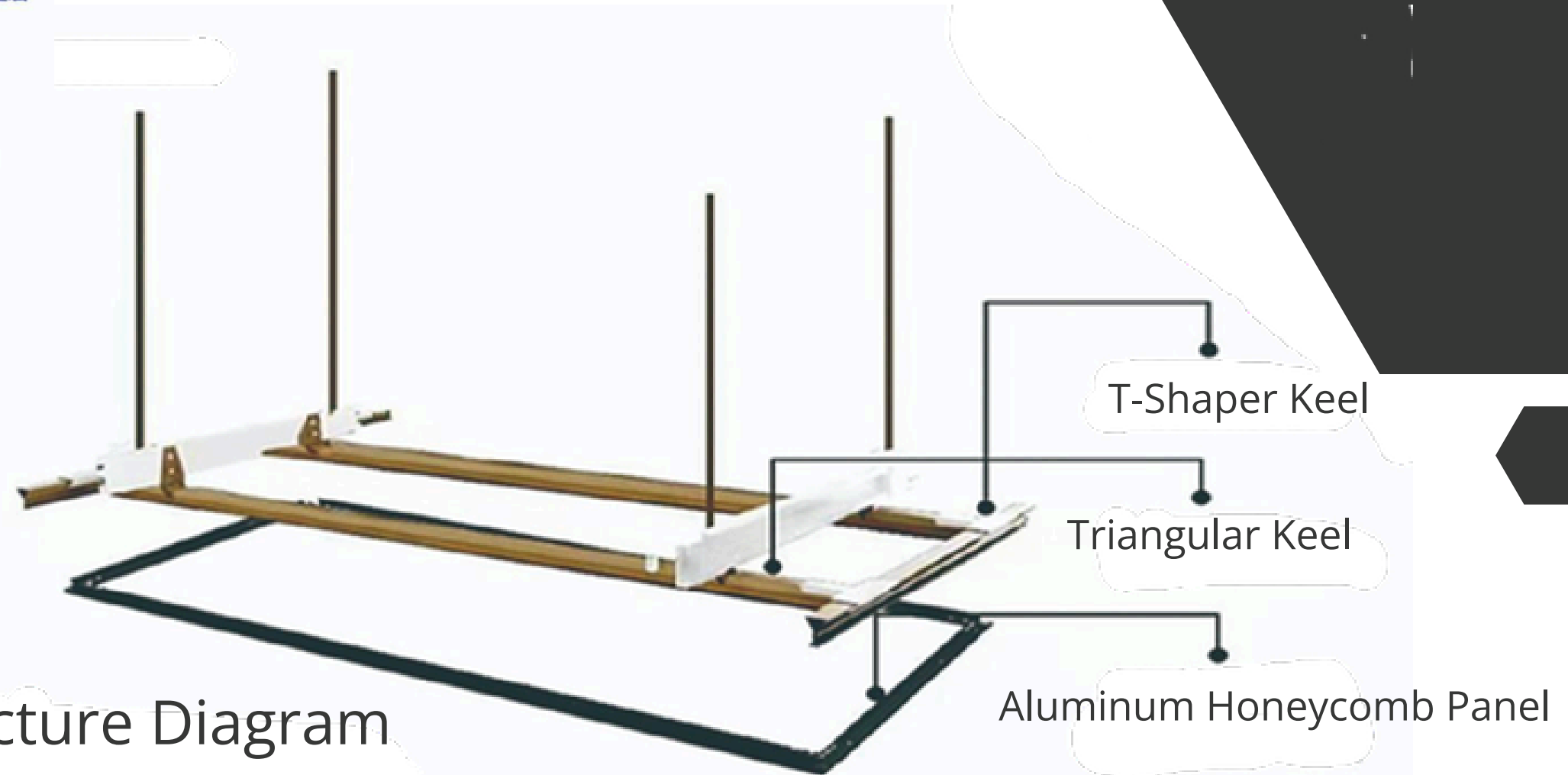
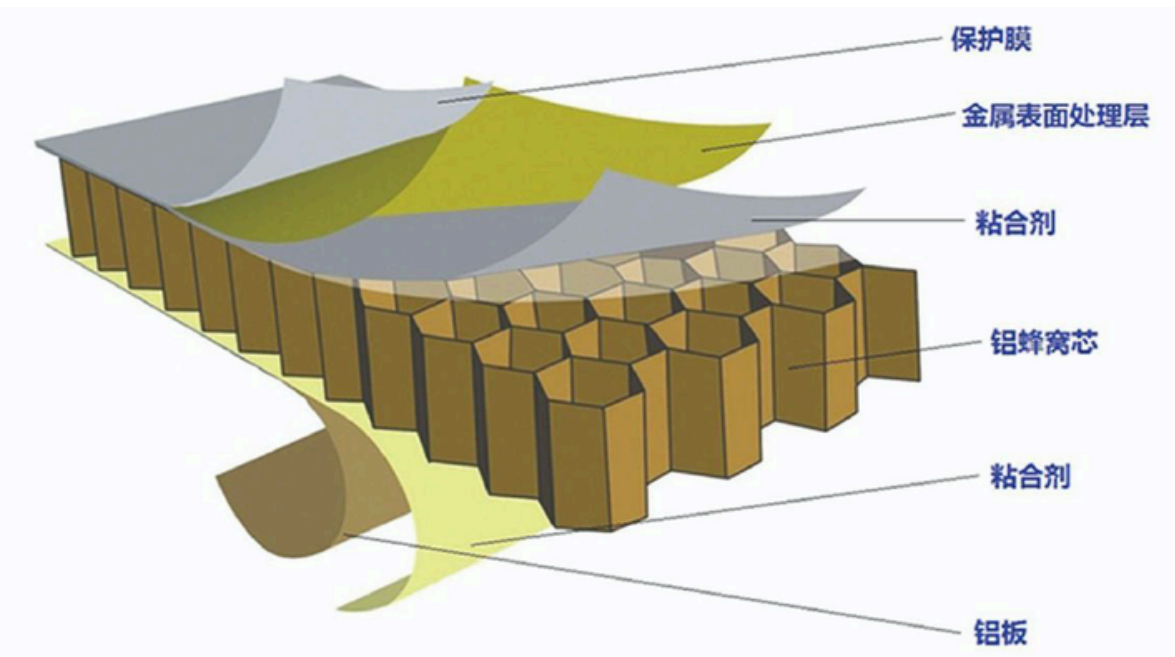
高铁邮轮  
High speed rail  
Cruise ship

**Airplane**  
飞机

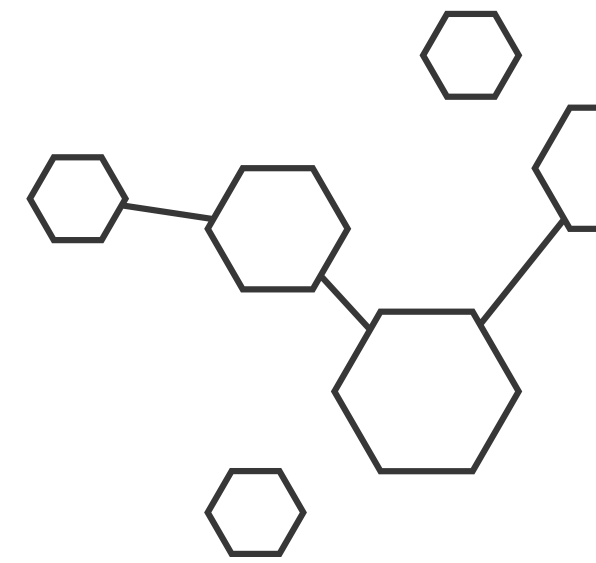
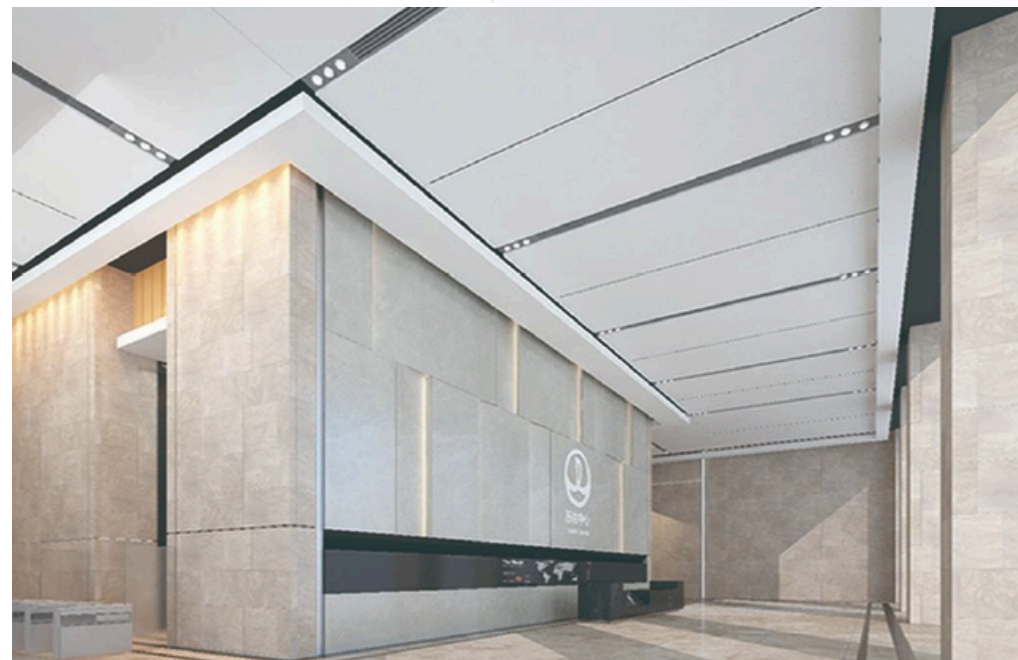
Engineering  
decoration  
工程装饰



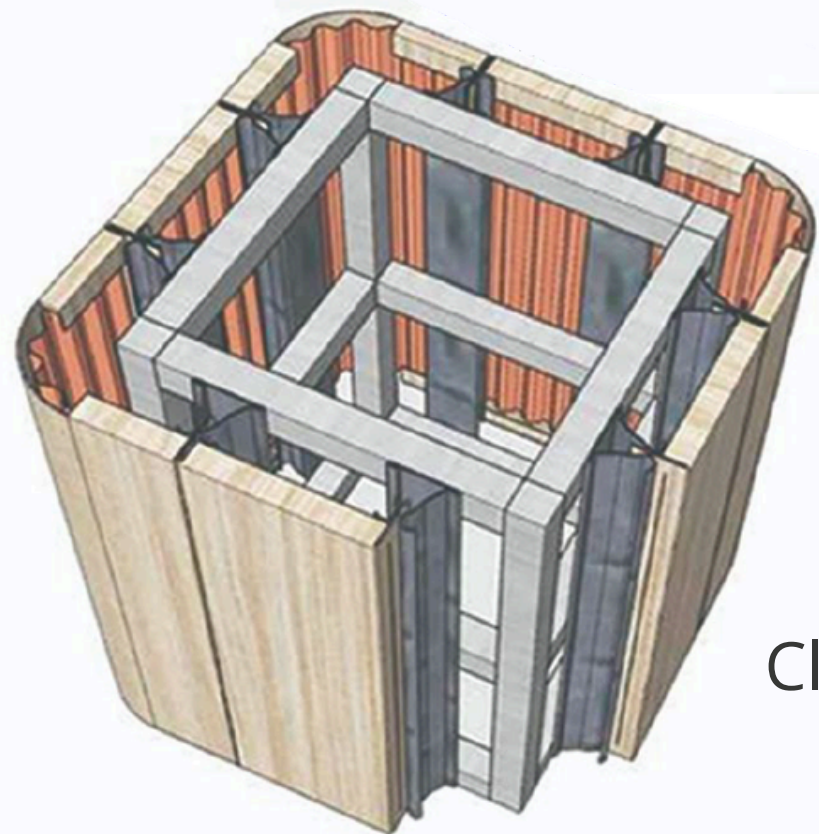
# ALUMINUM HONEYCOMB CEILING PANEL



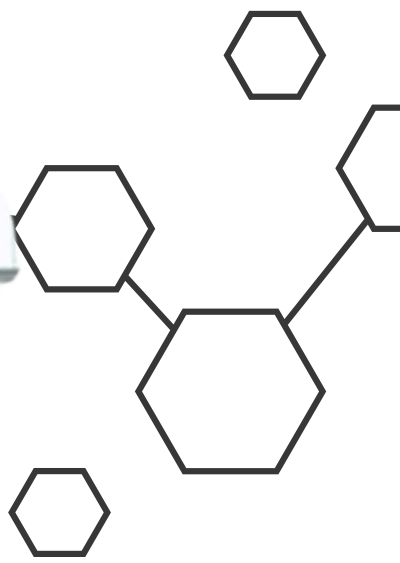
Ceiling Installation Structure Diagram



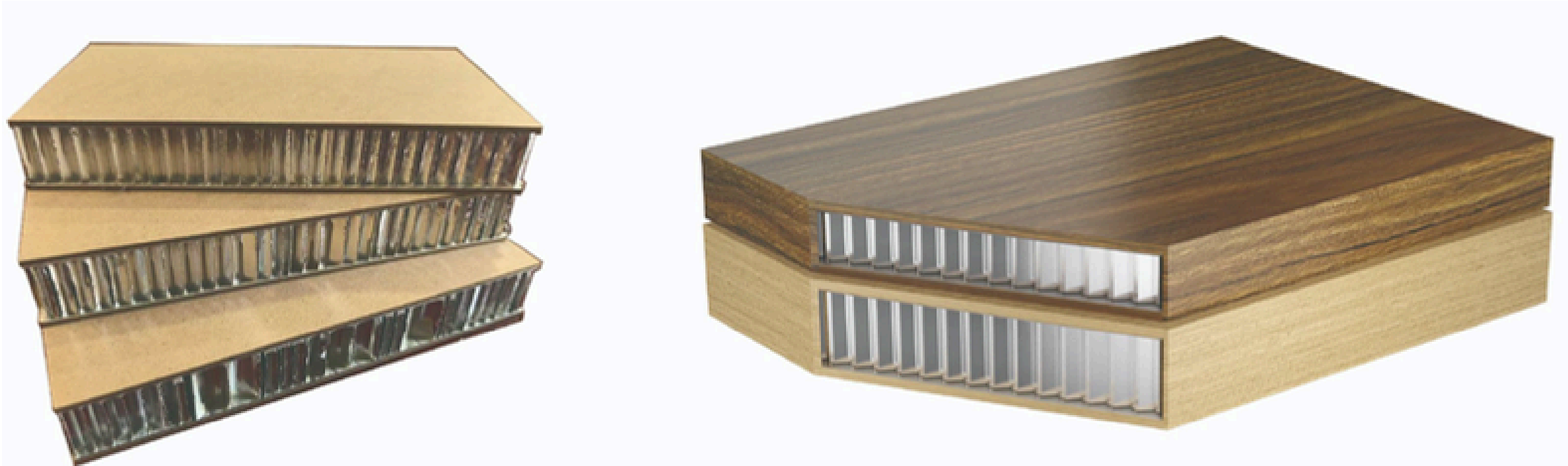
# ALUMINUM HONEYCOMB WALL PANEL



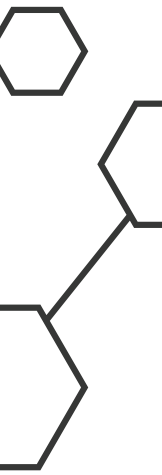
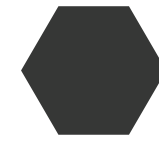
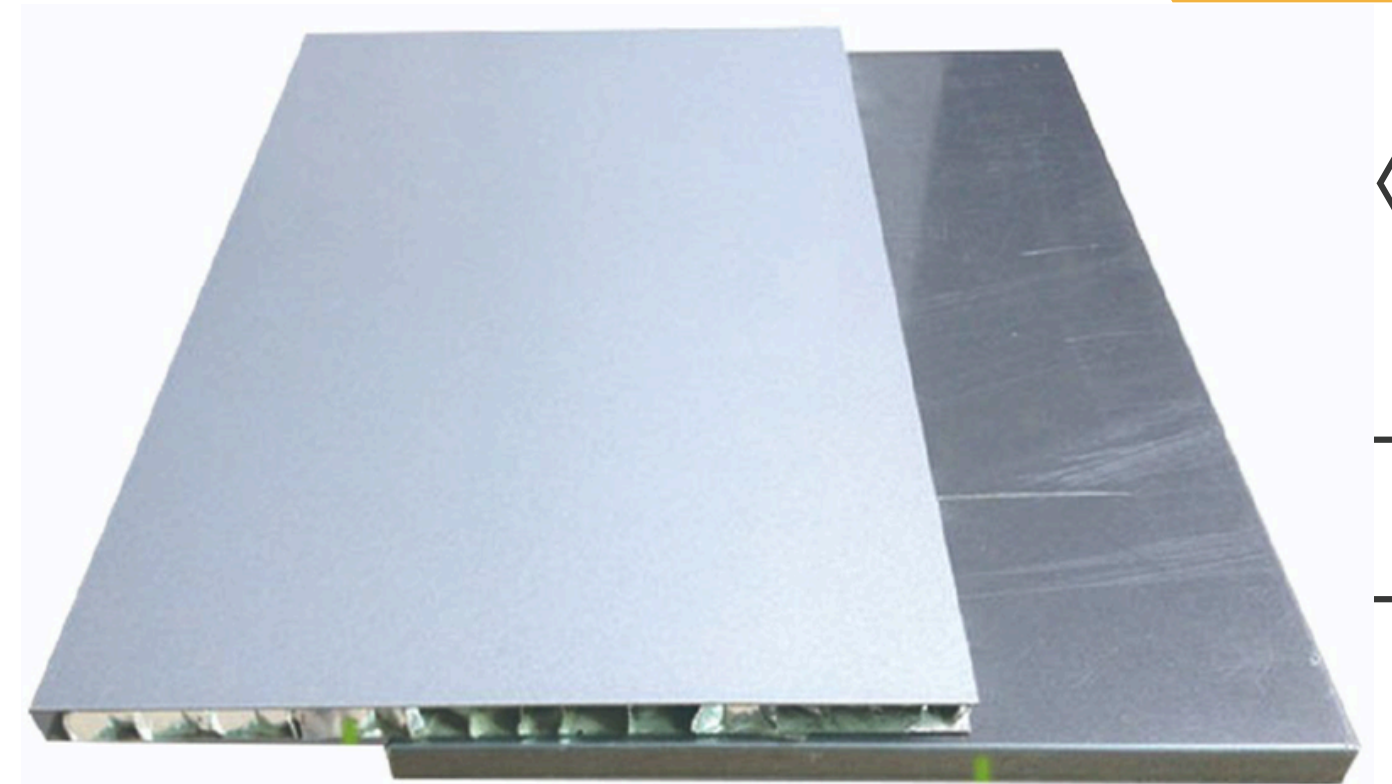
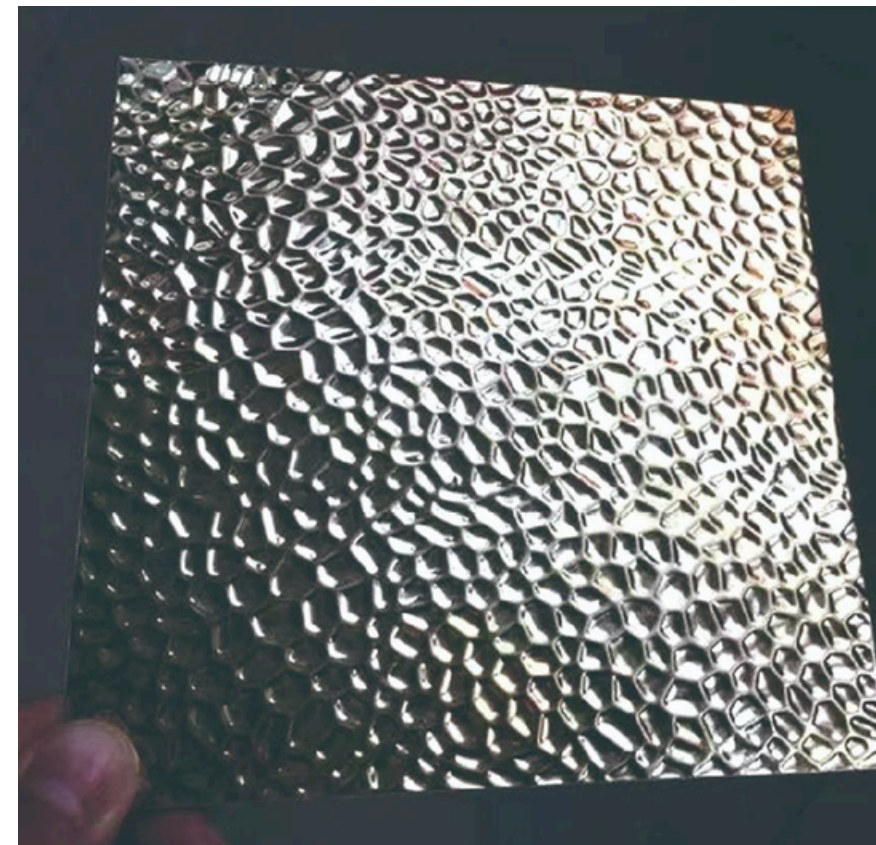
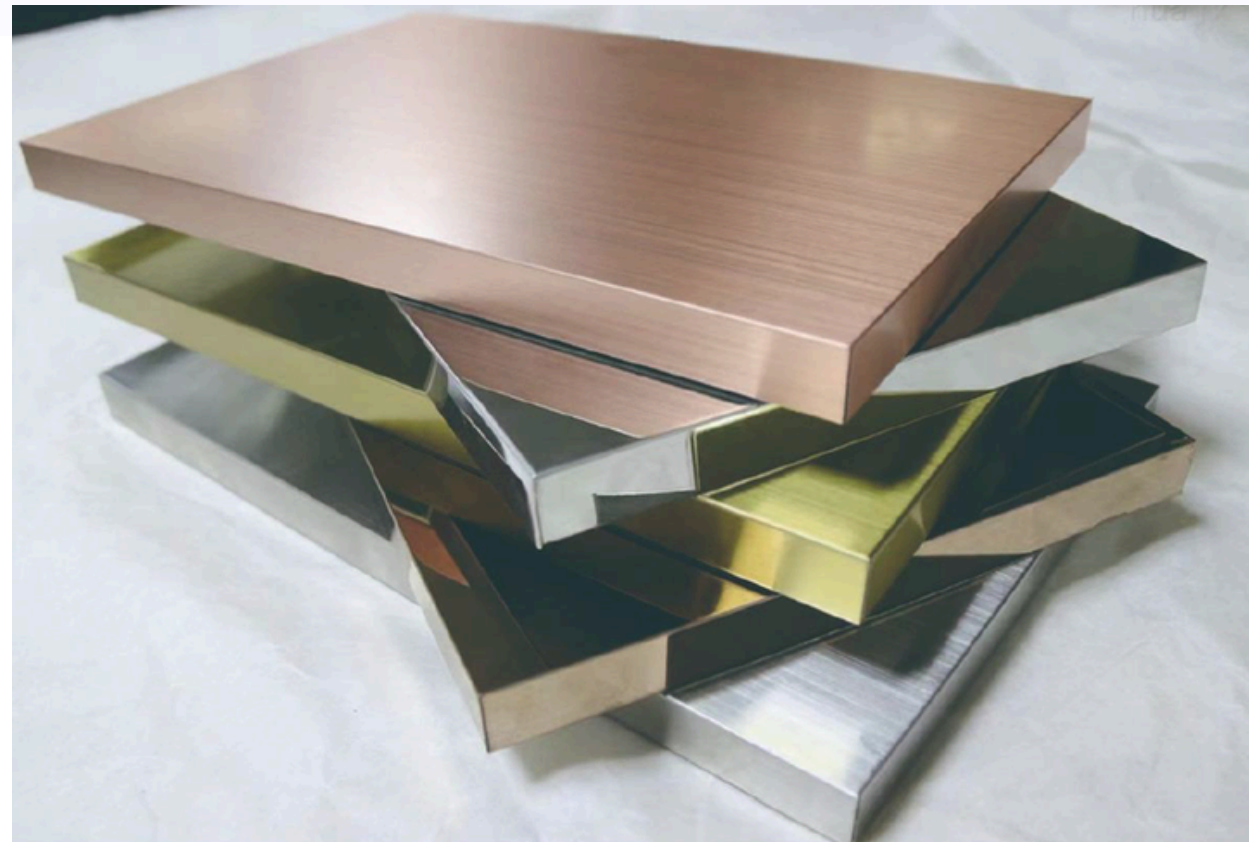
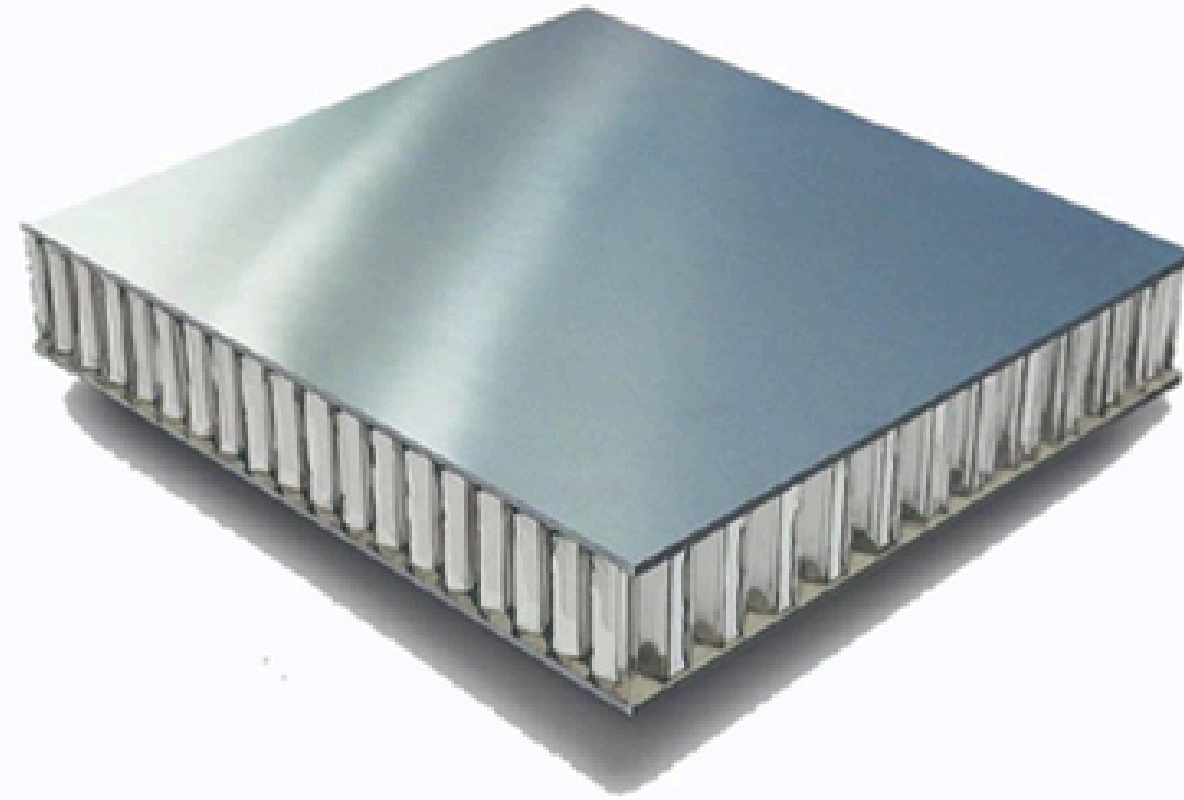
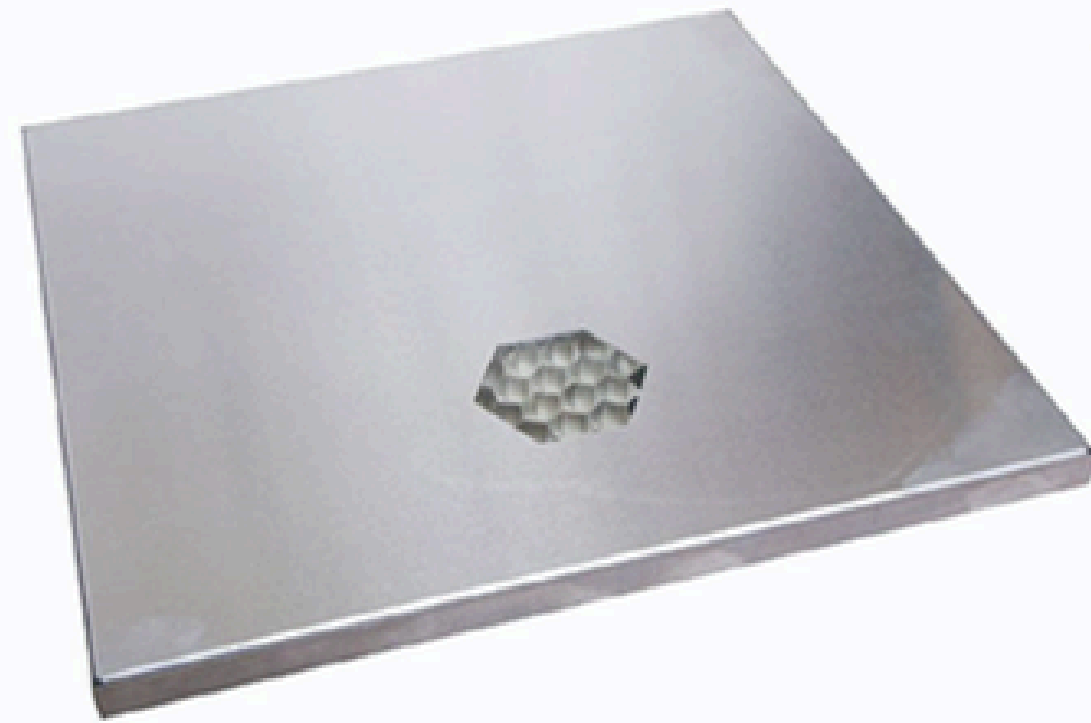
Clip-on Installation



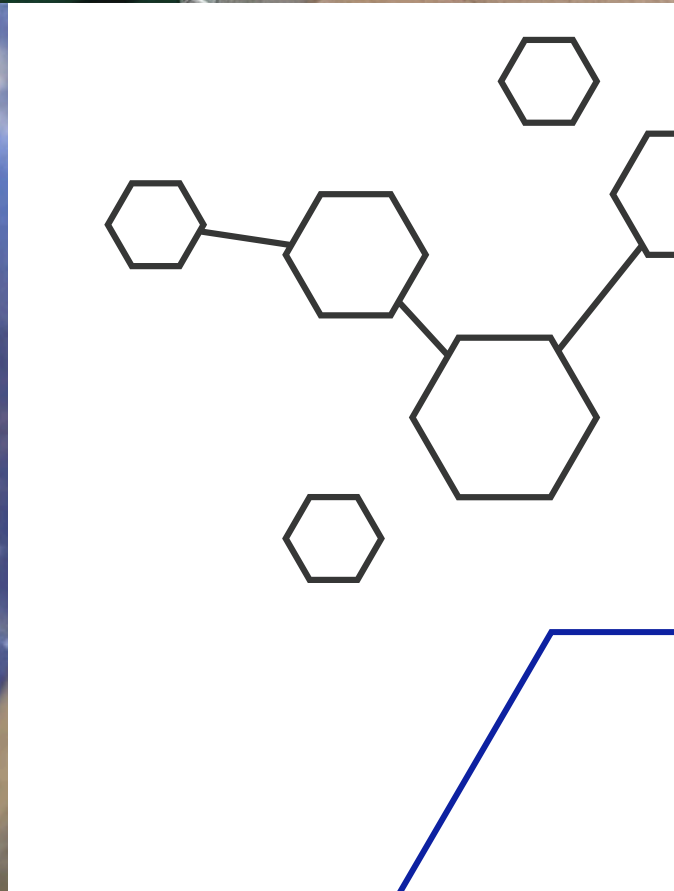
# ALUMINUM HONEYCOMB FURNITURE PANEL



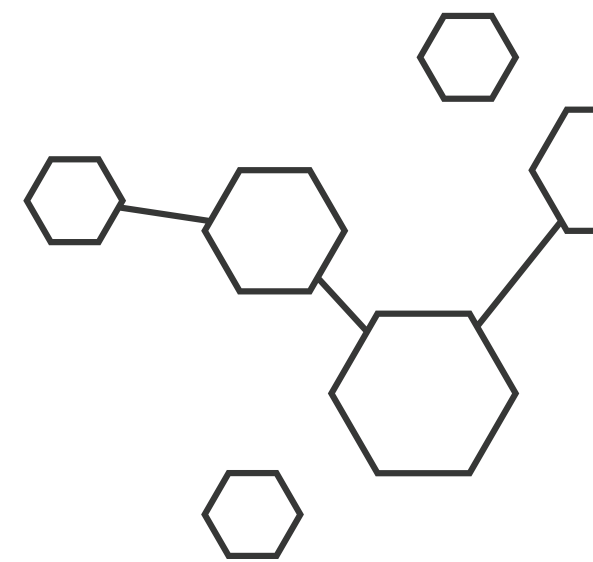
# STAINLESS STEEL HONEYCOMB PANEL



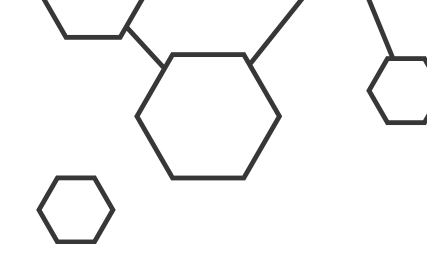
# STONE ALUMINUM HONEYCOMB PANEL



# STONE ALUMINUM HONEYCOMB PANEL



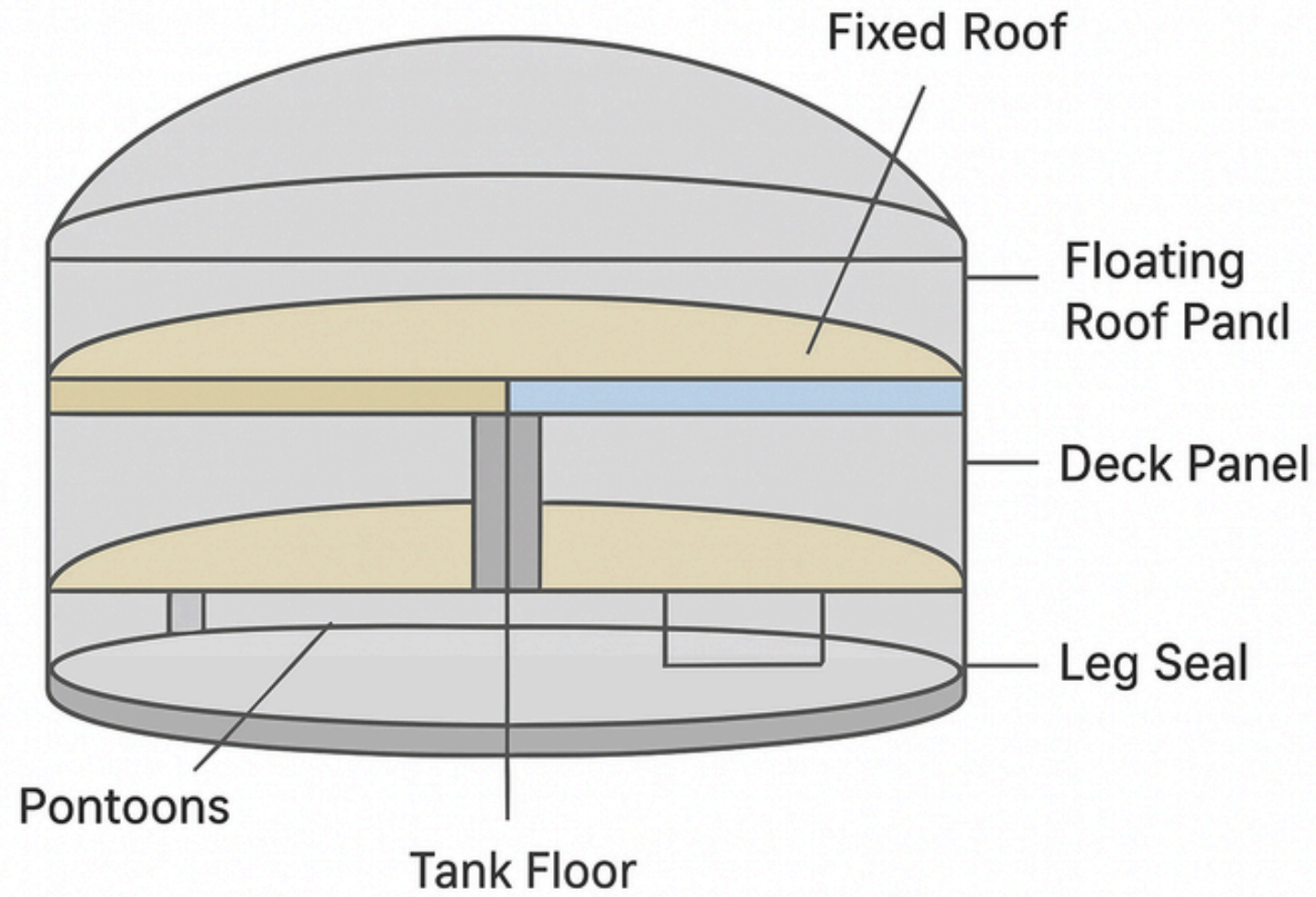
# PRODUCTION PROCESS - CASE SHARING



## ALUMINUM HONEYCOMB PANELS USED AS INTERNAL FLOATING COVERS FOR OIL TANKS ([HTTPS://WWW.CTS.GLOBAL/](https://www.cts.global/))

- **Receive Order**
  - Prepare the materials and specifications required by the customer
- **Aluminum Panel Selection**
  - High-quality aluminum alloy coil 5052-H34 with a thickness of 1.2mm is selected. The surface must undergo degreasing, cleaning, and chemical treatment to enhance adhesion.
- **Preparation of Honeycomb Core Material**
  - The honeycomb core is made of aluminum foil (thickness: 0.05mm). The aluminum foil needs to be coated with adhesive and stacked in multiple layers. The blocks are pressurized and heated in a hot press machine, allowing the adhesive to cure and form honeycomb blocks. Afterward, the honeycomb blocks can be expanded into hexagonal honeycomb cores.
- **Composite Panel Process**
  - The inner surface of the aluminum panel is evenly coated with epoxy resin adhesive. The honeycomb core is aligned and stacked with the upper and lower aluminum panels.
- **Wait and Shaping**
  - The composite panel is processed with a cold-pressed machine under 22°C for 8 hours to prevent deformation.
- **Trimming (optional)**
  - Cut and clean the edge of the honeycomb panel by trimming the machine

# aluminum honeycomb panels used as internal floating covers for oil tanks



Aluminum Honeycomb Structure | Durable Exterior Panels

1.5mm Aluminum Skin

Aluminum Honeycomb Core

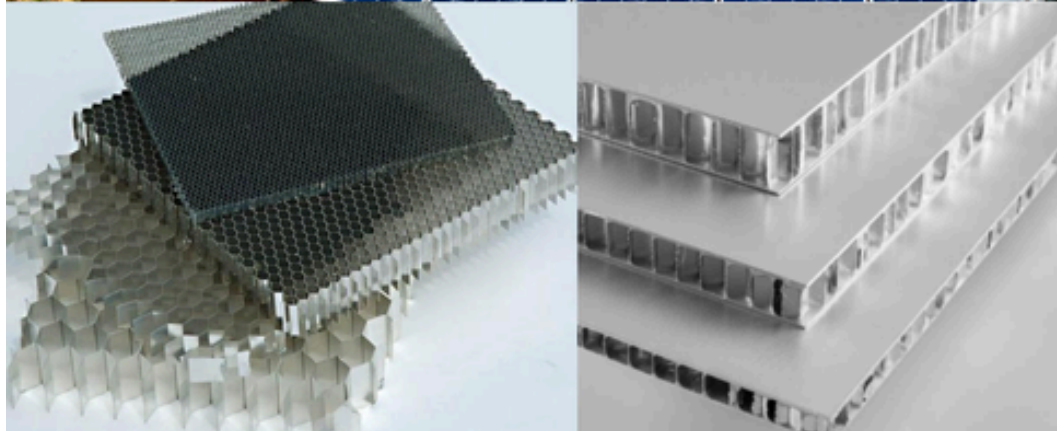
1.5mm Aluminum Skin

Lightweight & Strong

Vibration & Impact Resistant

Easy to Clean Surface

**MEDICAL INSTRUMENT ENCLOSURE WITH ALUMINUM HONEYCOMB PANELS**



**Lightweight Strength for Sustainable Solar: Aluminum Honeycomb Panels**

**BIPV SOLUTIONS**

## APPLICATION OF ALUMINUM HONEYCOMB PANELS IN THE SOLAR PANEL INDUSTRY

### APPLICATION SCENARIOS

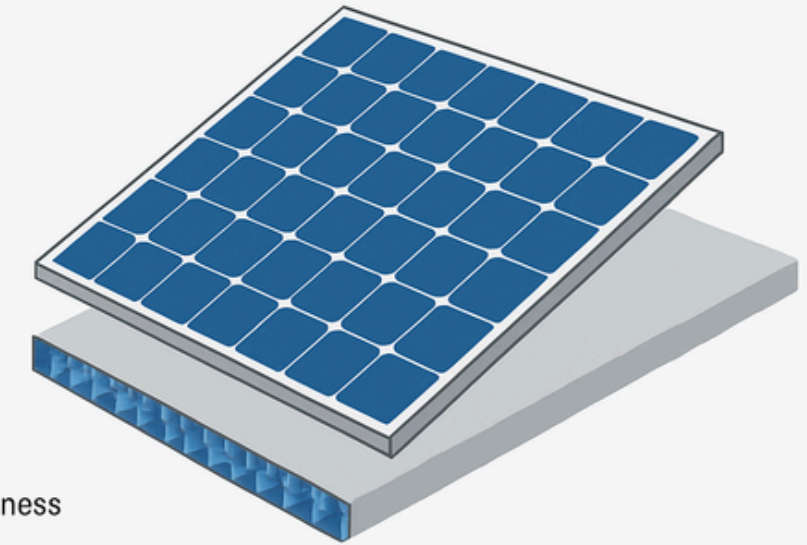
- Mounting base plate
- Backsheet / back panel
- Structural support material for photovoltaic panels
- Lightweight platforms for portable solar systems

### ADVANTAGES

- Lightweight and high rigidity
- Excellent weather resistance
- High surface flatness
- Customizable dimensions and thickness
- Moderate thermal conductivity

### POTENTIAL APPLICATIONS

- Used as a lightweight mounting base in solar array systems located in deserts or remote areas, making installation and transporta-



### POTENTIAL APPLICATIONS

- Applied in BIPV (Building Integrated Photovoltaics) projects, serve a curta wall back panel integrated with solar modules

# INTERNAL AUDITS AND COMPLIANCE

- **Audit:** our company has passed the ISO 9001 (quality management system), ISO 14001 (environmental management system) and ISO 45001 (Occupational health and safety management system). For the inspection of raw materials, we will have raw material suppliers give relevant certificates. We will regularly send the products to the inspection center for quality inspection.
- **Compliance:** our products are certified with CE.
- **Process:** the factory schedules regular internal audits where a team of trained auditors evaluates various processes, such as material handling, production, and delivery processes, to ensure they align with ISO 9001 requirements.



# RISK MANAGEMENT

- **Risk Identification:** The factory identifies potential risks during the production process, such as supply chain disruptions (e.g., delays in material delivery) or machine breakdowns.
- **Risk Assessment:** The likelihood and impact of risk are assessed by dedicated project owner.
- **Mitigation Strategy:** To mitigate this risk, our factory has established strong relationships with multiple suppliers, implement a more efficient inventory management system, or schedule regular equipment maintenance to reduce the chance of machine breakdowns.
- **Example in Action:**
  - We have multiple alternative suppliers to raw materials such aluminum and adhesives. They will be maintain a safety stock. During the production process, each batch of adhesive will be accompanied by a supplier-provided inspection certificate to ensure quality compliance.
  - Our company has obtained ISO 9001 and other certifications, demonstrating our capability in quality risk control.



# THANK YOU

Thank you for your attention to this presentation. We will continue to innovate and grow to create new opportunities in the manufacturing industry.

