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1 Survey for Application Scenario

1. Survey for Application Scenario: Installation Materials



1. Cladded Steel Tile Roofing:

Referring to galvanized steel plate, aluminized steel plate, tinned steel plate or cold-rolled steel plate that has colored PE coating



Paste/Adhesive Material

1. Silicone Single Component Structure Adhesive



Referring to aluminum zinc steel plate that's processed with water-based acrylic ester adhesive at first, sintered colored sand as the surface course then, and acrylic resin as surface coating at last.



Paste/Adhesive Material

1. Silicone Single Component Structure Adhesive

3. Glazed Roofing Tile:

It's made from ore, and production completes after screening, crushing and hightemperature burning. Its surface is processed with a bright glaze coating.



Paste/Adhesive Material

1. Silicone Single Component Structure Adhesive

4. Cylinder-roofing and/or Pan-roofing Tile

One sort of materials made by mixture of sand, clay, etc.



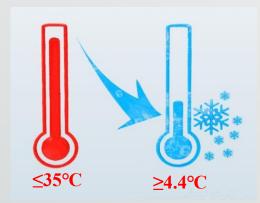
Paste/Adhesive Material

1. Silicone Single Component Structure Adhesive

1. Survey for Application Scenario: Installation Environment Confirmation



1. Ambient Temperature for Construction:



Ambient temperature exceeding the required: construction prohibited 4. Paste/Adhesive Surface Condition:



A large proportion of rust and stains found on the edge of cladded steel tile: construction prohibited

2. Ambient Condition for Construction:

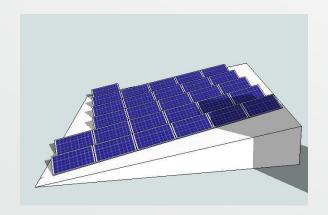


Rain, snow, thick fog and/or strong wind: construction prohibited



Due to years of disrepair and overgrown weeds, construction prohibited

3.. Construction Situation:



Installation area is shaded: installation prohibited



Partial subsidence or protrusion, severe loss of tiles: construction prohibited



Slope at installation areas exceeding the required: construction prohibited



Coating bumps, oil stains, dirt: construction prohibited

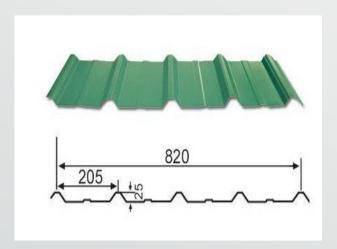


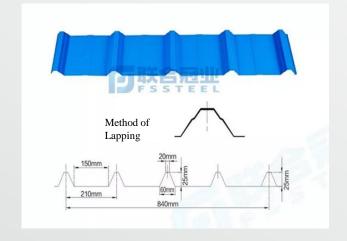
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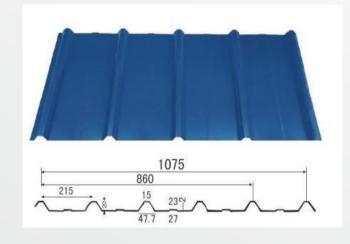
Industrial and Commercial Factory Building



2.1.1 Trapezoidal Cladded Steel Tile: Introduction to Cladded Steel Tile Type







Model: YX25-205-820

Model: YX25-210-840

Model: YX20-215-860

Cladded Steel Tile Type	Cladded Steel Tile Model	Cladded Steel Tile Length (mm)	Peak Spacing (mm)	Peak Height (mm)	Peak Width (mm)
	YX-25-205-820	820	205	25	20
Trapezoidal Cladded Steel Tile	YX-25-210-840	840	210	25	20
	YX20-215-860	860	215	20	15



2.1.2 Trapezoidal Cladded Steel Tile: Application of Structure Adhesive

1st Cleaning: Cladded Steel Tile Surface Cleaning



2nd Positioning: Positioning and Marking



3rd Applying: Applying Sealant



4th Placing: Placing Module



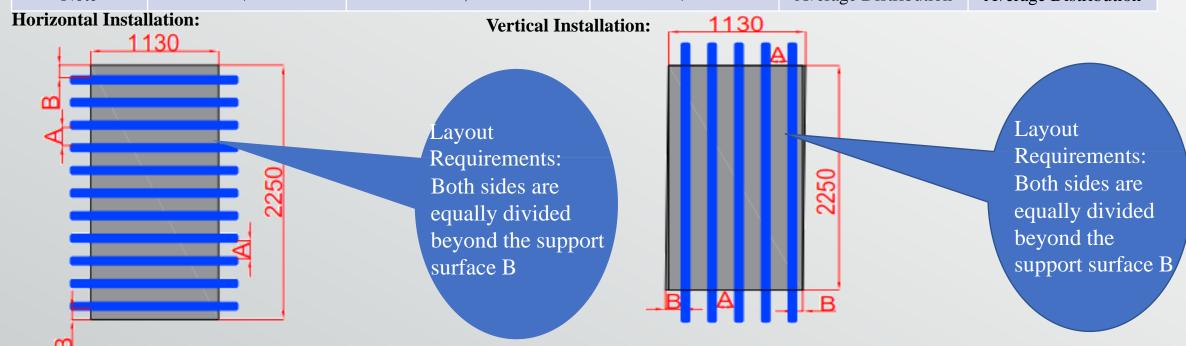
5th Rolling: Roller Brushing and Rolling





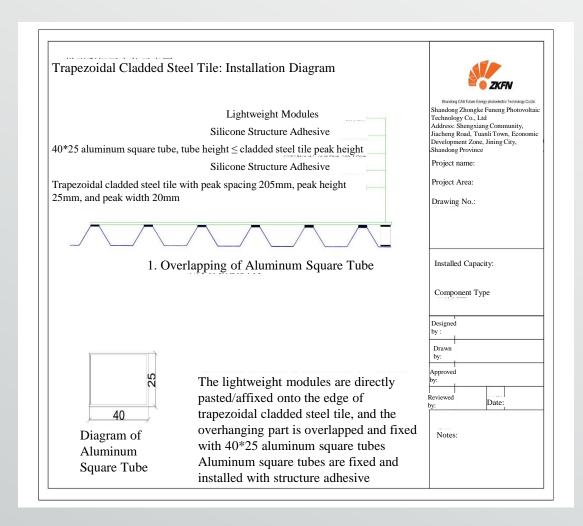
2.1.3 Trapezoidal Cladded Steel Tile: Installation Method

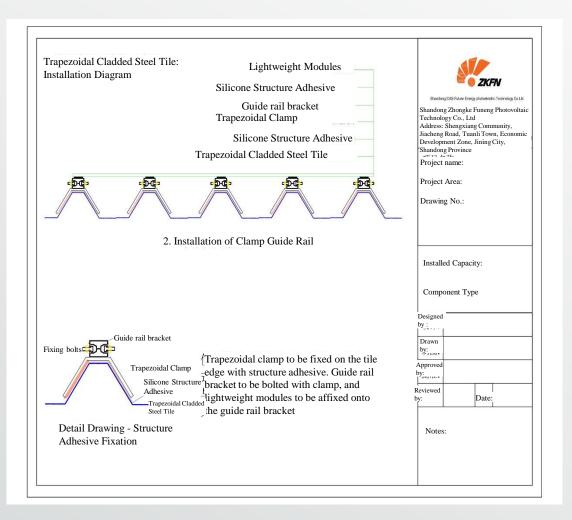
Mounting Arrangement	Cladded Steel Tile Quantity (PCS)	Length of Sealant to be Applied (Mm)	Peak Width (Mm)	Peak Spacing: A (Mm)	Distance to Edge: B (Mm)
Horizontal Installation	11	1130	≥15	≤205	≤100
Vertical Installation	5	2250	≥15	≤205	≤82.5
Note	/	/	/	Average Distribution	Average Distribution





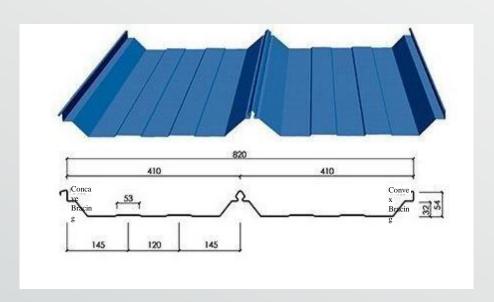
2.1.4 Trapezoidal Cladded Steel Tile: Installation Diagram

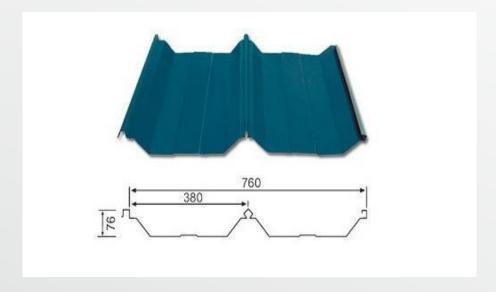






2.2.1 W-type Cladded Steel Tile: Type Introduction





Model: RSS820 Model: RSS760

Cladded Steel Tile Type	Cladded Steel Tile Model	Cladded Steel Tile Length (mm)	Peak Spacing (mm)	Peak Height (mm)	Bracing Width (mm)
	RSS820	820	410	54	10
W-shaped Cladded Steel Tile	RSS760	760	380	76	10



2.2.2 W-shaped Cladded Steel Tile: Application of Structure Adhesive

1st Cleaning: Cladded Steel Tile Surface Cleaning



2nd Positioning: Positioning and Marking



3rd Applying: Applying Sealant



4th Placing: Placing Module



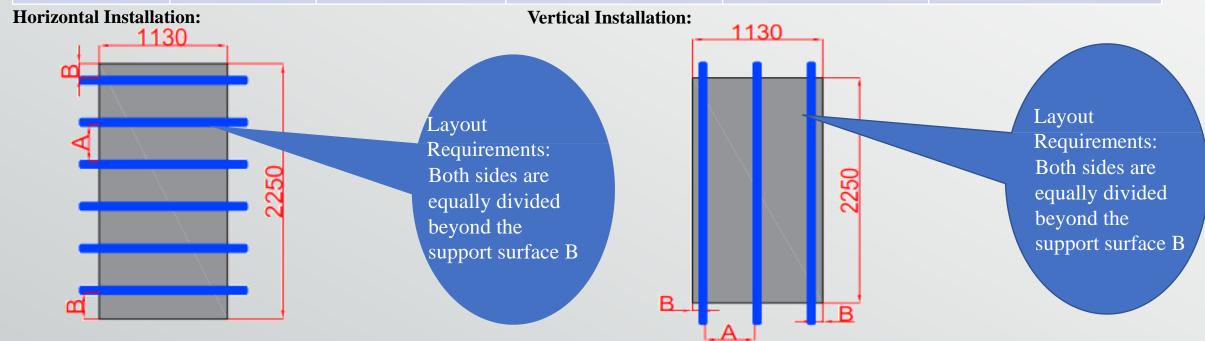
5th Rolling: Roller Brushing and Rolling





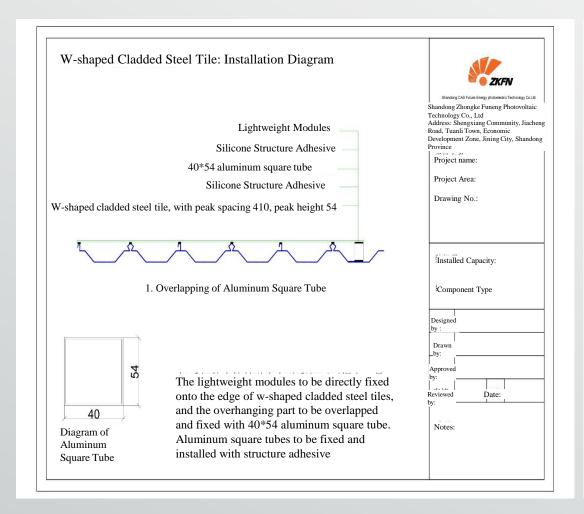
2.2.3 W-shaped Cladded Steel Tile: Installation Method

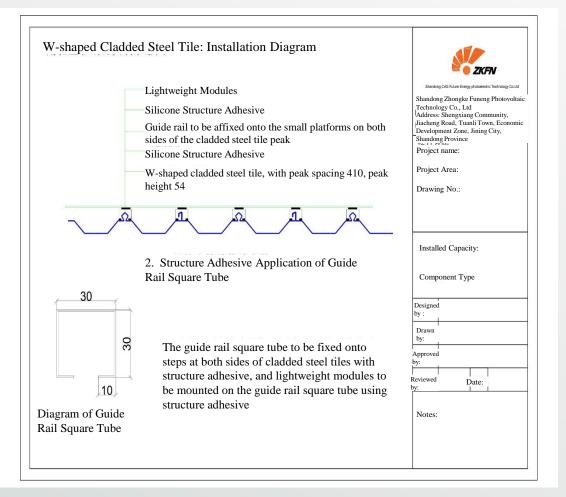
Mounting Arrangement	Nos of Tile Edge	Length of Sealant to be Applied (Mm)	Peak Width (Mm)	Peak Spacing: A (Mm)	Distance to Edge: B (Mm)
Horizontal Installation	6	1130	≥10	≤380	≤175
Vertical Installation	3	2250	≥10	≤380	≤180
Note	/	/	/	Average Distribution	Average Distribution





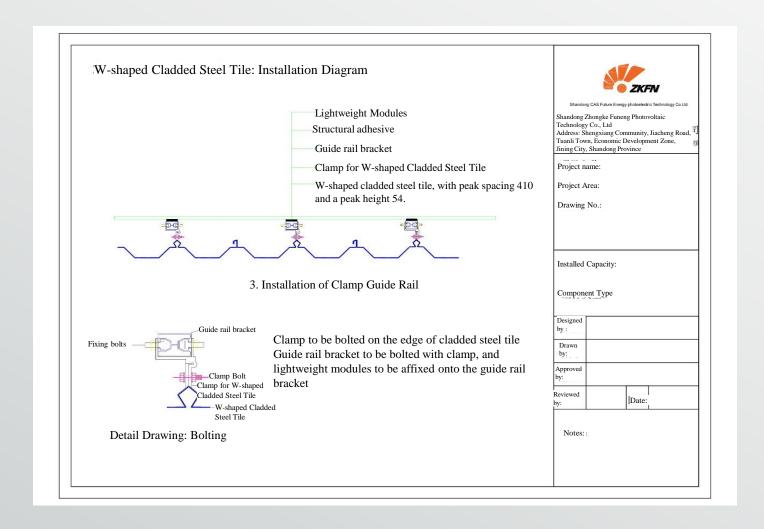
2.2.4 W-shaped Cladded Steel Tile: Installation Diagram







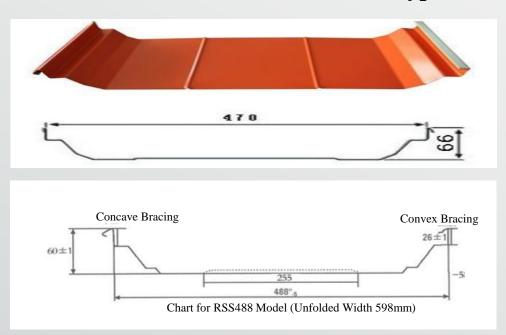
2.2.4 W-shaped Cladded Steel Tile: Installation Diagram

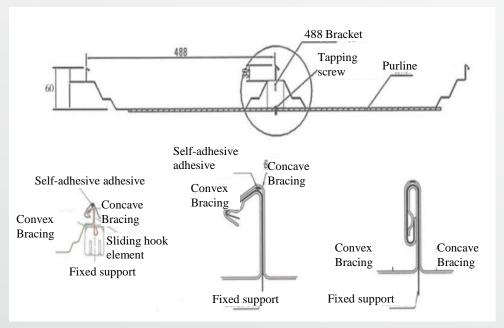


2. Industrial and Commercial Factory Building: Vertical Lockrand Cladded Steel Tile Roofing



2.3.1 Vertical Lockrand Cladded Steel Tile: Type Introduction





Model: RSS470

Model: RSS488

Cladded Steel Tile Type	Cladded Steel Tile Model	Cladded Steel Tile Length (mm)	Peak Spacing (mm)	Peak Height (mm)	Bracing Width (mm)
X	RSS470	470	470	66	3-6mm
Vertical Lockrand Cladded Steel Tile	RSS480	488	488	60	3-6mm

2. Industrial and Commercial Factory Building: Vertical Lockrand Cladded Steel Tile Roofing



2.3.2 Vertical Lockrand Cladded Steel Tile: Installation Method

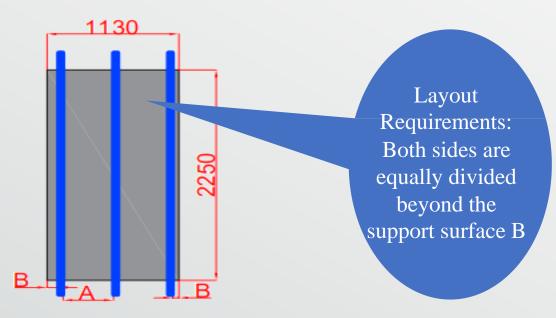
Mounting Arrangement	Nos of Tile Edge	Length of Sealant to be Applied (Mm)	Peak Width (Mm)	Peak Spacing: A (Mm)	Distance to Edge: B (Mm)
Horizontal Installation	5	1130	≥3	≤470	≤185
Vertical Installation	3	2250	≥3	≤470	≤93.5
Note	/	/	/	Average Distribution	Average Distribution

Horizontal Installation:

1130

Layout Requirements: Both sides are equally divided beyond the support surface B

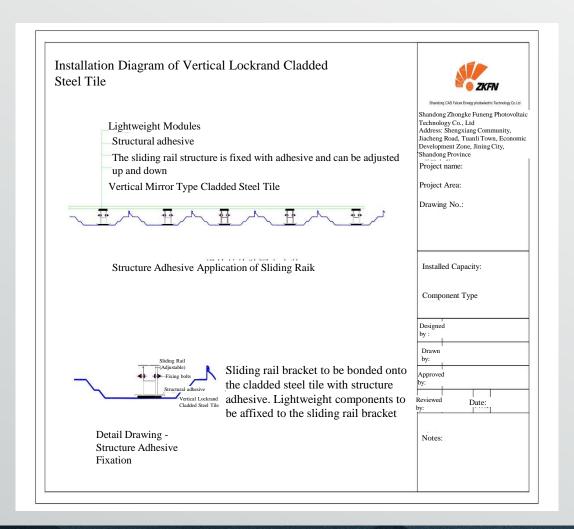
Vertical Installation:

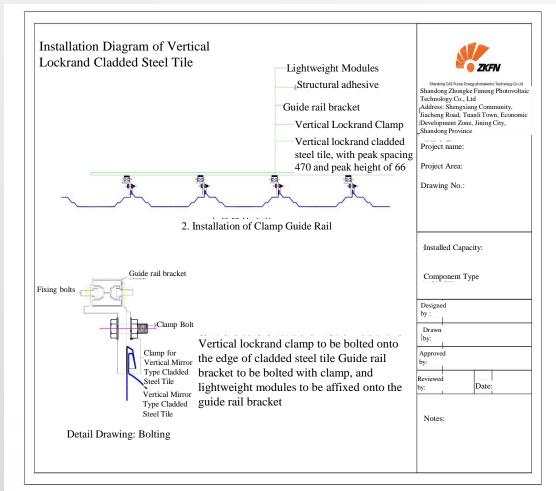


2. Industrial and Commercial Factory Building: Vertical Lockrand Cladded Steel Tile Roofing



2.3.3 Vertical Lockrand Cladded Steel Tile: Installation Diagram





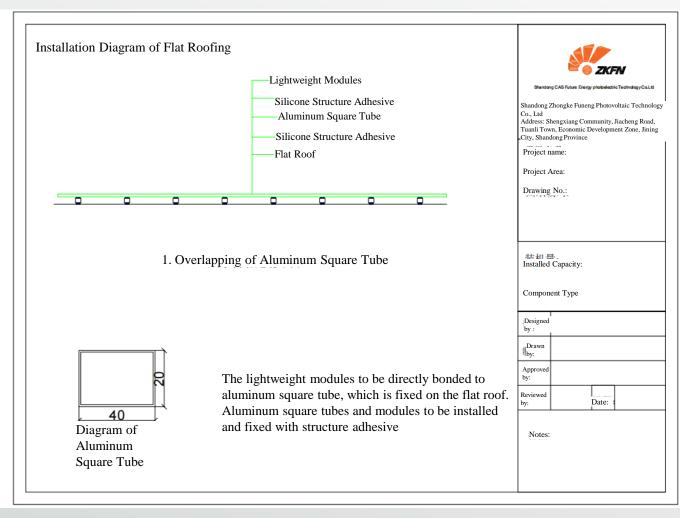
2. Industrial and Commercial Building: Non-load-bearing Roofing



2.4.1 Non-Load-bearing Roofing: Installation Diagram



Low Load-Bearing Cement Roofing

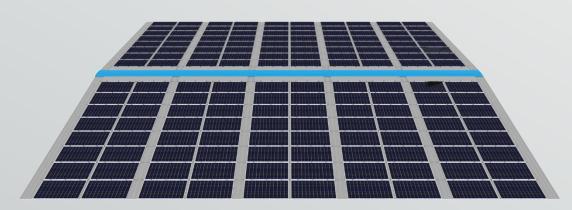


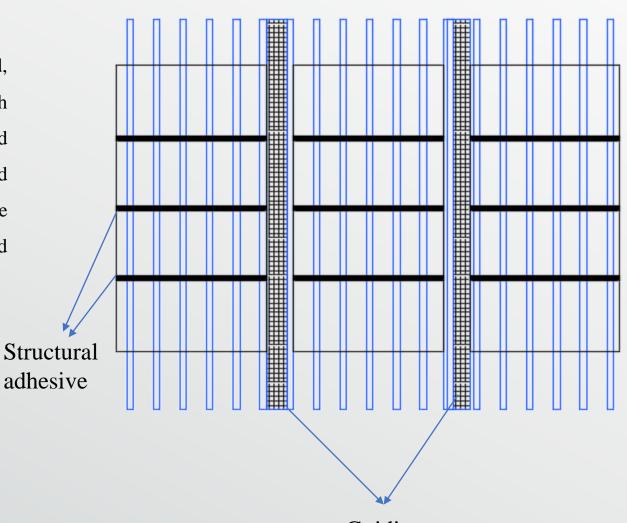
2. Industrial and Commercial Factory: Lightweight BIPV Mode



2.5.1 Lightweight BIPV Mode: Installation Philosophy

"Overlapping" is considered. The modules are overlapped, and overlapping joint faces downward along the slope. Such design philosophy has better waterproof, and stronger wind resistance, suitable for various types of industrial and commercial roofs. The water guide trough is installed on the roof blank area, serving as an access for maintenance and drainage, greatly improving waterproof effect of roof.





Guiding gutter

2. Industrial and Commercial Factory: Lightweight BIPV Mode



2.5.2 Lightweight BIPV Mode: Overlapping Installation Using Structure Adhesive

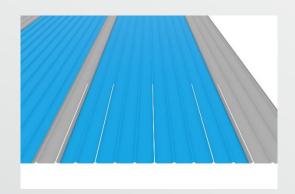
1st Cleaning: Cladded Steel Tile Surface Cleaning



2nd Positioning: Positioning and Marking



3rd Fixing: Fixing Water Guide Trough



4th Applying Adhesive: Applying Structure Adhesive



5th Overlapping: Overlapping Modules



6th Rolling: Rolling and Pressing

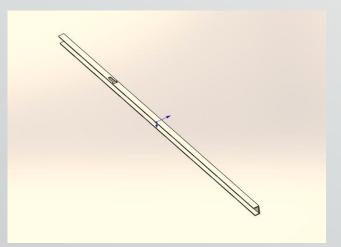


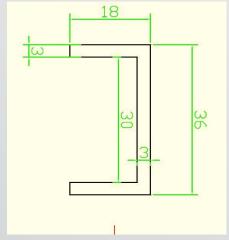
2. Industrial and Commercial Factory Building: Building Façade



2.6.1 Building Facade: Installation Principles

The lightweight modules are installed on the building façade, using a combination of C-shaped steel and fixed screws, with structure adhesive or double-sided tape fixation. Effectively improving architectural effect of facade and fully utilizing building area to install photovoltaic power plants.







Sampling Picture Post Installation

Outline Image of Support Component Cross section View of Support Component

2. Industrial and Commercial Factory Building: Building Façade

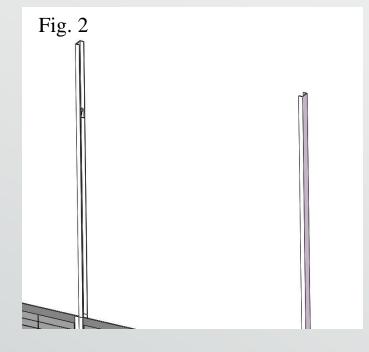


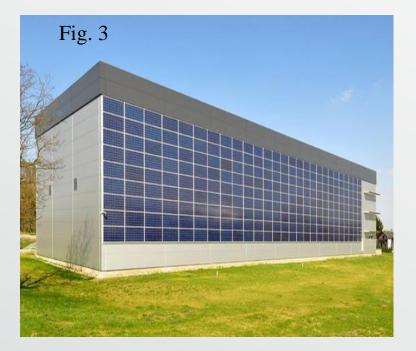
2.6.2 Building Facade: Installation Method

- 1. Bolt Positioning for Plated Curtain Wall (Figure 1)
- 2. Hanging the framed lightweight modules according to bolt position (Figure 2)
- 3. Removing the double-sided tape at the blank area and then fixing (Figure 3)

Fig. 1









3

Residential House Roofing



3.1.1 Sand-coated Metal Roofing Tile: Type Introduction

Tile Type	Product Dimensions	Effective Dimension	Picture
Seven-wave Type/Beveled-edge Type	1340*420mm	1290*370mm	
Milan Type	1340*420mm	1290*370mm	
Roman Type	1300*420mm	1280*370mm	



3.1.1 Sand-coated Metal Roofing Tile: Type Introduction

Tile Type	Product Dimensions	Effective Dimension	Picture
Checkerboard Type	1320*420mm	1250*370mm	
Wood Grain Type	1330*420mm	1280*370mm	
Northen Type/Classic Type	1340*420mm	1290*370mm	



3.1.2 Sand-coated Metal Roofing Tile: Structure Adhesive Application

1st Cleaning: Cladded Steel Tile Surface Cleaning



2nd Positioning: Positioning and Marking



3rd Applying: Applying Sealant



When roof slope is ≥ 25°, the rear area of module needs to be bonded with double-sided foam tape for preventing from slipping and/or shifting.

4th Placing: Placing Module



5th Rolling: Roller Brushing and Rolling





3.2.1 Glazed Tiles: Introduction to Tile Types





Tile Surface Type	тнк.	Length	Colours	Total Width	Peak Spacing Distance
Glazed Tile	2.5. 3.0mm	Customized according to multiple of section-to-section distance (125mm/section)	Purplish Red, Brick Red, Gray, Dark Green, Blue	Total Width: 1030 Effective Width: 950mm Section-to-section Width: 125mm/section	Peak Distance 190mm Peak Height 50mm
	2.5. 3.0mm	Customized according to multiple of section-to-section distance (125mm/section)	Purplish Red, Brick Red, Gray, Dark Green, Blue	Total Width: 1030 Effective Width: 950mm Section-to-section Width: 125mm/section	/



3.2.2 Glazed Tile: Structure Adhesive Application

1st Cleaning: Cladded Steel Tile Surface Cleaning



2nd Positioning: Positioning and Marking



3rd Applying: Applying Sealant





4th Placing: Placing Module



5th Rolling: Roller Brushing and Rolling

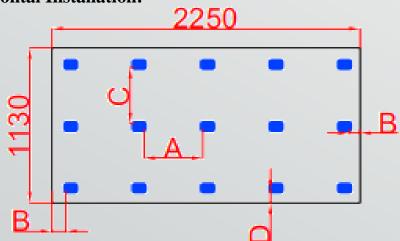


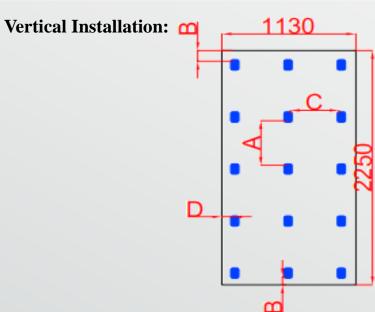


3.2.3 Glazed Tiles: Installation Method

Mounting Arrangement	Peak Spacing: A (mm)	Sealant Application Position (PCS)	Sealant Application Length (mm)	Sealant Application Spacing: A (mm)	Distance to Short Edge: B (mm)	Sealant Application Spacing: C (mm)	Distance to Long Edge: D (mm)
Horizontal Installation	≤190	15	≥80	≤550	≤25	≤500	≤65
Vertical Installation	≤190	15	≥80	≤550	≤25	≤500	≤65
Note	Tiled Roofing	Average Distribution	/	Even Sealant Application	Symmetrical Sealant Application	Even Sealant Application	Symmetrical Sealant Application

Horizontal Installation:







3.3.1 Cylinder-roofing and/or Pan-roofing Tile: Introduction to Tile Type





	Tile Surface Type	Spec. & Size	Production Process
Codin	Cylinder-roofing and/or Pan- roofing Tile	500*375mm	Material made by mixture of sand, clay, and other materials, which is often
Cylin		500*375mm	coated with coarse glaze post manufacturing. Cylinders, basins, etc. are used for manufacturing



3.3.2 Sand-coated Metal Tile Roofing: Structure Adhesive Application

1st Cleaning: Cladded Steel Tile Surface Cleaning

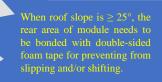


2nd Positioning: Positioning and Marking



3rd Applying: Applying Sealant





4th Placing: Placing Module



5th Rolling: Roller Brushing and Rolling

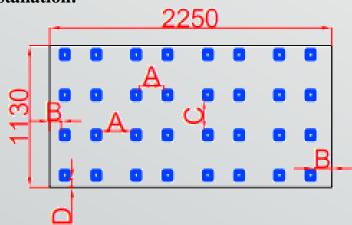




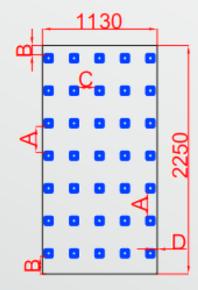
3.3.3 Cylinder-roofing and/or Pan-roofing Tile: Installation Method

Mounting Arrangement	Peak Spacing: A (mm)	Sealant Application Position (PCS)	Sealant Application Length (mm)	Sealant Application Spacing: A (mm)	Distance to Short Edge: B (mm)	Sealant Application Spacing: C (mm)	Distance to Long Edge: D (mm)
Horizontal Installation	≤210	32	≥60	≤450	≤30	≤245	≤197.5
Vertical Installation	≤210	35	≥60	≤400	≤105	≤250	≤65
Note	Tiled Roofing	Average Distribution	/	Even Sealant Application	Symmetrical Sealant Application	Even Sealant Application	Symmetrical Sealant Application

Horizontal Installation:



Vertical Installation:





4 Exception Handling

4. Exception Handling



SN	Exception Description	Recommended Solution	Picture
1	Rust stains on the edge surface of cladded steel tile roofing	Mixed industrial solvent to be used for rust removal After rust removal, anti-rust painting is required	
2	Screw Protrusion: fastening screw at the edge surface of cladded steel tile	1. Screw protrusion ≤ 5mm, structure adhesive to be used. 2. Screw protrusion > 5mm, protective guide rail to be used, and to be fastened diagonally on the side of cladded steel tile.3. Cladded steel tile roofing recommended to use flat-top screws or side fastening or trough fastening methods	

4. Exception Handling



SN	Exception Description	Recommended Solution	Picture
3	Gravel and dust found on the surface of tile	Using a broom to clean the gravel and dust, and dipping a mop in clean water to clean the same	
4	Partial sinking or missing of tile surface	Quick-drying cement and local leveling and repair, cleaning	

4. Exception Handling



SN	Exception Description	Recommended Solution	Picture
5	Roof slope>25°, a large slope	Using foam tape to help positioning for preventing from shifting, and help application of structure adhesive	
6	Weeds and Trees on the Tile Surface	Weeding, uprooting, cleaning, repairing, leveling CLEANING	

