

# ALUTILE<sup>®</sup> 3A Panel

Aluminum Core Panel

Metal Wall System  
Professional Manufacturers



# ALUTILE<sup>®</sup>

JIANGXI ALUTILE BUILDING MATERIALS CO., LTD



# Metal Wall System Professional Manufacturers

The ALUTILE logo is displayed in a white serif font with a registered trademark symbol. It is positioned on a dark blue rectangular background that is part of a larger graphic overlay on the left side of the image. The background image shows a large industrial building with a corrugated metal facade and the ALUTILE logo on its upper right side. There are some trees and a yellow sign in the foreground of the building image.

## ALUTILE®

Focus on Metal Curtain-Wall System  
Since 1995

Jiangxi Alutile Building Materials Co., Ltd. is a joint-stock company that runs according to the requirement and regulation for listed company, its holding company is HONGTAI GROUP. As one of the earliest enterprises manufacturing aluminum composite panel in China, Alutile has focused on research, manufacture, sales and service of metal wall system for more than 20 years. ALUTILE® products and brand has been awarded China top brand and Chinese famous brand, moreover, ALUTILE hold the complete independent intellectual property rights for many products.

With more than 20 years' experience in manufacturing curtain-wall panels and time element of eco-friendly & application innovation, we devoted ourselves in providing high quality product for customers.



## Corporate Honor

## Industry Status

- Deputy director enterprise of aluminum composite panel of China Building Materials Association
- One of the main drafter of the national standard for aluminum plastic composite panels.
- Quality management training base of China aluminum plastic composite material industry
- Science and technology research and development base of Ministry of science and Technology Information Research Institute
- Key high-tech enterprises of the national Torch Program
- National premium tax credit rating enterprise

## Core Honor

- Famous enterprises, famous brand in China's building materials industry (Awarded by the Ministry of construction of China)
- China top ten brand of curtain wall industry (Awarded by National Institute of building materials standardization).
- Famous brand of China aluminum plastic panel (Awarded by China Construction Industry Association aluminum plastic composite branch)
- Advanced enterprise to safeguard consumer rights and interests (Awarded by Jiangxi Consumers Association)
- Olympic building materials recommendation certificate (Editorial board of the Olympic construction engineering materials and equipment)
- Top ten brands of curtain wall materials in China's building materials market(Awarded by China Building Materials Enterprise Management Association, China business card promotion association).
- Reliable and reliable building materials (Awarded by China Building Materials Circulation Association )
- China's famous brand of building decoration materials (Awarded by China Building Decoration Association).
- China's outstanding private science & technology enterprises (China private science and Technology Promotion Association)
- China Construction Application Innovation Award (Awarded by China Construction Association and National Exhibition Center for building materials)







Catic Hotel, Beijing, China



Cuprum Arena, Poland



Infinity Tower, U.A.E

## Development History

Over 20 years hard course, ALUTILE developed and grew in exploration and practice step by step, the metal curtain-wall materials have been sold over more than 100 countries and regions all around the world, become the most influential enterprise in the industry.

### • Starting 1995~2000

In 1995, Establishment of Jiangxi Hongtai Building Materials Industry Co., Ltd. (company's predecessor)

In 1998, The first enterprise in the industry gained ISO9000 certificate.

In 1999, participation in drafting ACP industry's first China national standard GB/T 17748-1999.

In 2000, Included into National torch project.

### • Development 2001~2005

In 2002, Appointed as "China construction industry association aluminum - plastic composite materials branch"

In 2003, Established the advanced laboratory for full testing items of metal composite curtain wall material in the industry.

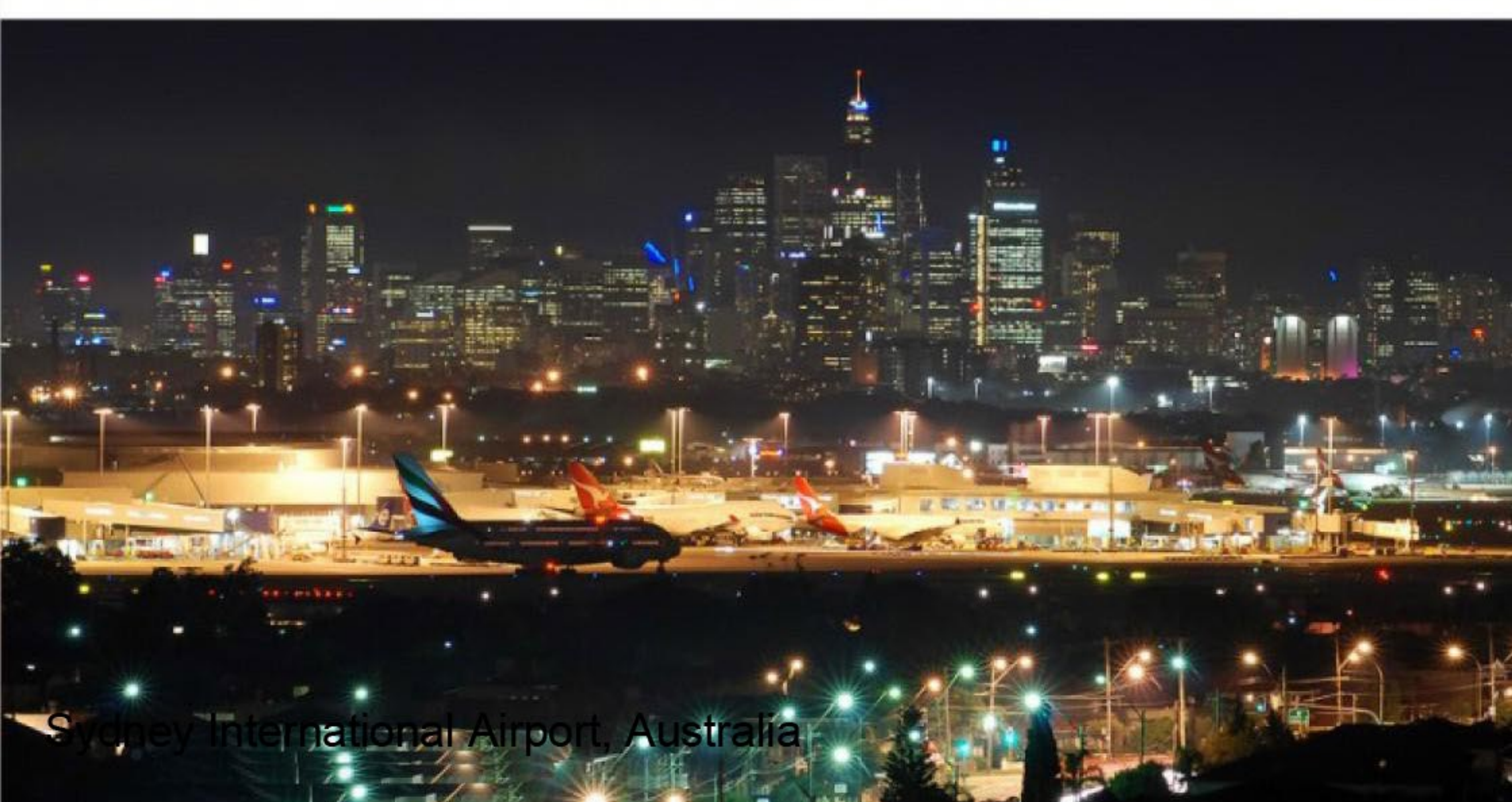
In 2003, Awarded as "National Key High-Tech. Enterprise"

In 2003, Created international marketing department, set up global sales network.





Shijingshan Stadium, Beijing, China



Sydney International Airport, Australia



Beijing Capital Airport, China

## Development History

### • Expansion: 2006-2017

2006, The first batch enterprises that won the title of China top brand in the industry.

2007, ALUTILE<sup>®</sup> products passed European certification CE.

2007, Top 3 industry's comprehensive strength enterprise, advanced overseas sales amount of own brand among the industry.

2007, Referring to International similar product's testing data, set the company standard which has 19 key index over than China national standard, which make ALUTILE reached same quality level as international brands.

2008, became PPG's biggest coil coating customers in China.

2008, ALUTILE<sup>®</sup> products passed the test as per ASTM and BS standard.

2009, Awarded as "China famous brand".

2009, Awarded as the sole authorized client by American Hylar in China.

2013, Top 500 China building materials enterprise, top 100 the most developed Chinese building materials enterprise.

### • Expectation: 2018~

In 2018, ALUTILE possessed 7.2 million square meter production capacity to produce several kinds of metal curtain wall material, which owns production line of Aluminum Composite Panel, Aluminum Core Panel, Thermal Insulation Panel, Aluminum Solid Panel etc series over 20 kinds products, has entered into an new journey of times pursuit.



# First-Class Production Base

ALUTILE import and long-term insist on implementing ISO9001 International Quality Management System and "5S" modern management, focus on customer goal, has a complete product quality testing equipment to control each working procedure of whole production process from raw materials into the factory to products output, to improve product's various performance index.

## Perform superior to National Standard's manufacturing standard, improve various performance indexes of the product

Various key indexes of enterprise standard which performed by 3A Panel is superior to the National Standard requirements. Such as hydrochloric acid resistance, alkali resistance, oil resistance of PVD coating reach 72 hours with no change (National Standard is 24 hours with no change), The superior resistant to chemicals corrosion during the construction process ensure to stand all kinds of outdoor man-made and natural test. And coating thickness two coated  $26 \sim 28 \mu\text{m}$ , three coated  $33 \sim 35 \mu\text{m}$  (primer  $5 \sim 7$  microns, top coating  $20 \sim 23$  microns) make 3A Panel more capable of suffering the outdoor ultraviolet irradiate; also can ensure the product's service life even in the relatively poor circumstance.



ALUTILE insist on fulfilling production and application concept of low carbon environmental protection, firstly pass ISO14001 International Environmental Management System Certification Authority in the industry. Meanwhile we made a huge investment to introduce domestic and overseas advanced environmental protection treatment equipment, continuously to provide customers with "Economizing energy - resources, Zero pollution discharge" products.



## Cooperate with the world's famous enterprises to produce more durable products

The raw materials of ALUTILE<sup>®</sup> 3A Panel are supported by world's famous enterprises, such as American PPG Company, Sweden BECKER Company, China Aluminum Group, Germany Henkel Company, and French Novacel Company etc.





## Subtle and strict roller coating process makes the panel more perfect

ALUTILE<sup>®</sup> 3A Panel coating adopts international advanced precision multiple-roll reversal continuous coating process, then the coating thickness and appearance quality can be controlled precisely. Adopting international synchronous ultrashort wave infrared baking varnish technology uninterrupted two painted two baking process, to make the coating reach the optimized condition in its solvent resistance, hardness, flexibility, and etc. (key performance index)



## High peeling strength

The compositing technics of VA nontoxic and special bridging improves the peeling strength which is the key technical index of ALUTILE<sup>®</sup> 3A Panel, to the optimized condition.

## Subtle control system ensures the accuracy of panel's specification

ALUTILE<sup>®</sup> 3A Panel adopts the control system from AB Company to control the subtle production, strictly control each panel size's accuracy.



## Leading double-sided pressure balance technique makes the panel more balanced and stable

ALUTILE<sup>®</sup> 3A Panel adopts leading double-sided pressure balance technique, can effectively balance the internal stress generated during the hot pressing process, to make the panel more straight and stable without warping deformation





# The First Class Laboratory for Metal Curtain Wall Materials

The laboratory with the testing capability of full test items ensure our technical of product to keep ahead in the field all the way.



## The Laboratory of Climate Environment Simulation

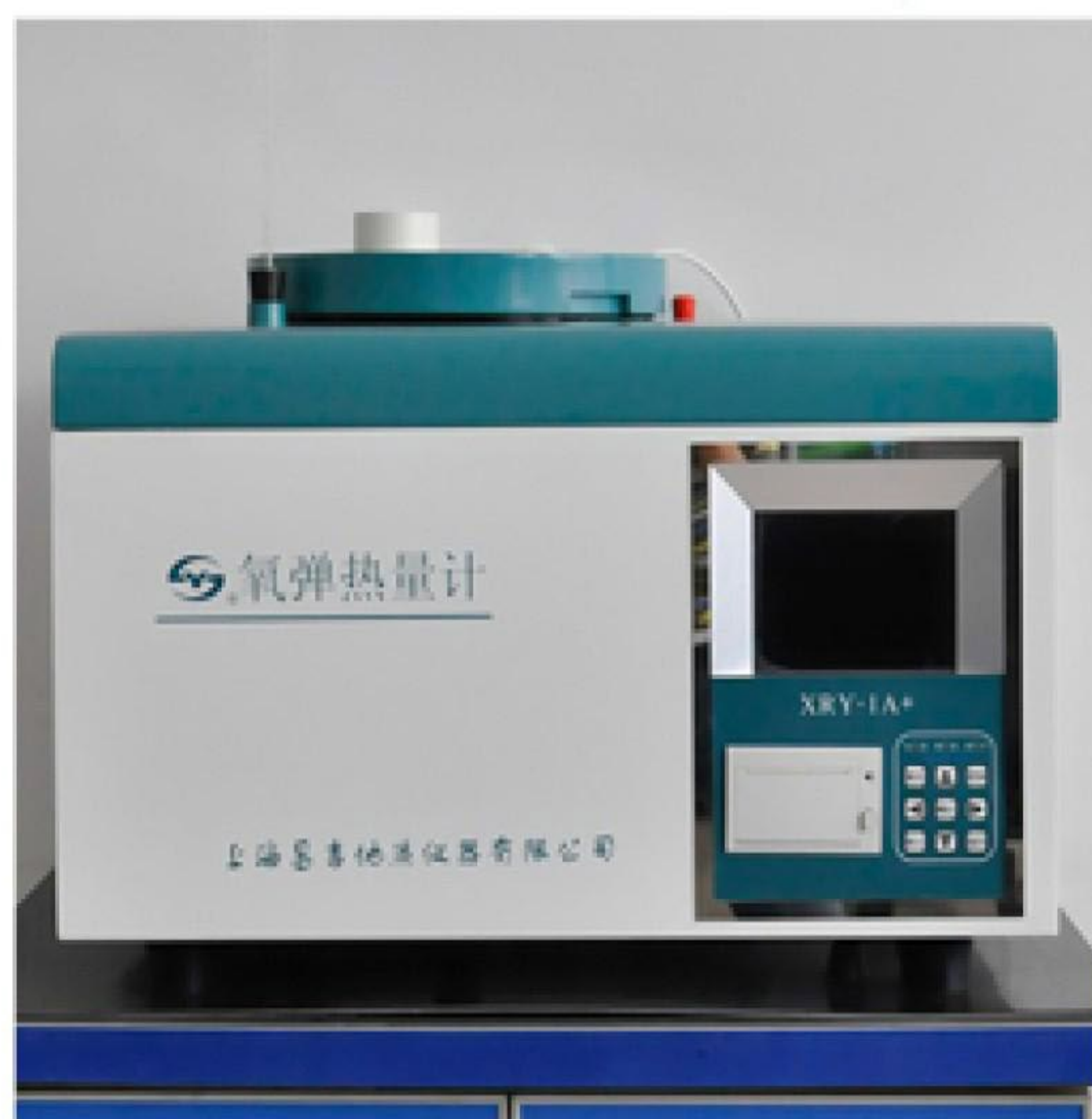
Simulate the effect to metal curtain wall building material by UV rays in our natural environment, pollution of acid, alkali & Salt or wind & sand. Evaluate comprehensive weather resistance property of building material.





# The First Class Laboratory for Metal Curtain Wall Materials

Over the past twenty years, our company establishes a top-ranking laboratory for Metal curtain wall material in the industry and dedicates to innovative research and development to push the industry forward. 3A panel, ALUTILE thermal insulation panel, fire resistance PE core, fire resistance Aluminum Composite Panel are very influential patented products. Besides our own fl&D capability, our company also cooperates and communicates with China Building Materials Industry Association Aluminum Composite Material Branch, Institute for Scientific Information Ministry of Construction, School of architecture Nanchang University etc. professional organizations to keep our technology ahead in the industry.



## The Physical Property Laboratory

Test bending strength, peeling strength, wind pressure, coating adhesion etc. of metal curtain-wall building material to improve physical property to the utmost.

## The Chemical Property Laboratory

Analyse the combination of chemical element of different raw material for metal curtain wall building material. It plays an essential role in improving fire resistance, boiling water resistance, coating property etc.



Metal Wall System Professional Manufacturer

**ALUTILE®**  
SINCE 1995



**3A Panel** (Aluminum Core Panel)  
The Five-Star Quality, Strong Warranty





# Product Profile

3A panel is compounded by three layer Aluminum sheets. Top Aluminum sheet is coated with excellent weather resistance  $\text{TiO}_2$  coating or PVDF coating as decoration and protective finish, Middle Aluminum sheet is processed into both sides interlaced, evenly arrangement hollow and trapezoid column overhanging block with concave-convex, Bottom Aluminum sheet is cleaned completely and made chemosynthesis treatment on the surface.

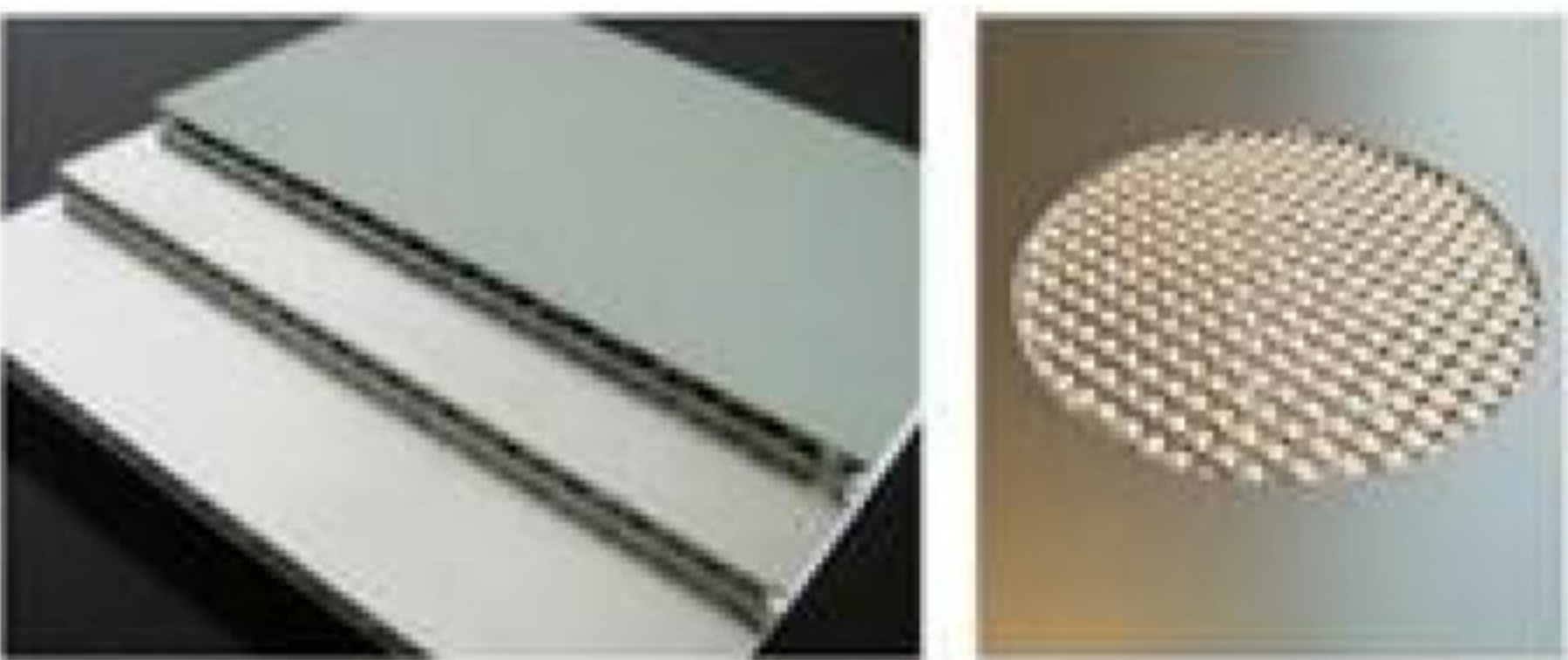
3A panel adopts full dimensions 3 layers structure and continue to use our special mature bonding technology, the attenuation rate of peeling strength is less than 5% within 20 years.

3A panel combines the advantages of several kinds of metal composite panel. It possesses excellent evenness, light weight and high strength, small change rate of compression resistance, unique texture, outstanding weather resistance, easy to process, superior fire resistance, high depreciation recovery rate etc.

Since 3A Panel adopts unique edge folding at the corner structure, not only improved bending resistance, wind-load resistance and fatigue life of cyclic loading of materials, but also further increased waterproof, anti-corrosive, penetration resistance and working life of curtain wall.

## Basic Parameter

Basic Material		Metal Aluminum Panel	
Coating		TiO <sub>2</sub> coating	
		PVDF coating or wood-like film are available if choose other colors.	
Color		Several standard colors (color chart for 3A panel)	
		30 kinds of non standard colors are also available (refer to color chart of ALUTILE Aluminum Composite panel)	
Size	width	1220mm, 1570mm (Max.)	
	Length	2440mm or as per client's request.	
	Thickness	3mm, 4mm or 6mm	
Fire Class		excellent fireproof resistance for A2 Class.	
Application scope		Metal Curtain Wall, Interior wall integrated panel,	
		Public building's over length strip (≥6m) for ceiling, Functional special panels(Engine room, Operating theatre), special panel for internal cabins of boat.	







## Good smoothness, small rate of wind pressure change.



3A panel with multi composite layer has wonderful strength weight ratio. Uniform distribution of the middle layer's even arrangement hollow and trapezoid column overhanging block makes 3A panel in biggest stress with lightest weight. Its wind resistance performance is much better than aluminum composite panel and solid aluminum panel.



## Super strong corrosion resistance, perfect self-cleaning performance.



Based on  $\text{TiO}_2$  coating's super strong corrosion resistance and coating adhesive force, 3A panel has great advantages on pollution resistance and weather resistance which can resist the acid rain, air pollution and UV.

3A panel adopt special Ti coating technology and preserve the color over 30 years.







## **Various shapes, Meet the beauty of individuality.**

Cut, bore & mill, curve at random as per client's request to fully express the idea of designer.



## **Superior fire resistance, meet the requirement of fire protection.**

Main material of 3A is non-combustible, completely meet fire proof standard for curtain wall.



## **Light weight, Easy to process and install.**

Easy to transport for its light weight, simple installation method, convenient and efficient.

Apparently shorten the project period without limited by climate, season and environment.

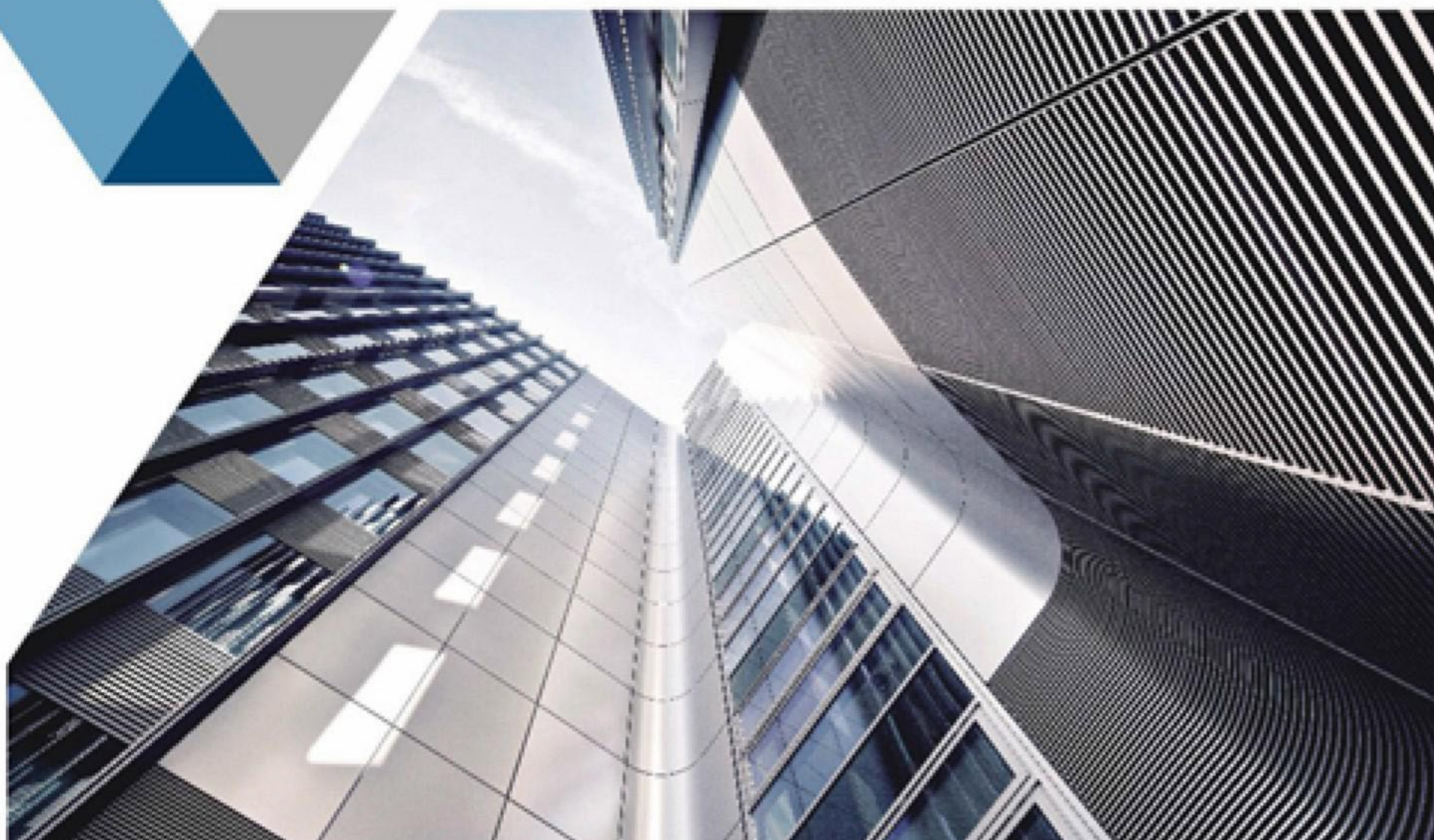




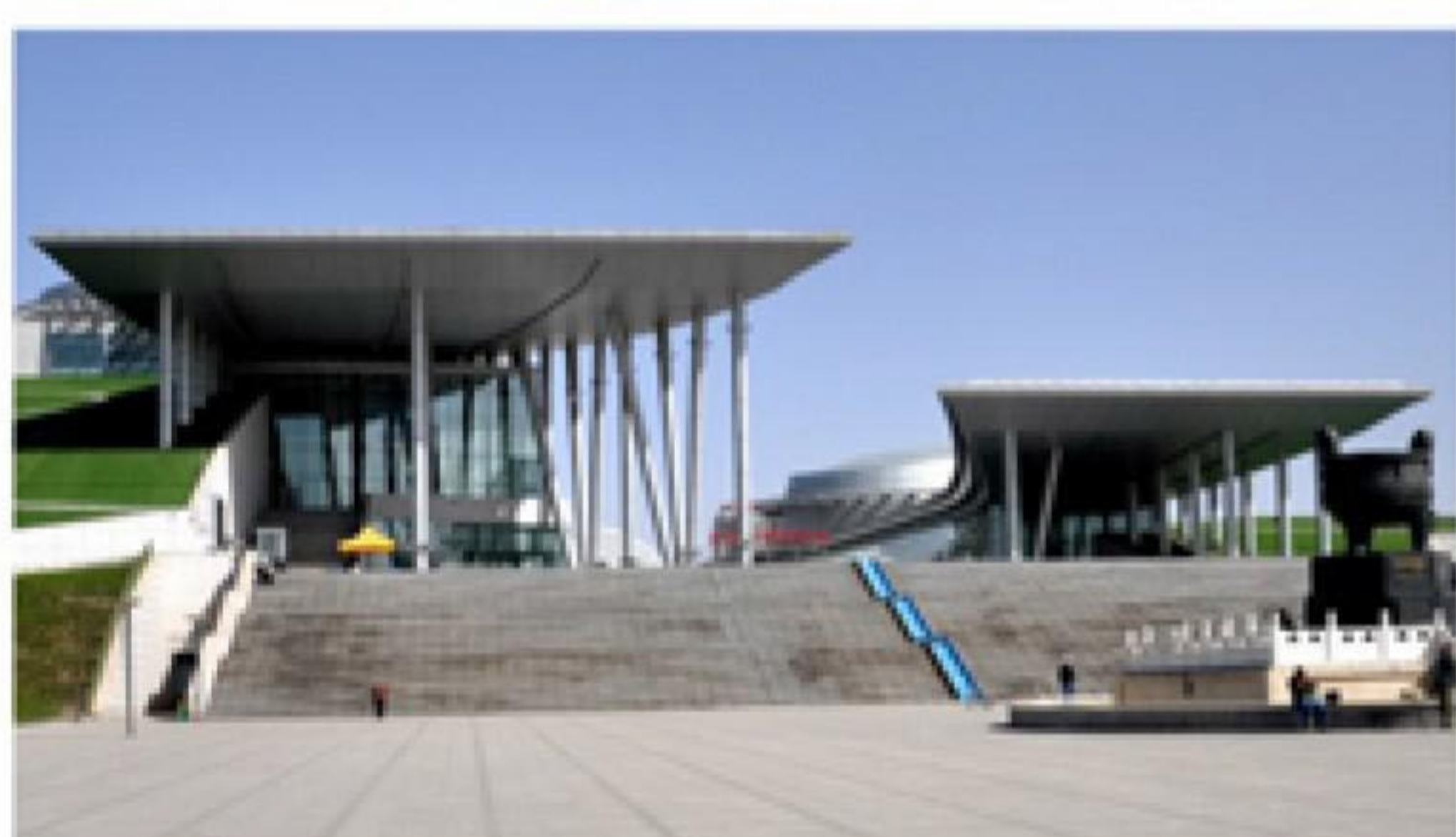
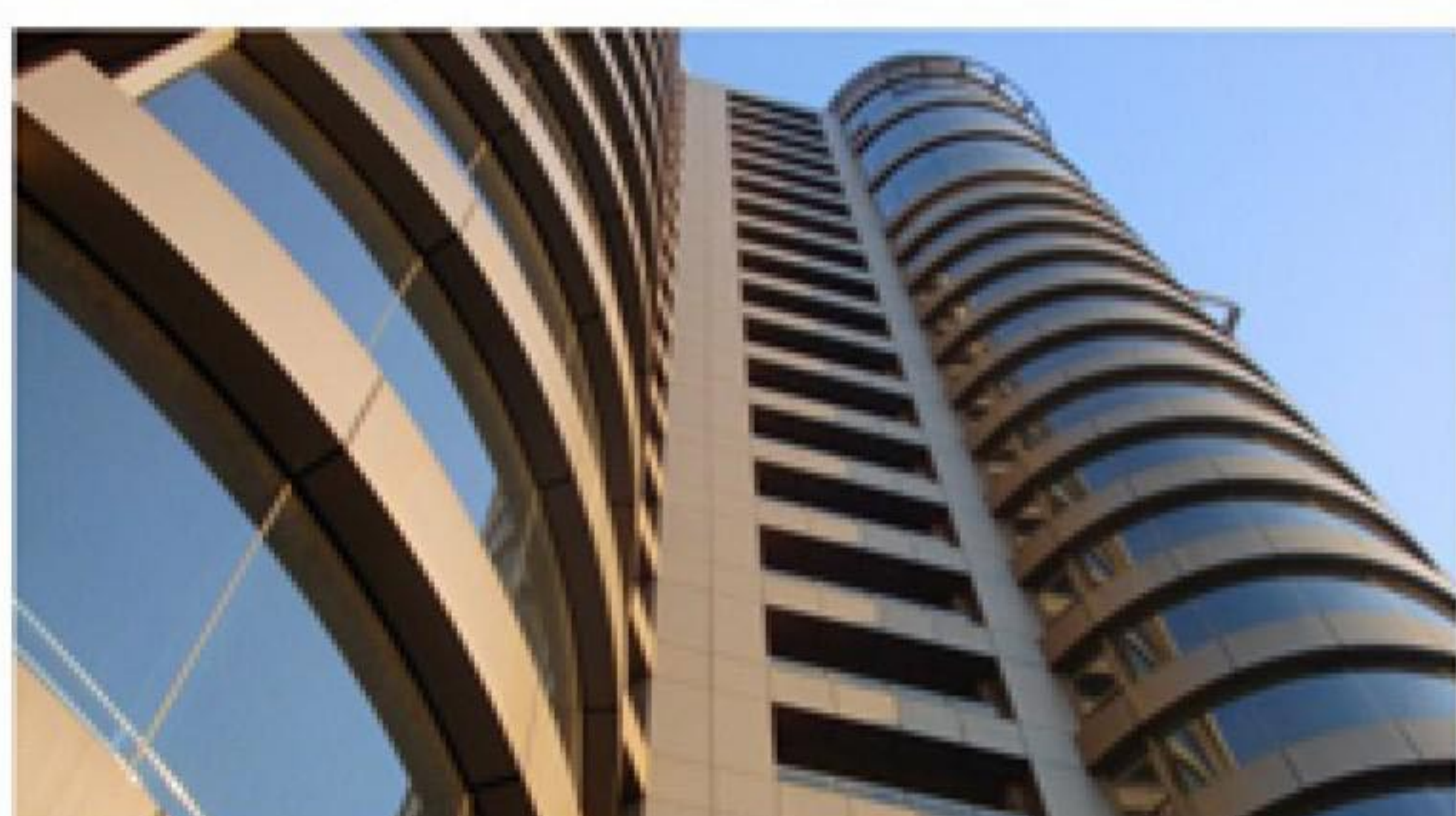
# The comparison of characteristics between 3A panel and other metallic cladding materials

Performance Index	Aluminum Composite Panel	Aluminum Solid panel	Aluminum honeycomb panel	3A panel
Structure type	Sandwich structure, The LDPE middle layer compounded with top and bottom alloy aluminum sheet.	All aluminum structure.	All aluminum structure.	All aluminum structure.
Wind load resistance deformation rate	★★★★ Small	★★★ Big	★★★★★ Small	★★★★★ Small
Structure safety	★★★ High rigidity-to-weight ratio.	★★★★★ High structure strength.	★★★★ High rigidity-to-weight ratio.	★★★★★ High peeling strength by continuous polymer adhesive technology, same rigidity-to-weight ratio as Aluminum honeycomb panel.
Appearance index	★★★★★ Perfect surface evenness, continuity roller coating technology, uniform color.	★★★ Poor surface evenness, difficult to control color difference by spraying technology.	★★★★ Perfect surface evenness, roller coating technology for top surface.	★★★★★ Wonderful surface evenness, continuous roller coating technology makes the panel with uniform gloss, small color difference, achieving better coating effect than spraying process.
Fire resistance	★★ Fire rated grade B, limited for high building. According to current production technology, enhancing fire resistance grade may lower the peeling strength.	★★★★★ Fire rated grade A2, non combustible.	★★★★ Fire rated grade A2, non combustible. Solvent-based adhesive technology reduces fire rated performance.	★★★★★ Fire rated grade A2, non combustible.
Environmental protection index	★★★★ Energy conservation, environmental protection, Recyclable.	★★★★ Recyclable, high cost, low cost performance.	★★★ Adhesive technology, Solvent evaporation.	★★★★★ Save materials, energy conservation, environmental protection.
Proceed	★★★★ High production efficiency , perfect processing performance.	★ Multiple weld spots, high labor cost, low production efficiency, "double high" products.	★★★ Low production efficiency, poor strength of riveting at edge bending corner, easy to collapse.	★★★★★ High production efficiency, better processing performance than ACP.
Others	Export code list alone, belong to the national support new material product.			Combine a variety of advantages of building's new generation product.





3A panel is widely used in airport, high-speed railway, metro, light rail, museum, archives center, conference and exhibition center, commercial complexes, high-grade office buildings, hotels and other public buildings and commercial buildings for high-end metal wall decoration.





The background of the page is a collage of architectural images. On the left, a long, brightly lit hallway with wooden walls and a patterned carpet leads into the distance. On the right, a modern interior space features large, curved, copper-colored pillars and a ceiling with recessed lighting. A large, dark blue diagonal band cuts across the center of the page, separating the two architectural scenes. The ALUTILE logo is positioned in the upper left corner, with the text 'SINCE 1995' below it.

**ALUTILE®**  
SINCE 1995

## **3A Panel** (Aluminum Core Panel)

All-metal material,  
the best choice of high-end fabricated wall panel.

TiO<sub>2</sub> Coating  
30 Years  
Color Preserving

Full Dimension  
Structure  
50 years warranty





## **3A Panel Define Good Curtain Wall Panel**

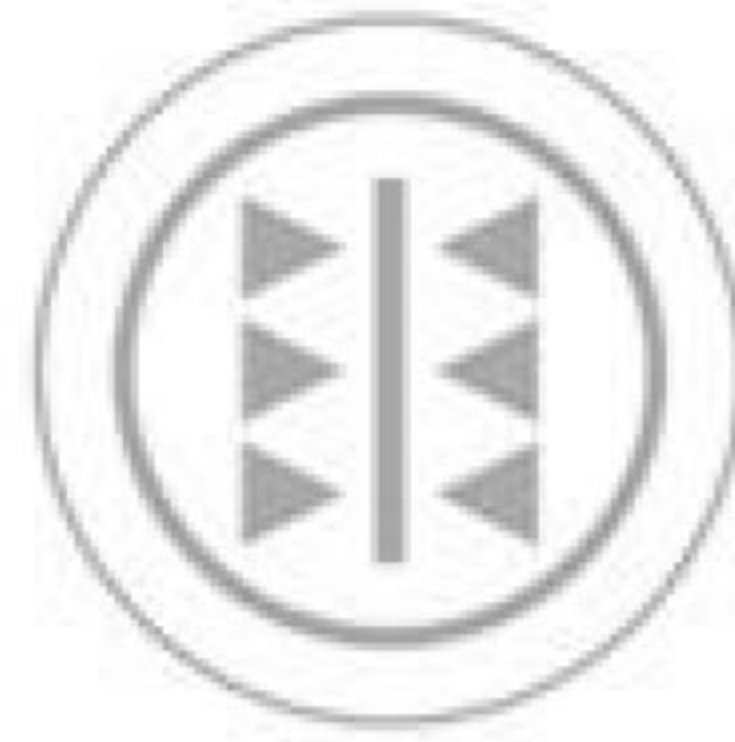
Although compounded by three layers of aluminum sheet, over large panel surface is still with perfect evenness. Splicing between panels is natural and smooth, varied decorative face shows multiple wall expression effect, 3A panel possess the advantages of light weight, high strength, fire-resistance and moisture-resistance, pollution-free, prolonged wear-resisting, fast splicing, easy to maintain etc. Especially its middle layer uses concave-convex empty drum structure to decrease thermal conductivity rate and increase a certain thermal bridge partition and sound insulation effect. It's favorite first choice for all kinds of public buildings and commercial buildings interior decoration materials.





## **Environmental Protection, Zero Formaldehyde Release**

Zero release of toxicity, such as formaldehyde, benzene, VOC and etc., 3A panel's production meets the national environmental standards.



## **Stable Structure, High Evenness**

3A panel has a high rigidity-to-weight ratio due to its multilayer metal structure, which makes it more stable and almost unbreakable. It could keep evenness even though the panel size is overlarge.



## **High Impact Resistance & Durable Wear Resistance**

The shape of 3A panel's middle layer is hollow Ladder column, distributed evenly makes the panel could bear the highest pressure with the lightest weight. The impact and wear resistance is also much better than traditional wall decoration panel.







### **Beautiful Decoration, Good Integrity**

3A panel has rich colors, especially the natural wood grain color is available for different places and meet the interior decoration requirement.



### **Mildew Resistance & Antiseptic, Anti- radiation, Anti-static**

The full metal structure of 3A panels can avoid the germ and mould, reduce the bacterial infections, and avoid the hurt caused by radiation and electrostatic.



### **Superior Fire-resistance Performance, In Accordance with the Fire Protection**

The main materials of 3A panel are non-combustible material and fully meet the request of fire protection.



### **Simple Fabrication, Fast installation**

It's easy to move and the superior fabrication performance creates various styles. Industrial fabrication and fast installation, it can save labor, time and money by quick assembling at construction site.



### **Easy wash and maintain**

Perfect self-cleaning, wash by the neutral detergent or water. Keep the panel clean as new for long time.





Airport, high-speed railway, metro, light rail, museums and archives, conference and exhibition center, commercial complexes, high-grade office buildings, hotels and other buildings interior wall decoration and over length strip ( $\geq 6\text{m}$ ) for ceiling;



First choice for functional-requirement machine room, medical operating room, precise instrument room, database's interior and exterior decoration;  
Special decoration for High-speed railway's carriage, yacht, ship's interior decoration.





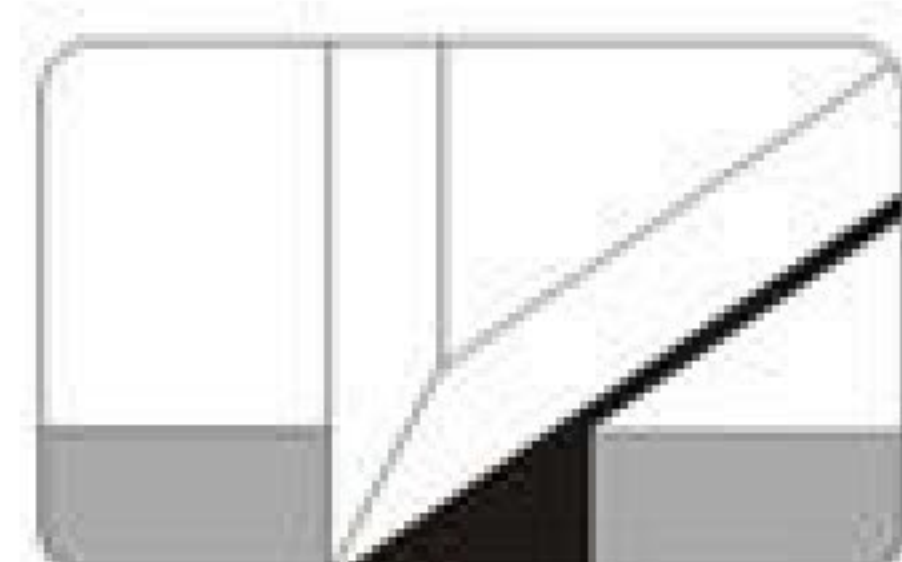
## Processing Method

Simply used processing tools for timber or metal to cut, saw, mill, fold, bend into arc & reverse arc, small radius corner, inside and outside corner, right angle etc. various shape.



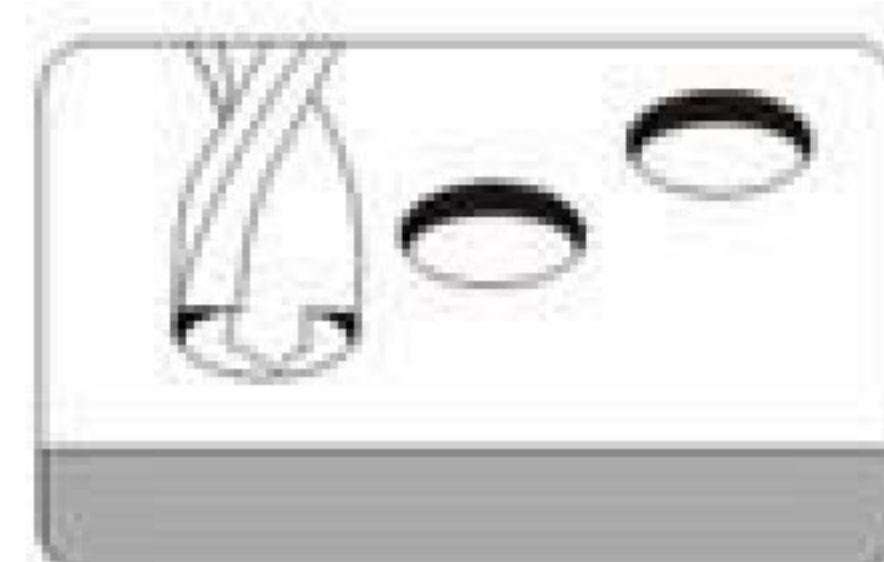
### Cutting

3A panel can be cut into various shapes with water jet propeller, profiling milling machine, shaping saw and curving saw.



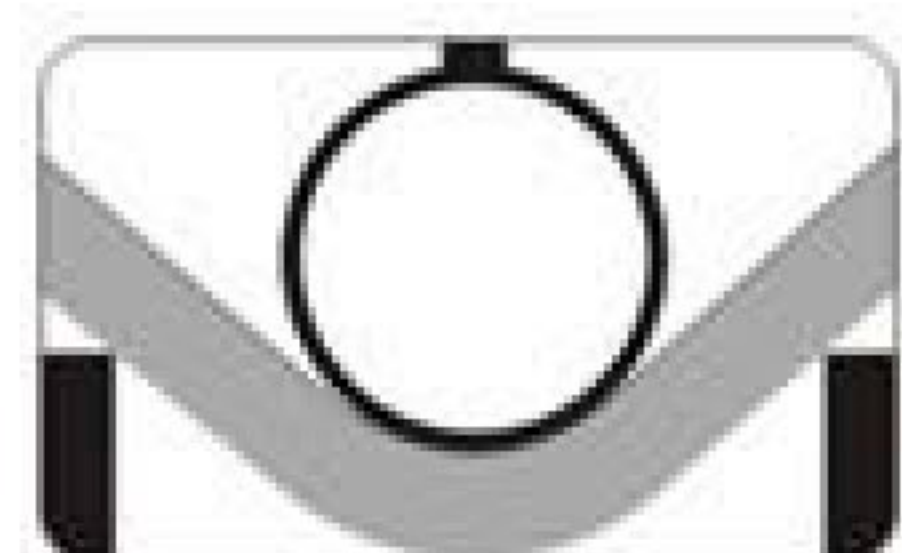
### Boring-milling

Through boring- milling processing tools to complete milling, drilling, boring etc. Please note that pad is necessary for all tools.



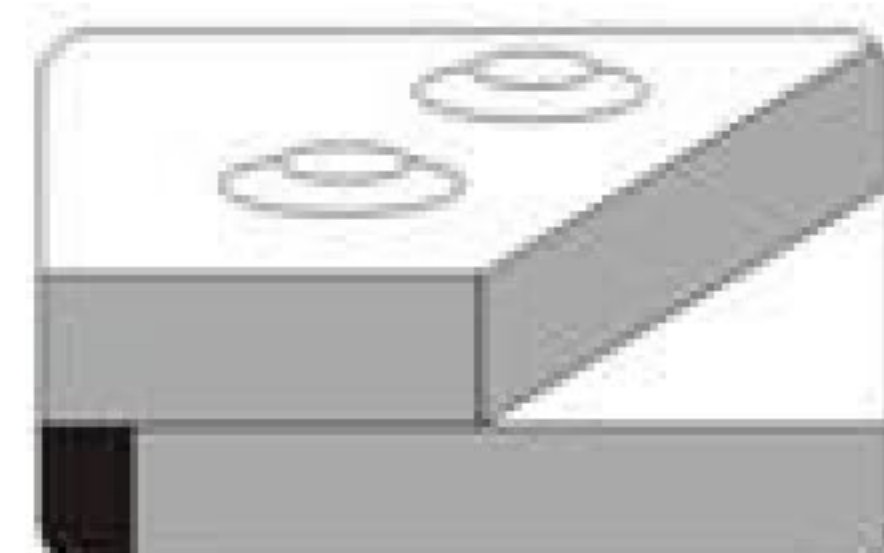
### Drilling

Panel can be drilled by twist drill which usually used for drilling aluminum and plastic.



### Bending

Through bending desk or brake-press lathes to finish, bending. Inner diameter can be about 10 times of panel thickness.



### Riveting

Use ordinary equipment, rivet or blind rivet to finish riveting. Need to consider thermal expansion when used for outdoors.

#### Our Certificates



CE Certificate



SGS Test Report



Intertek  
Test Report



ASTM  
Standard Test



BS Standard Test



FHWA



ISO9001/ISO14001  
System Certificate



International  
Astronautical  
Federation

**JIANGXI ALUTILE BUILDING MATERIALS CO., LTD.**

[www.alutile.com](http://www.alutile.com)

Add: No.1155, 2nd Chuangxin Road, State High-Tech. Development Zone, Nanchang, Jiangxi, China. PC: 330096

Tel: +86-791-88162180/88161917/88162161 Fax: +86-791-88162165 E-mail: [alutile@alutile.com](mailto:alutile@alutile.com); [alutilechina@126.com](mailto:alutilechina@126.com)