天安新材全资控股
股票代码：603725.SH

# HPL耐火板·浙江瑞欣REXIN

# CARBON FIBER OUTDOOR WALL PANEL

## 瑞欣碳纤幕墙板

# 目录

# CONTENTS

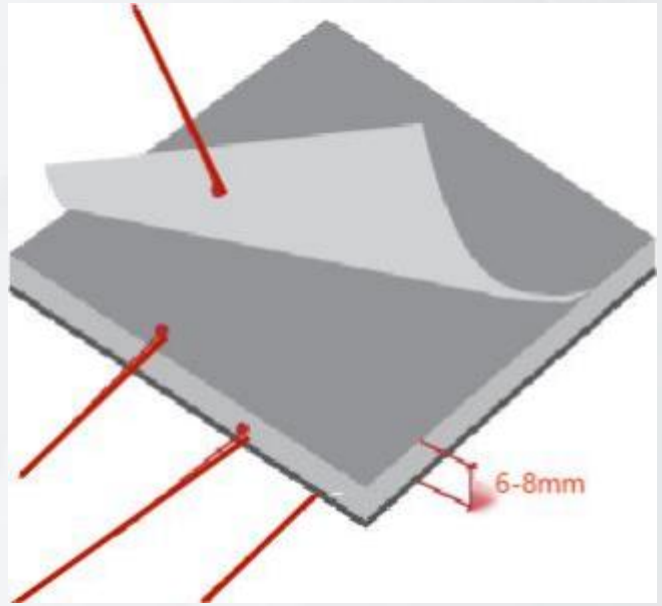
# PART ONE

## Product introduction

第一章

# CARBON FIBER OUTDOOR WALL PANEl Introduction

CARBON FIBER OUTDOOR WALL PANEl is made from a **weather-resistant decorative layer** and a **non-combustible carbon fiber core** through high temperature and high-pressure processing. The surface material undergoes special treatment, offering excellent weather resistance. It is an **A-grade non-combustible**, **easy-to-clean**, **convenient-to-install** and **eco-friendly** material designed for exterior curtain walls. This material is suitable for exterior use in densely populated areas such as shopping malls, office buildings, schools, hospitals, stations, and airports.



# CARBON FIBER OUTDOOR WALL PANEL Features

### Excellent weather resistance

This product offers superior weather resistance, with no effect on the surface or core material from sunlight, rain (even acid rain), or moisture. It remains weather-resistant for up to 15 years.

### A-grade fire resistance

National A-grade certification for non-combustible building materials,
providing a safe and reliable decorative space

### Thermal dimensional stability

This product uses thermosetting resin material, which can resist extreme temperature fluctuations. Even when the temperature rapidly changes from -20°C to 80°C, the appearance and stability of the panel remain unaffected.

### Waterproof and moisture-resistant

This product is unaffected by moisture and will not mold or rot due to climatic conditions.

### UV-resistant

This product has excellent protection against ultraviolet rays from sunlight. This protection comes from its weather-resistant layer, which blocks over 90% of UV radiation.

# CARBON FIBER OUTDOOR WALL PANEL Features

## Excellent impact resistance

With the use of a carbon fiber core, the panel offers high impact resistance.

## Easy installation

It can be installed using either dry hanging or rivet methods.


## Safety

In a fire, it can remain stable for an extended period without melting, dripping, or exploding.

## Easy to clean

The surface of the product is highly dense, making it difficult for dust to adhere. Any dust deposits can be easily washed away with water.

# CARBON FIBER OUTDOOR WALL PANEL Performance testing

| | Item | Unit | Standard | Test Value | Test Method |
|---|---|---|---|---|---|
| 1 | Color fastness to Light | Rating | Not lower than Grade 4 | 5级 | GB/T 17657 |
| 2 | Scratch Resistance | N | Not lower than Grade 3 (Load: ≥2.0N) | 3.0N | GB/T 17657 |
| 3 | Cold and Heat Impact | - | No surface change | No deformation or cracks | -20℃-80℃，Cycle test 30 times，GB/T2432 |
| 4 | Immersion in Boiling water | - | No delamination or bubble | No delamination or bubble | 100℃Boiling water immersion for 4 hours |
| 5 | Dry Heat Resistance | Rating | Not lower than Grade 4： slight gloss change | no change | 180℃ 20分钟 |
| 6 | Abrasion Resistance | Rating | Not lower than Grade 3 | Grade 4, 1200 revolutions | GB/T 17657 |
| 7 | Stain Resistance | Rating | Not lower than Grade 4 | Grade 4, slight gloss change | GB/T 17657 |
| 8 | Impact Resistance | mm | Dent diameter ≤10mm, no surface cracking | 8mm | GB/T 17657 Impact height 100mm |
| 9 | Combustion Performance | - | Reach A2 Grade | A2 | GB 8624 |

# PART TWO

## Product installation method

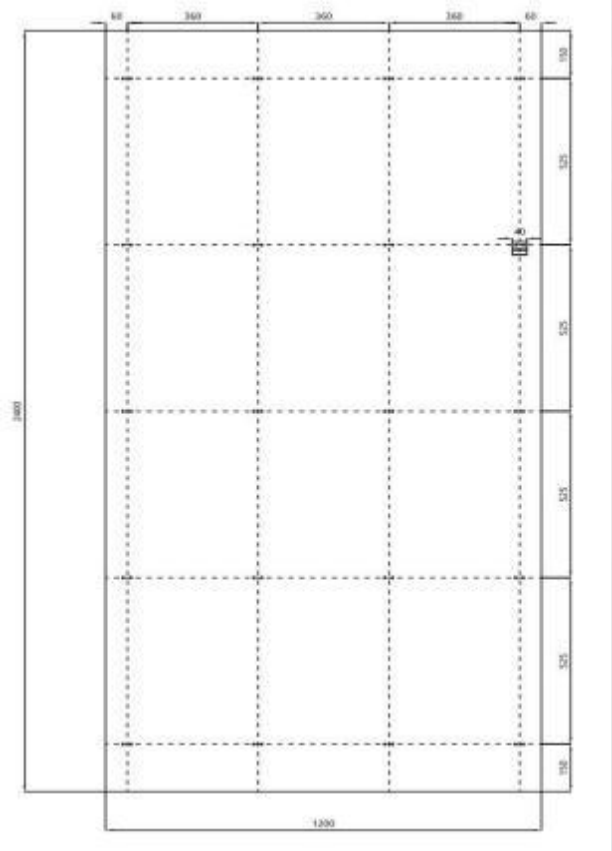
第一章

# Hanging Installation

1. Clean the wall surface
2. Measure the specific dimensions of the wall on site
3. Match the measurements with the layout drawing
4. Verify the dimensions and check for errors
5. Adjust the size of the panels
6. According to the layout drawing, place all vertical lines with the adjusted sizes
7. Mark the position points for fixing each L-shaped keel
8. Install the L-shaped corner brackets
9. Secure the vertical C-shaped keel
10. Secure the horizontal bracing keel
11. Install adjustable and standard clips on the panels
12. Install the panels

# CARBON FIBER OUTDOOR WALL PANEL Hanging Installation

Nuts are pre-embedded on the back of the product for mounting clips (can be embedded according to the hole positions provided by the customer), allowing for **quick and easy on-site installation**. The company can provide a full set of installation accessories.



# Hanging 8mm PANEL Installation

1、**Vertical Keel Installation:** The vertical keel can use professional C-shaped aluminum keel or aluminum square tube keel (25*38*1.5mm), galvanized square tube keel (30*40*1.5mm), arranged vertically and firmly connected to the wall. The connecting pieces use L-shaped angle brackets, fixed on both sides. The distance between angle brackets is 400mm, and vertical keels are arranged with 400mm spacing. The keels must be aligned vertically, and the keels must be kept on the same plane.

2、**Horizontal Keel Installation:** Use professional resin panels to dry hang aluminum keels, arrange the horizontal keels at a spacing of about 500mm, keep the horizontal keels horizontal, and the horizontal error should not exceed 1mm. The bottom and top horizontal keels should be installed no more than 150mm from the edge of the board. Use screws to fix the horizontal keels to the vertical keels, and the connection should be firm and not loose.

3、Brackets are divided into **adjustable** and **non-adjustable** types. The top row of each panel should use **adjustable** brackets to adjust the height of the panels, while the rest use **non-adjustable** brackets. The dry-hanging bracket installation distance is about 350mm, starting 30mm from the edge of the panel.

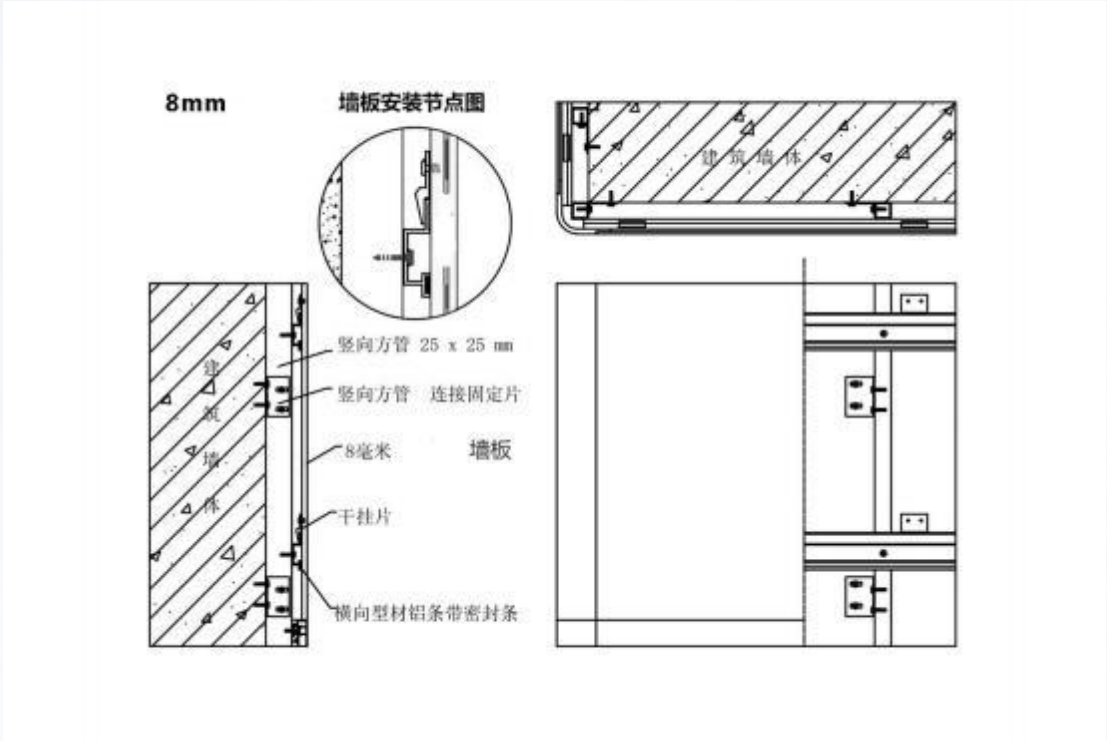
4、A **10mm gap** should be left between the panels. Joints can be flat joints, chamfered flat joints, or with clamping strips.

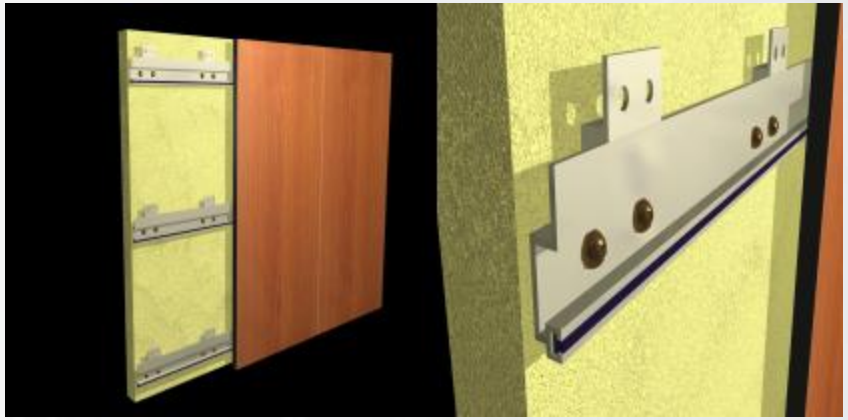
5、Select suitable skirting boards, light strips, lighting belts, equipment belts, and top moldings to complete the overall decoration.

6、Maintain vertical ventilation from top to bottom on the wall for dry hanging.

7、 Do not insert sealing strips into the horizontal keel before adjusting the height to avoid difficulty in adjustment or removal.

# Hanging installation point

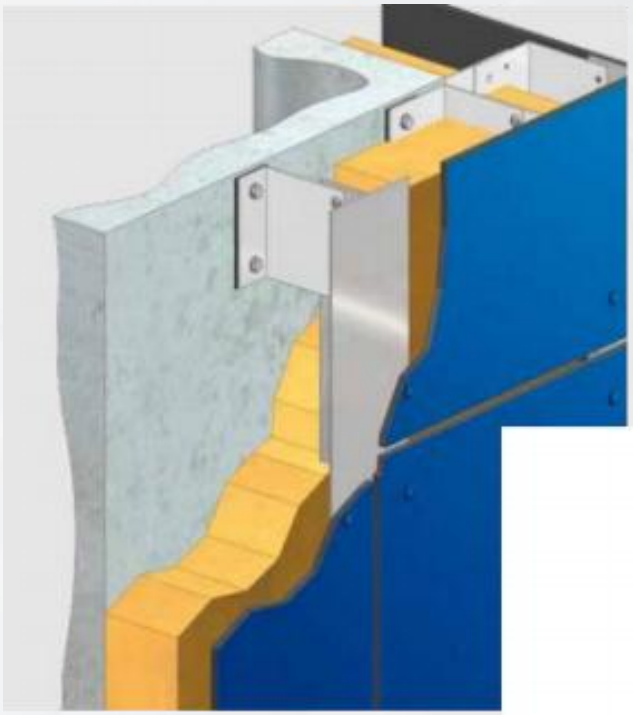


# Hanging installation point

# CARBON FIBER OUTDOOR WALL PANEL
## Exterior Visible Rivet Installation

The panels with a minimum thickness of 6mm can be installed on a metal support frame using surface-painted decorative rivets (rivets can be purchased from third-party manufacturers or suppliers). The frame is best made of longitudinally distributed aluminum alloy profiles, fixed to the main structure of the building using dedicated corner brackets.



# CARBON FIBER OUTDOOR WALL PANEL
## Exterior Visible Rivet Installation

### Cavity Depth and Ventilation

To ensure continuous ventilation behind the panel, it is recommended that the distance between the panel and the insulation layer or wall be between 20 to 50 mm, allowing air to flow freely between the ventilation inlets and outlets behind the panel. The area of ventilation inlets and outlets should be at least 50 square centimeters per linear meter of curtain wall and should cover the entire outer wall. The cavity depth and the arrangement of ventilation inlets and outlets must comply with applicable building standards, regulations, and certifications.

### Support Frame

The panel must be installed on a wooden or aluminum support frame with sufficient strength and durability. The quality and treatment of the support frame must comply with applicable building standards, regulations, and certifications.

# Exterior Visible Rivet Installation Details

1.Rivet diameter 5 mm.

2.Rivet head diameter 16 mm.

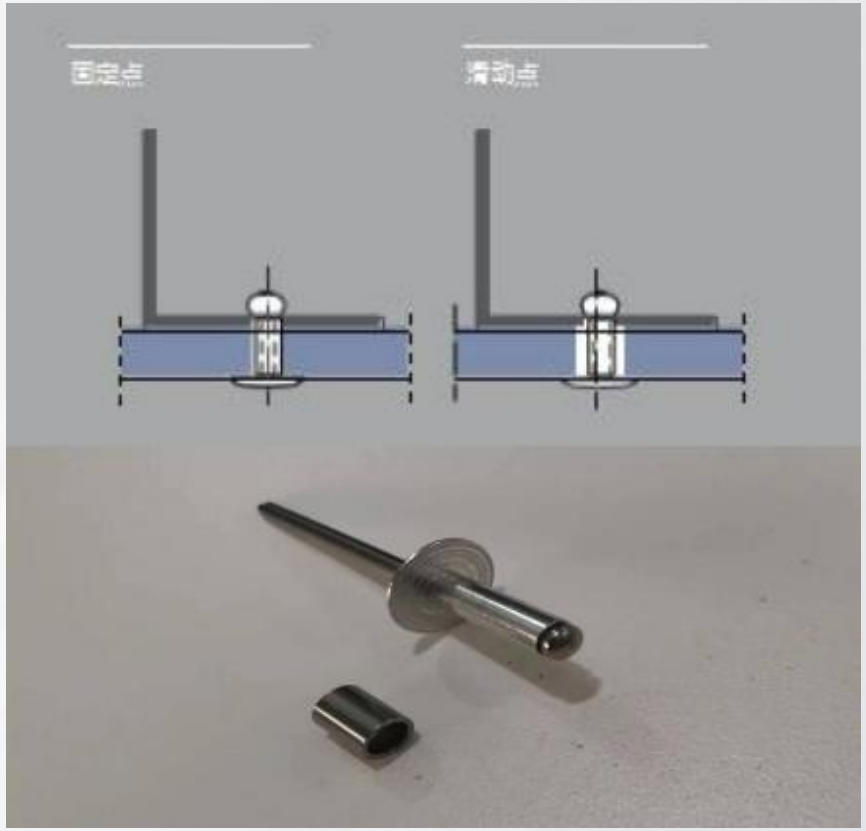
3.Fixed point hole diameter in the panel 5.1 mm.

4.Sliding point hole diameter in the panel 10 mm.

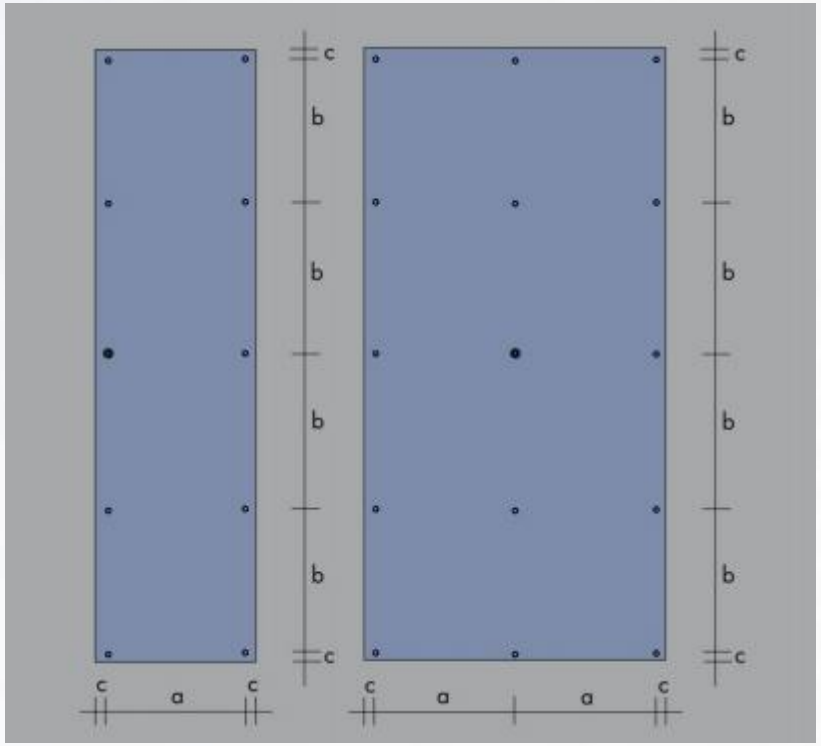
5.Use a special auxiliary tool to keep the rivet head 0.3 mm away from the panel surface.

6.The rivet must always be in the center of the panel hole.

7.To fix the panel position, each panel must have a fixed point in the center of the panel, and all other installation points should be sliding points.



# Exterior Visible Rivet Installation Details




a = Horizontal installation distance

b = Vertical installation distance

c = Edge distance

e = Panel center fixed point

o = Sliding point

# Exterior Visible Rivet Installation Details

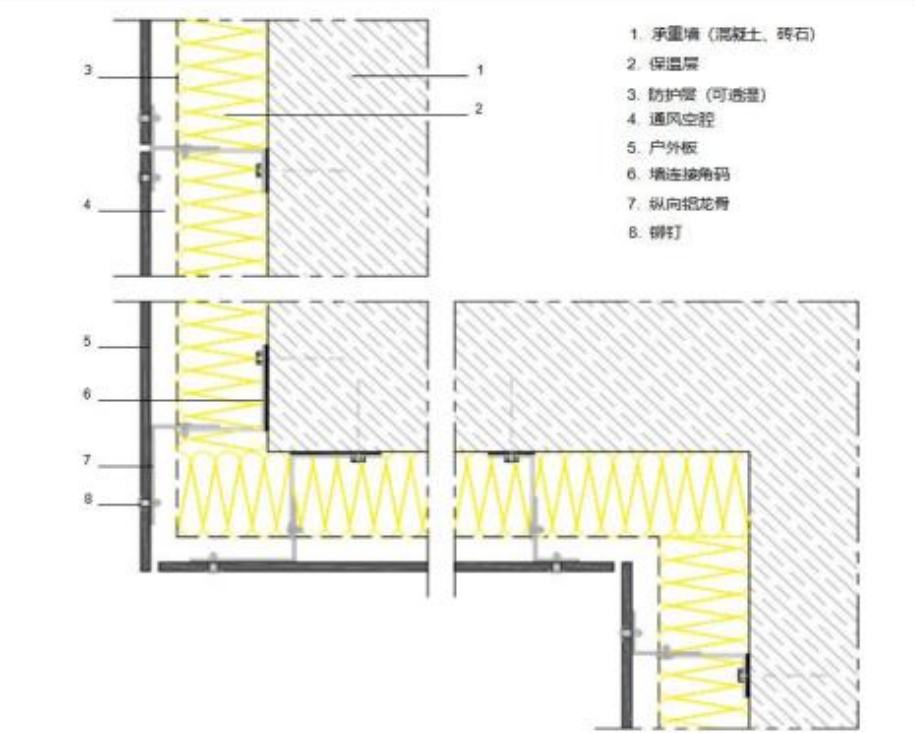
installation technical details
1、Panel thickness (mm): 6, 8
2、Maximum panel size (mm): 1220 x 2440, 1220 x 3050
3、Joint width (mm): 10 (Joint width can be increased according to applicable building standards, regulations, or certifications.)
4、Distance from hole center to panel edge: Minimum 20 mm, Maximum 10 x panel thickness

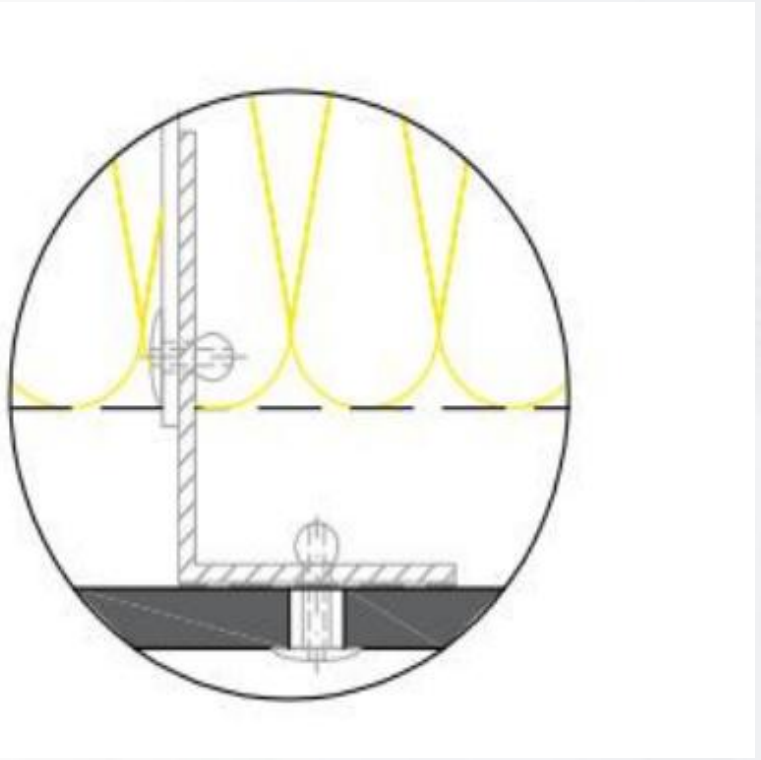
**Recommended maximum installation distance::**

**For boards of different thickness, the spacing between the keels and the fixing spacing of the rivets are also adjusted accordingly:**

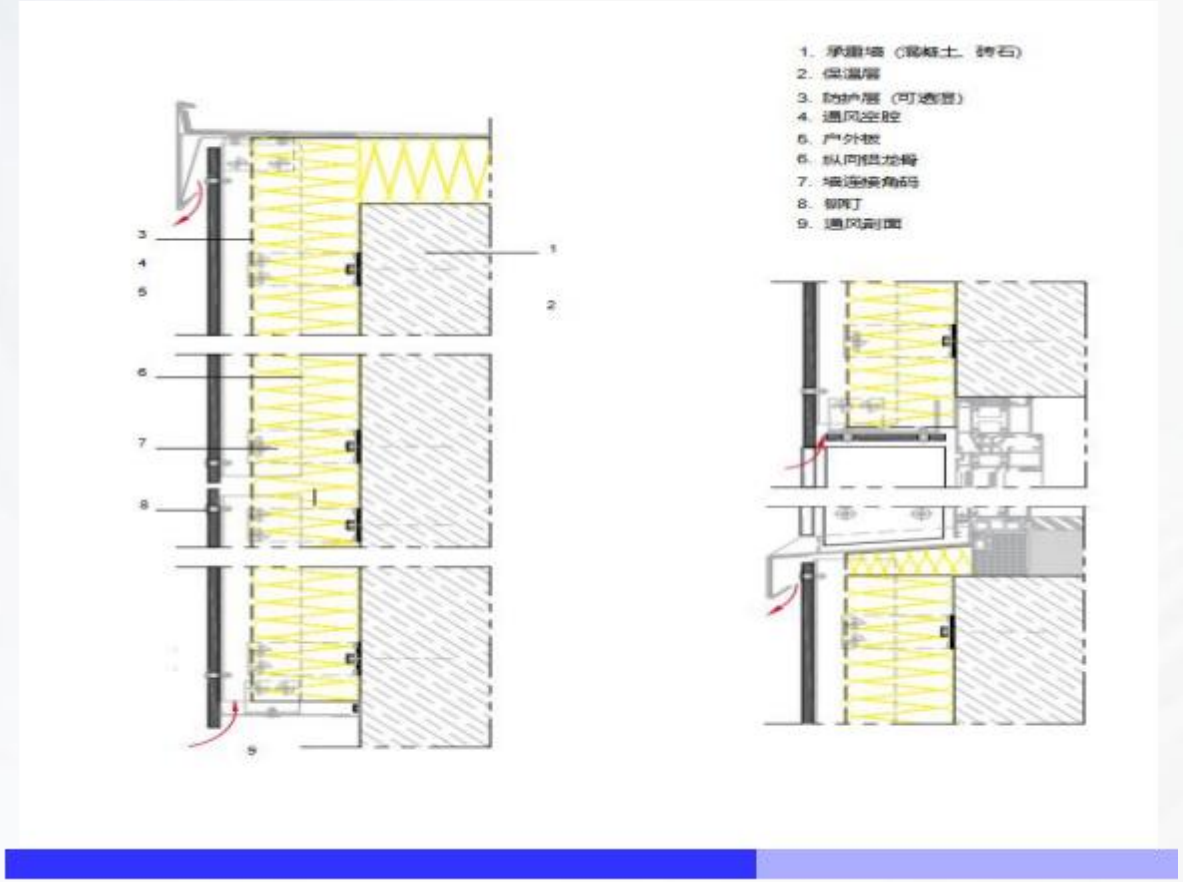
| | Panel thickness | Keel spacing | Rivet spacing | Remarks |
|---|---|---|---|---|
| 1 | 6mm | 400mm | 400mm | Each panel must have at least 3 supports in each direction. |
| 2 | 8mm | 600mm | 600mm | |

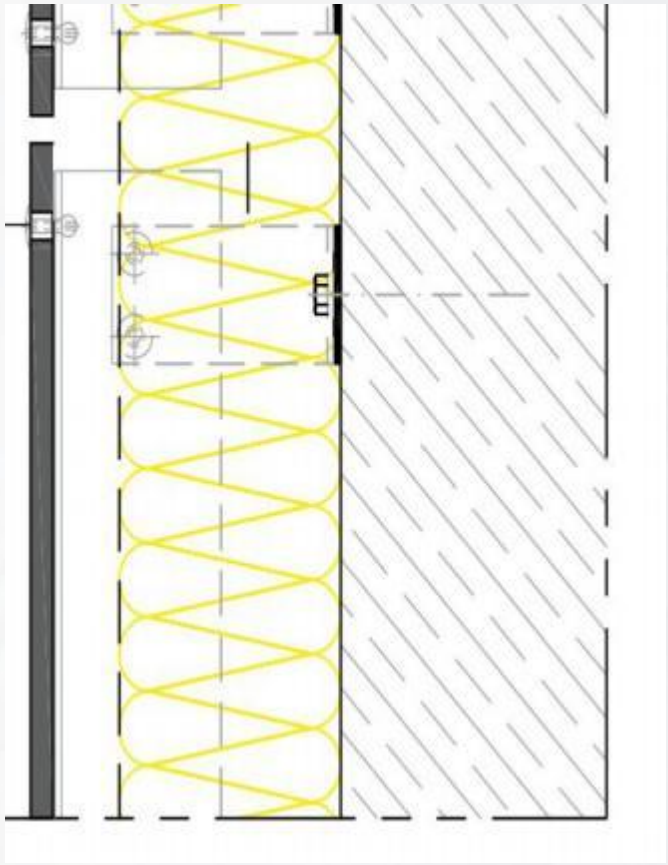
# Exterior Visible Rivet Installation Details (Cross Section)



# Exterior Visible Rivet Installation Details (Longitudinal Section)



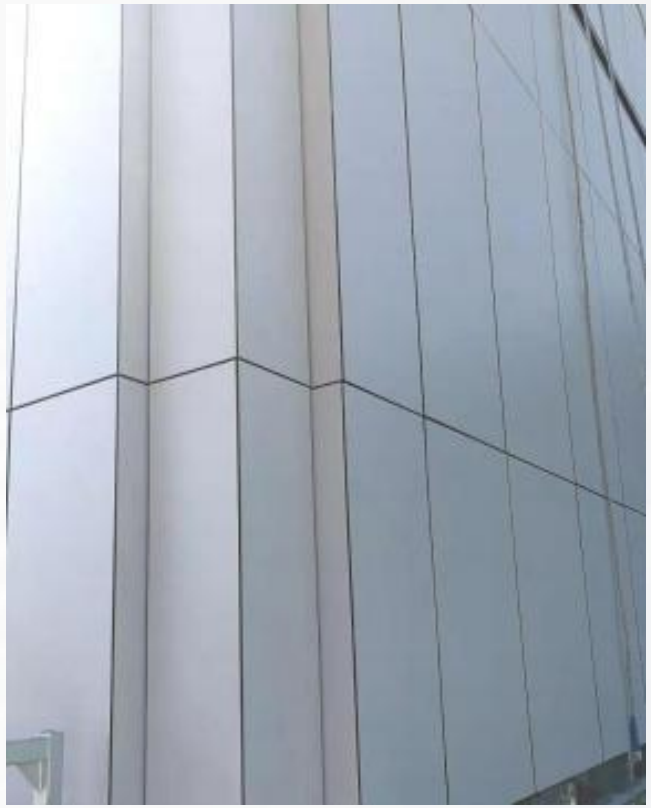



# PART THREE

## Product application

第一章

# Product application aera



- Airport exterior facade

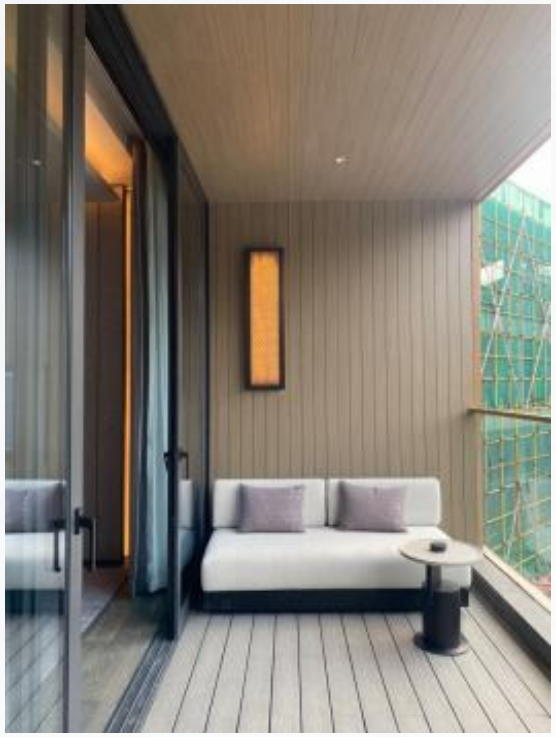
# Product application aera

- Villa exterior wall

# Product application aera

- School exterior facade

# Product application aera



- Balcony

# Product application aera

- Exterior terrace

# Product application aera

- Business building exterior facade

# Product application aera


- Hotel

# THANKS

www.tianan.group
www.rexinnet.com
电话：+86-21-52562626
传真：+86-21-52562622
E-mail：marketing@rexinnet.com

Facebook

Instagram

RexinWebsite