ShinkoLite™

ACRYLIC ROOF INSTALLATION MANUAL

ShinkoLite™

BETTER TRANSPARENCY OF LIVING

CONTENTS

NEW

SHADE : Shinkolite Opague Roof

Color	Code	Light Transmission %	Heat Reflection %	UV Cut (%)
PEARL WHITE	430S	20	> 50	100%

SUPERIOR : Shinkolite Translucent Acrylic Roof

Color	Code	Light Transmission %	UV Cut (%)
Glass Frosted	SP-NB00	50	95.7
Light Brown	SP-NC95	70	99.4
Foggy Brown	SP-NB30	45	99.4
Marine Blue	SP-B857	26	99.7

NATURE : Shinkolite Translucent Acrylic Roof

Color	Code	Light Transmission %	UV Cut (%)
Clear	NT-001	90	98.4
Light Grey	NT-332	70	98.9

HEAT CUT : Shinkolite Translucent Acrylic Roof

Color	Code	Light Transmission %	Infrared Heat Cut %	UV Cut (%)
Classic Brown	HC-570	29	56	99.7
Royal Blue	HC-B703	23	48	99.6
Modern Grey	HC-N828	15	58	99.8
Noble Green	HC-N590	19	59	99.8

PRIME : Shinkolite Translucent Acrylic Roof

Color	Code	Light Transmission %	Infrared Heat Cut	UV Cut (%)
Brownish Green	PR-562	13	75	99.6
Modern Grey	PR-N828	14	69	100

Shinkolite 7S (Usage Considerations)

SPACE : Ensure the space is open on at least two sides. Avoid proximity to any open flames or heat sources, such as ovens. Maintain a minimum height of 3 meters between the roof and the floor.

SAVE COST : To minimize acrylic sheet wastage and potential cost implications, it is advisable to consider adjustments in the installation area. For instance, awnings with dimensions of 1 meter, 1.5 meters, 2 meters, and 2.5 meters are well-suited for accommodating acrylic sheet sizes.

STRUCTURE : Ensure the assigned spacing is adhered to during the preparation of the structure. Keep the rafter size below 1.392 m Align the rafters and purlins parallel to each other. The purlin space depends on each model, SHADE: 40 cm I HEAT CUT, SUPERIOR, NATURE: 50 cm I PRIME: 100 cm If the roof exceeds a length of 6 meters, a staircase structure with an appropriately sized metal structure is necessary.

SLOPE : 5 degrees slope

SPARE GAP : Allow a spare gap of 12-14 mm to accommodate potential shrinkage and expansion caused by sunlight exposure. Ensure the gap to the eaves does not exceed 10 cm

SCREW : Use the screw first, then followed by the router bit for further drilling. Ensure the screw is positioned in the center of the hole, considering a router bit size of 12.4 mm Avoid using the screw directly on the sheets in all cases.

STAIN : Utilize a water hose to remove dust from the sheets. Follow up with a soft sponge or cloth soaked in water mixed with dishwashing soap for thorough cleaning. Avoid using mirror cleaner or thinner as cleaning agents for the sheets.

SHINKOLITE INSTALLATION METHOD

Features

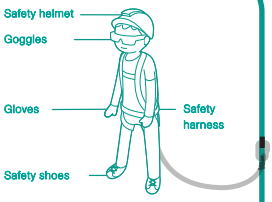
- A glossy, clear, and modern surface with an aesthetic appeal. The surface maintains its clarity and avoids yellowing over time.
- Weight only half as much as a glass sheet of the same size while offering more excellent resistance to significant impacts compared to regular glass sheets and tempered glass.
- 100% Recyclable
- The heat reduction of up to 48-59%* (Heat Cut Series), 69-75%* (Prime Series) with a heat cut model. Provides effective shading and heat reduction compared to nature acrylic sheets.

* Percentage of infrared reduction.

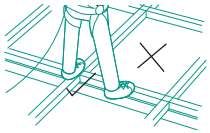
Recommended practices for safe installation and post-installation maintenance.

1. It is necessary to wear standard personal protective equipment, including a safety helmet, goggles, safety shoes, and gloves.

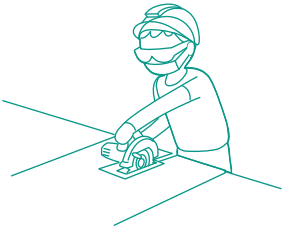
2. When working on a roof higher than 1.8 meters, it is essential to wear a safety harness connected to a lifeline. Ensure the lifeline is securely attached to a suitable anchorage at all times during installation, maintenance, and cleaning activities.



3. Never step directly on Shinkolite acrylic roof sheets without a properly secured supporting structure underneath. This precaution is crucial to safeguard the safety of workers and prevent any potential damage to the product.



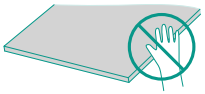
4. It is important to be aware that cutting, drilling, and polishing Shinkolite acrylic roof sheets may generate odor, dust, and scattered fragments, which can be hazardous to the respiratory system. To prevent inhalation of dust and fumes during these processes, it is mandatory to use protective gear such as goggles and masks designed to protect against dust particles and fumes.



First aid procedures

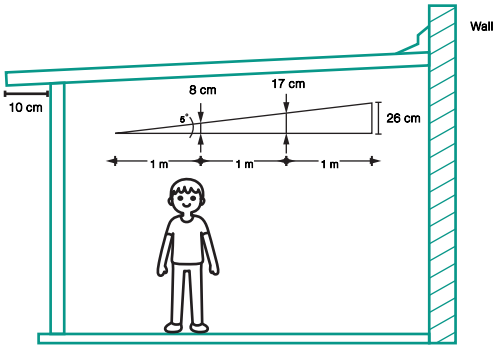
- In case of ingestion, seek immediate medical attention and do not attempt self-induced vomiting.
- If skin irritation occurs, rinse the affected area with soap and water. If the irritation persists, seek medical advice from a physician.
- If fumes or dust get into contact with the eyes, rinse thoroughly with clean water for a minimum of 15 minutes. If irritation continues, seek medical attention from a physician.
- If inhaling fumes or dust, promptly move them to a well-ventilated area. If the person experiences difficulty breathing or their breathing becomes slow or stops, seek immediate medical attention from a physician.

5. Handle shinkolite acrylic roof sheets with care due to the presence of sharp edges. to prioritize safety, it is advised to wear protective gloves when handling the sheets.



USAGE INSTRUCTIONS

1. Utilize shinkolite translucent acrylic roof sheets with thermal insulation properties (heat cut) for effective heat protection and optimal utilization of natural daylight.
2. For the installation and design of shinkolite translucent acrylic roof sheets, it is advisable to follow the recommendations provided by civil engineers.
3. Avoid installing the shinkolite translucent acrylic roof sheet in areas with temperatures exceeding 70 degrees Celsius or near flammable objects such as stoves or field stoves to prevent potential damage to the acrylic roof sheet and mitigate the risk of physical injury or property damage.
4. The installation space should be limited to open areas. (with a minimum of two sides open)
5. It is crucial to adhere to the recommended fastening and screwing guidelines provided in the installation handbook to ensure proper installation and maintain the warranty of Shinkolite translucent acrylic roof sheets. These sheets can flexibly stretch or shrink when exposed to direct sunlight. Incorrect installation may void the product warranty.
6. If the length of the roof exceeds 6 meters, it is recommended to construct the structure in a stairway pattern. Alternatively, it is advisable to consult with distributors for further assistance for guidance on the installation manual's structure.
7. It is essential to use exclusively shinkolite installation equipment. Avoid using any equipment made from PVC directly and permanently on the sheets, such as flashing sheets or adhesive tape. This precautionary measure helps safeguard against the damage that may occur on the roof sheets. (cracking)
8. The roof should be installed with a slope of at least 5 degrees to ensure effective water drainage.
9. Ensure that the overhang length from the eave does not exceed 10 centimeters to prevent the bending of the acrylic sheet. Using the over length may lead to undesirable bending of the sheet.
10. Since the shinkolite roof sheet is translucent, maintaining its cleanliness relies on the user's usage and maintenance practices, as explained in detail on Page 21



Required slope for structure preparation.

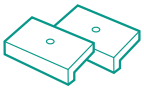
INSTALLATION MATERIALS AND TOOLS

1

ALUMINIUM FRAME COVER

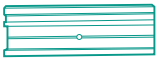
2

ALUMINIUM FRAME

3

END CAP

4

FLASHING Z

5

FLASHING Z JOINT
(FOR SMOOTH WALLS)

6

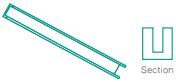
FLASHING L

7

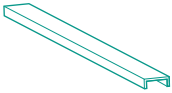
RUBBER BASE

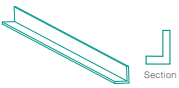
8

EPDM (BLACK)
CLAMP RUBBER SEAL

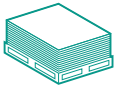
9


U PROFILE

10

ALUMINIUM FRAME COVER

11


L PROFILE

12

SHINKOLITE
ACRYLIC ROOF SHEET

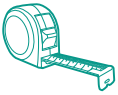
13

JIG SIZE: 12-14 mm, 2-3 PIECES

- To assist in maintaining the desired gap between sheets
- Constructed using materials such as acrylic or plywood.
- For more details, please refer to page 17

14

ROUTER BIT 12.4 mm

15

MEASURING TAPE

16

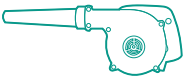
SCISSORS FOR CUTTING
ALUMINUM FLASHING

17

3M DOUBLE TAPE

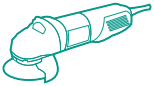
18

SILICONE SEALANT WITH CAULK GUN
(100% ACID FREE SILICONE)

19

BLOWER

20

ELECTRIC DRILL AND BITS
(LOW SPEED)

21

GRINDER WHEEL
(TILE CUTTER, SIZE 4", FOR
CORNER SHEET INSTALLATION)

22

HAND HELD CIRCULAR SAW
(ALUMINUM CUTTER, SIZE 4" 40 TEETH,
FOR SHEET LENGTH CUTTING)

23

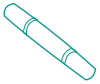
ALIGNMENT ROPE

24

SCREW # 10 x 1.5"
BLOCK WRENCH NO.8

25

RUBBER HAMMER

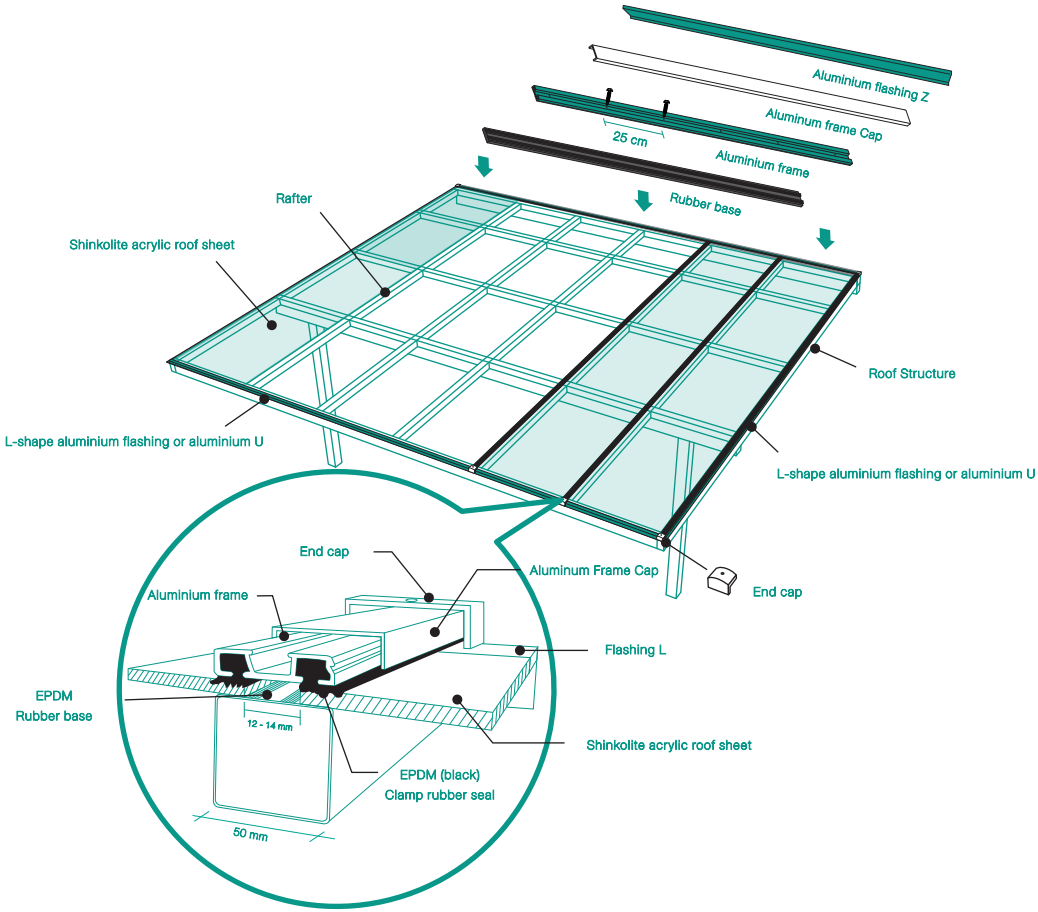
26

CHEMICAL PEN

Remark: Use only the shinkolite roof sheets installation equipment recommended by authorized sales agents. for a reference list of sales agents, please visit www.shinkolite.co.th

SHINKOLITE TRANSLUCENT ACRYLIC SHEETS INSTALLATION METHOD

Installation steps

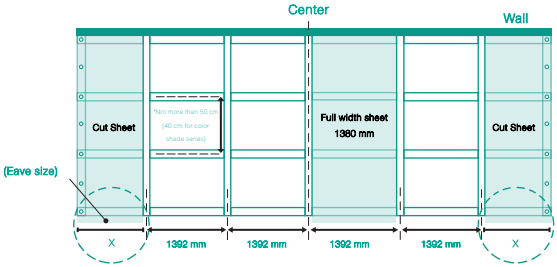
1. Structural design
2. Prepare the roofing structure following the specified standards.
3. Prepare the shinkolite acrylic roof sheet for installation.
4. Install EPDM rubber sheets along the lines of the rafters for additional support.
5. Position the shinkolite translucent acrylic roof sheet and edge cover flashing following the specified requirements.
6. Install the aluminum frame cover and the end cap cover.
7. Install z-shaped aluminum flashing and edge with aluminum U or L.
8. Thoroughly inspect the entire installation and remove any protective films on the installed roof sheets.



1 Support structural design

1.1 Full sheet usage (with no waste)

The spacing between the rafters is 1392 mm (measured from center to center). The gap between the rafters from the left edge to the right edge will be narrower than the center.



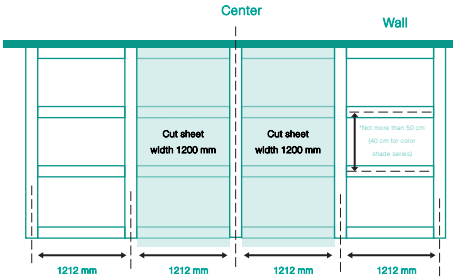
Pros - Reduce waste.
- User-friendly and easy to work with.
- Wider light fields.

Cons - Non-uniform spacing of the structure.
- Structural change is required in case of renovation.

Tips: Only for the far left and far right rafters, the eaves space should not exceed 10 cm (cut sheet) and should be smaller than the space between rafters in the middle.

1.2 In case the structure falls short of the standards.

The spacing between rafters is consistent.



Pros - The structure maintains symmetry in every position.

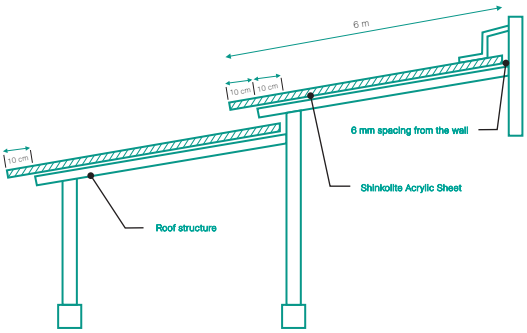
Cons - The price per square meter is higher than the usable space due to the waste generated during cutting.
- More cutting works.

*The spacing of purlins varies depending on each model, as follows:

- SHADE 40 cm
- HEAT CUT, SUPERIOR, NATURE 50 cm
- PRIME 100 cm

The width of the rafters should be a minimum of 2".)

1.3 Structure for roof spans over 6 meters



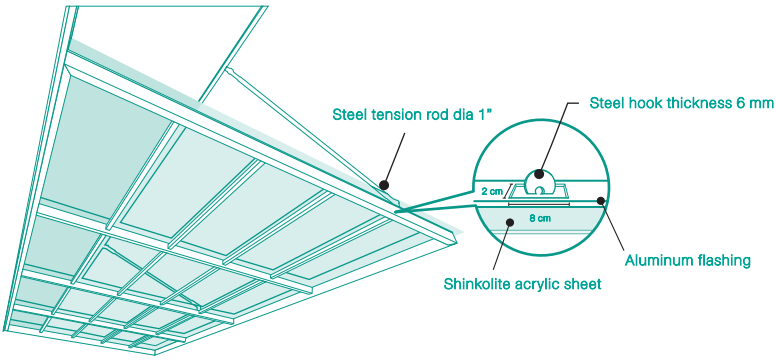
MUST READ

- A separate stair-step pattern is recommended for roofs with lengths exceeding 6 meters.
- An approximate overlap of 20 cm is recommended for the sheets to prevent water reflux.
- Aluminum flashing or steel plate can be utilized to prevent water reflux between the two stairway patterns.
- Do not attach the spreader along the roof purlins and avoid using silicone to connect the sheets in any circumstances.

1.4 Tension rod structure designs

1.For installation, a 5-degrees slope protruding from the wall is recommended to ensure the roof sheet's proper drainage of water.

2.The protruding distance should not exceed 10 cm from the eave as the excessive length may cause bending to the roof sheet.



Rain gutter installation (SCG's SMART is recommended.)

- A minimum of 5-7 cm of eaves extending into the rain gutters to prevent water reflux water.
- The roofing structure should be designed and prepared in advance to accommodate the proper size and space for the purlin, allowing for the installation of rain gutters with a recommended allowance of 17 cm

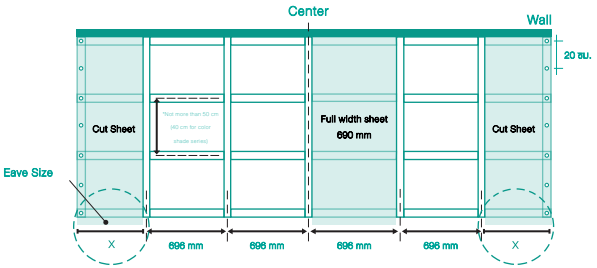
Precautions

1. The wall attached to the roof must not be precast.
2. The tension rod supporting the roof structure should be attached only to the column or beam structure.
3. The overhanging roof structure should not extend more than 3 meters from the wall and 10 meters from the floor.
4. The cantilever structure can have an impact on installed equipment and materials during heavy rainfall. Recommend installing a rain gutter on the main roof to reduce the amount of water.

MUST READ

1.5 Design and prepare structures to support installations in high places and areas exposed to strong winds.

- Acrylic sheet width: 690 mm
- Acrylic sheet thickness: 6 mm
- Center rafter spacing: 696 mm
- Purlin spacing : following specified standards.
- Roof slope: 5 degrees
- Screw mounting distance: 20 cm

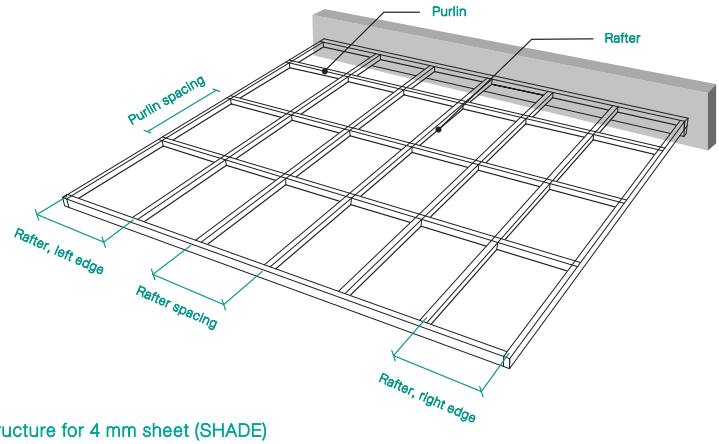


Remark:

For installation at a height of 10-20 meters above ground level and in areas exposed to strong winds, it is advisable to receive guidance from a civil engineer.

② Roof structure preparation to meet the standards

The alignment between rafters and purlins must be at the same level following these recommendations.



NEW

2.1 Structure for 4 mm sheet (SHADE)

Sheet width	Sheet thickness	Purlin size (center-to-center)	Rafter spacing* (center-to-center)	Rafter spacing* (left / right)	Structural steel size	
					Rafter	Purlin
1380 mm	4 mm	400 mm	< 1392 mm	*	2" x 4"	1" x 1"

2.2 Structure for 6 mm sheet (HEAT CUT, SUPERIOR, NATURE)

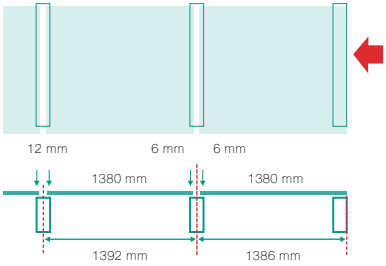
Sheet width	Sheet thickness	Purlin size (center-to-center)	Rafter spacing* (center-to-center)	Rafter spacing* (left / right)	Structural steel size	
					Rafter	Purlin
1380 mm	6 mm	500 mm	< 1392 mm	*	2" x 4"	1" x 1"

2.3 Structure for 10 mm sheet (PRIME)

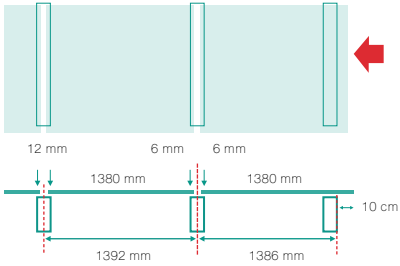
Sheet width	Sheet thickness	Purlin size (center-to-center)	Rafter spacing* (center-to-center)	Rafter spacing* (left / right)	Structural steel size	
					Rafter	Purlin
1380 mm	10 mm	1000 mm	< 1392 mm	*	2" x 4"	2" x 2"

Tips : Calculating the rafter distance (left and right edges)*

1. Structural design for aligning the sheet edge with the rafter edge.

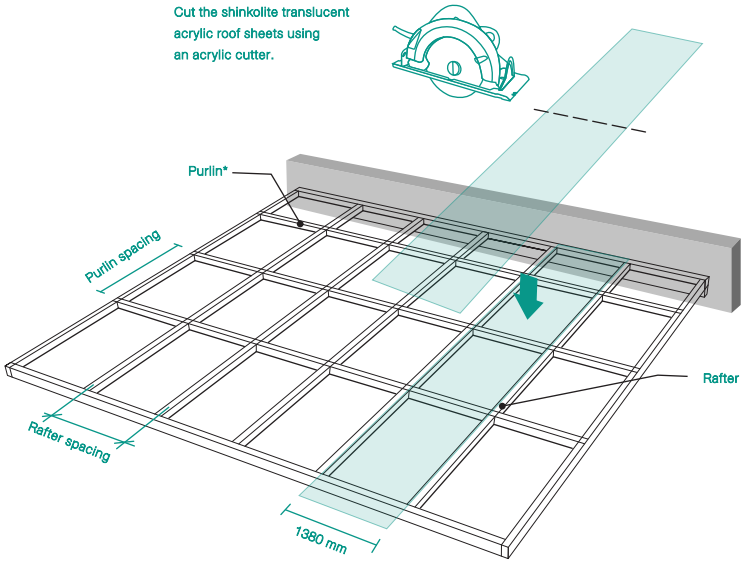


2. Structural design for extending the sheet edge exceeding the rafter edge.



③ Preparing shinkolite translucent acrylic roof sheets for installation.

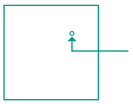
Prepare shinkolite translucent acrylic roof sheets by cutting to the required size using a handheld circular saw. Use a marking rope to indicate the cut lines.



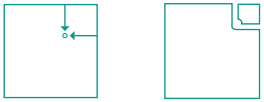
* The spacing of purlins varies depending on each model. Recommended studying the manual before installation.

Tips : Cutting the sheet to fit the corner of the column

1.Drill guide holes with a size of 3.5 mm and use a router bit with a size of 12.4 mm to enlarge the drilled holes.



2.Cut the sheet in the direction of the arrow using a grinding stone.



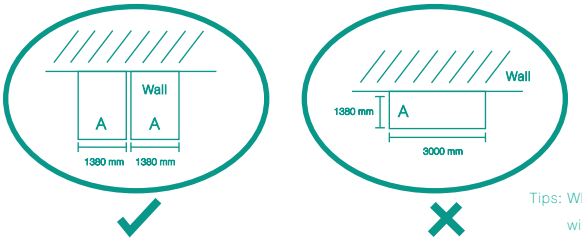
4 Installing EPDM rubber sheets along the Rafters

Use 3M tape or acid-free silicone to attach the EPDM rubber to all the rafter lines. (In case of using a structural purlin with a width exceeding 1.5 inches, it is recommended to attach the EPDM rubber to all purlin lines as well.) The EPDM rubber serves to reduce noise resulting from temperature contraction and acrylic sheet expansion, as well as to prevent rainwater leakage.

5 Positioning the shinkolite translucent acrylic roof sheet and edge cover flashing installation

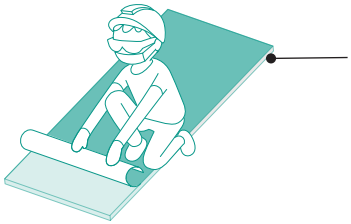
Things to know before installing the sheet.

5.1 The roof sheet with a width of 1,380 mm should be installed parallel to the wall.



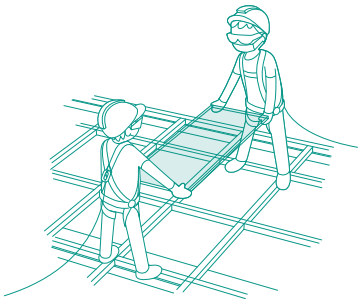
Tips: When installing a roof sheet directly in contact with the wall or a box used to conceal the slope, ensure there is a clearance distance of 6 mm between the wall and the edge of the roof sheet.

5.2 Remove the underside protective film of the roof sheet.



The bottom part is to be placed on the frame.

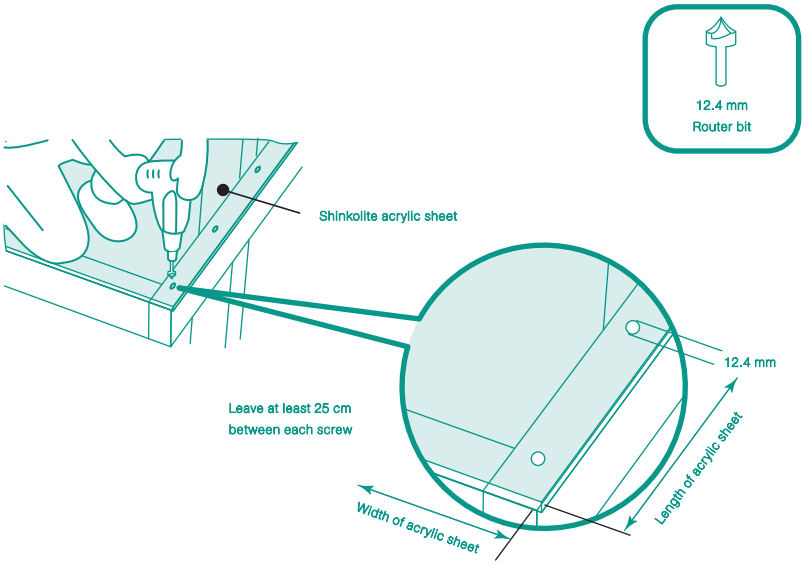
5.3 Attach a shinkolite translucent acrylic roof sheet with the film side facing up. Workers should assist in lifting and positioning the roofing sheet on top. **be careful of scratches and damage to the sheet during the installation process.



**Considering the weight of the shinkolite translucent acrylic roof sheet, which is approximately 7 kg per square meter for a 6 mm thickness and 4.8 kg per square meter for a 4 mm thickness, it is important to assess the number of workers needed to safely lift and handle the sheets, while adhering to ergonomic guidelines. It is advised that individuals such as children, pregnant women, and the elderly refrain from lifting the roof sheets.

5.4 Peel off the top protective film on each side of the roof sheet, leaving a 10 cm strip exposed, for the convenience of attaching the aluminum frame.

5.5 Drill a guide hole on the Shinkolite translucent acrylic roof sheet using a 3.5 mm drill bit. Enlarge the drilled hole with a 12.4 mm router bit. Maintain a screw spacing distance of 25 cm (In areas prone to strong winds, the spacing should be reduced to 20 cm)



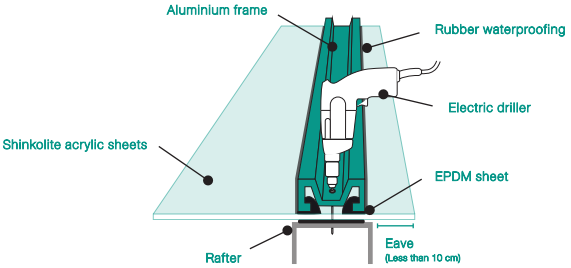
MUST READ

Remark : 1.Avoid using large drill bits for boring holes, as they can create chips underneath the acrylic sheet. This can be one of the reasons for cracking when the sheet is exposed to heat.

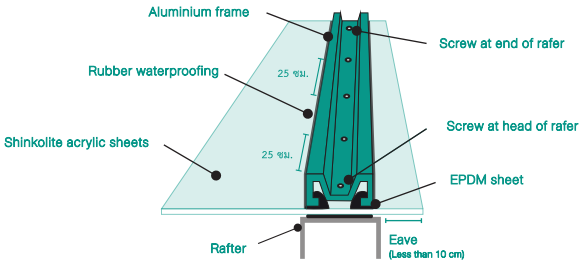
2.Avoid drilling directly into the sheets in all cases.

Tips: Centering a screw in a reamer hole

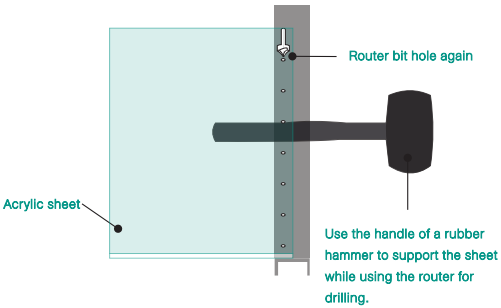
1.Place a template to adjust the eave to the required position (ensuring that it does not exceed a protrusion of 10 cm) Then, position the aluminum frame over the roofing sheet, aligning it with the centerline of the rafters. Use a 3.5 mm drill bit to drill through the aluminum frame, the roofing sheet, and the top side of the rafter steel tube at both ends of the rafter. Once the holes are drilled, secure the aluminum frame in place by tightening screws through the drilled holes.

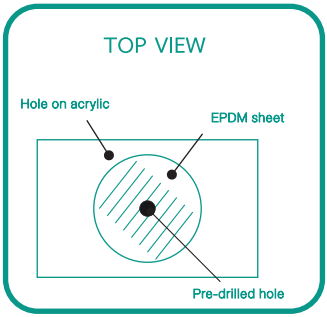


2.Use a drill to create holes through the roof sheet and the top side of the rafter tube. Maintain a spacing of 25 cm between each hole. (or 20 cm in windy areas)



3.Loosen the screws on both ends of the rafter. Next, remove the aluminum frame. Place the handle of a rubber hammer beneath the roofing sheet to lift it off the steel frame. It is suggested to use a router bit to enlarge the drilled guide hole. (be careful not to move the plate to prevent misalignment.)



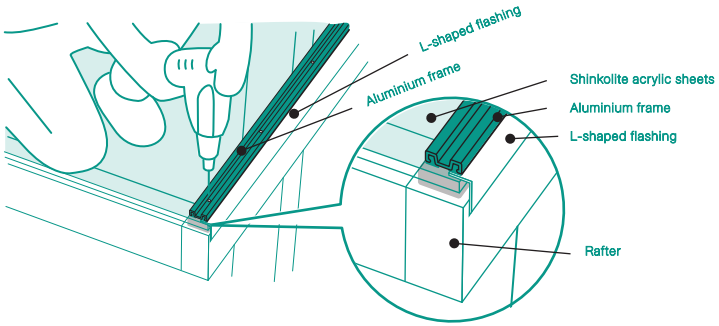


5.6 Use an air blower to remove any acrylic scraps resulting from drilling, as they are known to be a major factor in causing cracks on the roof sheet due to expansion when exposed to high temperatures.

5.7 Installation of L-shaped flashing for aligned eaves edge and structure

- Installation of side-mounted L flashing

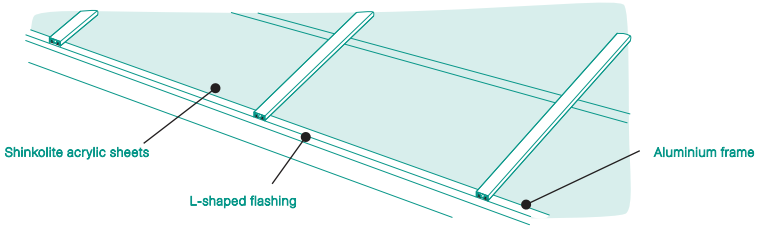
  position the L flashing to cover the edge of the shinkolite acrylic roof sheet. Next, place the aluminum frame on top and align it with the previously drilled hole on the acrylic roof sheet for drilling.



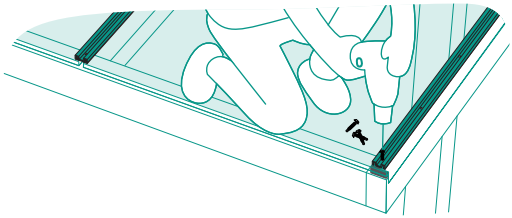
Remark: Screwing should be done by initially placing the screw bit inside and then screwing it down

- In case where the "L" flashing is installed at the front

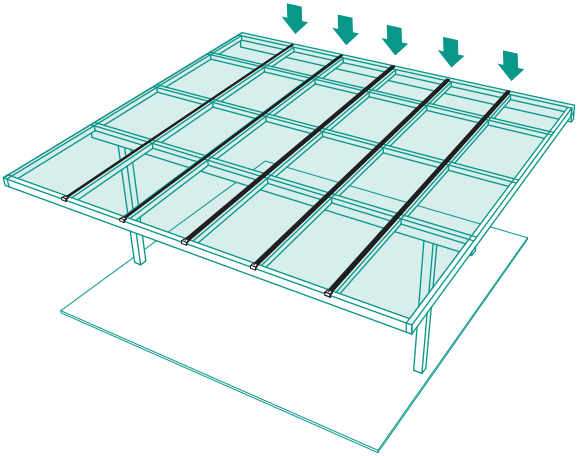
  It is recommended to place the flashing between shinkolite translucent acrylic roofing sheet and the aluminum frame, where the aluminum frame should be plac ed on top of the "L" flashing.



5.8 Tighten the screws at the drilled points by first securing the screws at the head and end positions.

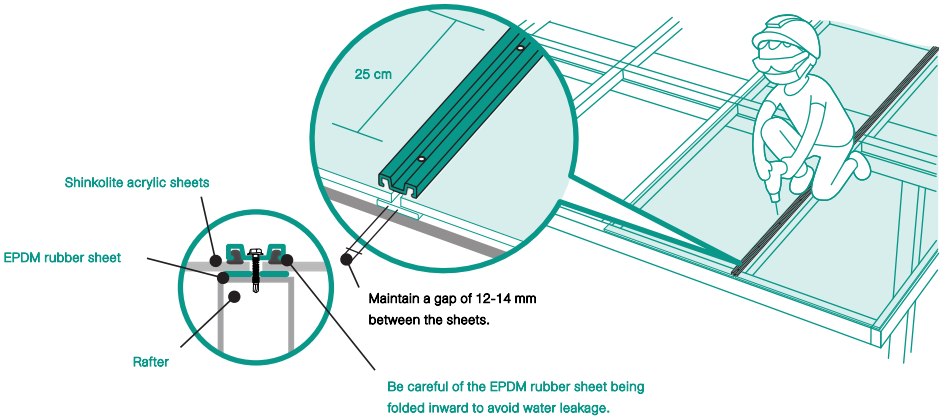


- The roofing sheet should be installed between the left and right edges of the roof.



5.9 Peel off the top protective film on each side of the roof sheet, leaving a 10 cm strip exposed, for the convenience of attaching the aluminum frame.

5.10 Secure the shinkolite translucent acrylic roof sheet to the aluminum frame, ensuring a gap of approximately 12-14 mm between roofing sheets. Set a distance of 25 cm between each screw, but in windy areas, the spacing should be around 20 cm

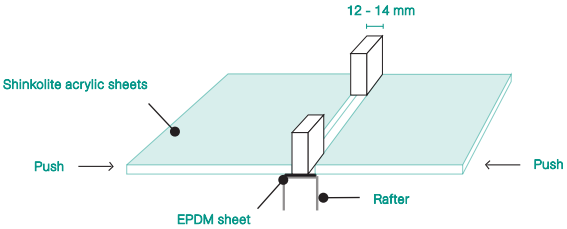


MUST READ

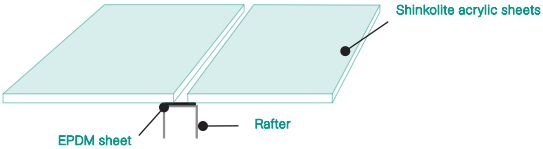
Remark: This roofing installation method does not involve directly screwing into the acrylic sheet, as it may cause cracking when exposed to sunlight heat.

Tips: Maintaining a 12-14 mm gap between sheets

1.Position the jig on both ends as indicated in the illustration. Push the roofing sheet against the jig to ensure contact.

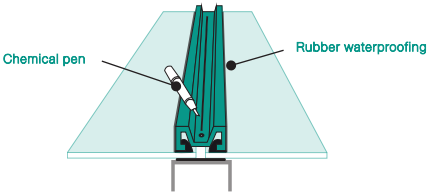


2.Once the roofing sheet is properly positioned, remove the jig and proceed with securing the roofing sheet in its normal position. Ensure that a gap of 12-14 mm is maintained.

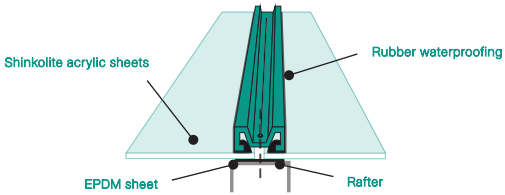


Tips: Method for securing screw at the center

1.Use a pen to mark the center of the aluminum frame by referencing the drilled holes.



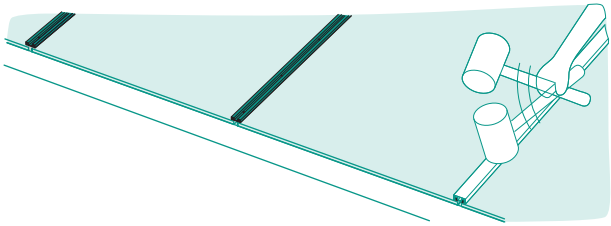
2.Begin by securing the aluminum frame on both ends using the marked points at the center of the 12-14 mm gap.



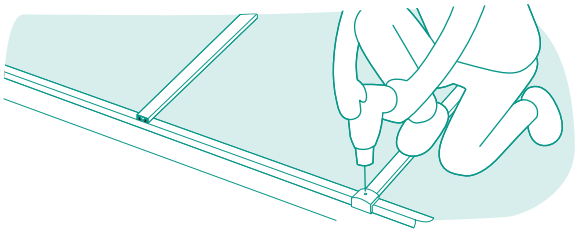
3.Drive screws at intervals of 25 cm (or 20 cm for windy areas) along the line marked with a pen.

6 Installation of aluminum frame and end cap covers

6.1 After installing the aluminum frame, it is necessary to cover it with the aluminum cover to prevent rainwater from leaking inward. Secure the cover to the frame by using a rubber hammer on its surface. (until a 'click' sound is heard.)

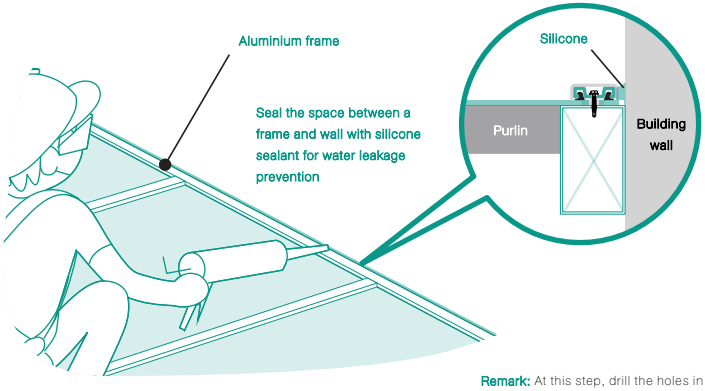


6.2 Install the end cap cover at the end of the aluminum frame by using drilling equipment to create guide holes for tightening with screws. (use short screws of approximately 1/2" to prevent the screw end from contacting the roofing sheet.)



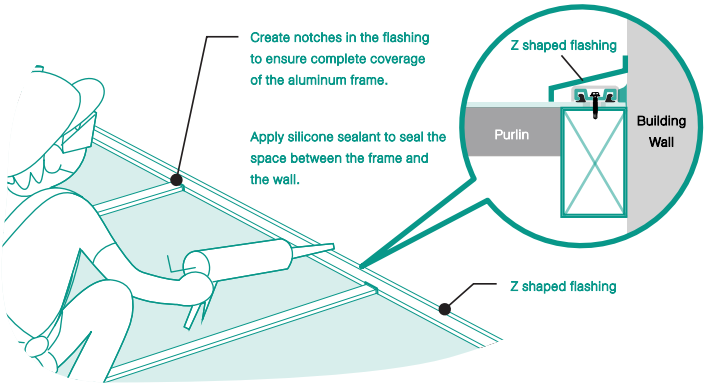
7 Z-shaped aluminum flashing and edge with aluminum U or L installation

7.1 To secure the roofing sheet to the building's wall, follow the instructions stated in section 5.5 to drill the acrylic roofing sheet. Place the aluminum frame on top of the drilled acrylic roof sheet and align the holes on the aluminum frame with the corresponding holes on the acrylic roof sheet. Finally, tighten screws at the drilled holes to firmly attach the roof sheet to the structure, and cover the aluminum frame with the aluminum cover.

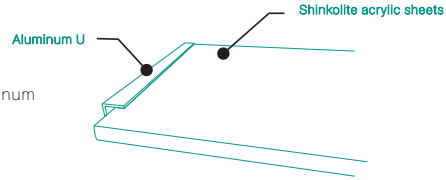


Remark: At this step, drill the holes in a circular shape.

7.2 After completing the installation of the aluminum frame, use Z flashing to cover the joint between the Shinkolite acrylic sheet and the building wall. Secure the Z flashing with screws to fasten it to the wall and apply silicone sealant along the joint for added reinforcement. In some cases, trimming the Z flashing to create notches may be necessary using scissors to ensure complete attachment to the sheet, such as along the frame joint.

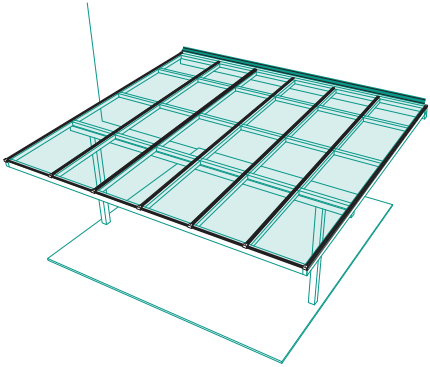


7.3 Use silicone sealant to secure the U-shaped aluminum edge covers.



8 Inspection of installation and removal of film on roof sheet

After completing the installation, thoroughly inspect the roofing sheet to ensure there are no cracks. Test the drainage system to confirm there are no signs of leakage. Remove the protective film from the top of the Shinkolite translucent acrylic roof sheet. Refer to the illustration for the complete installation process.



⚠ Precautions:

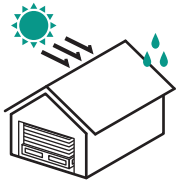
The top protective film should be immediately removed after installation and testing for water leakage. If left exposed to heat and sunlight, the film may melt and be unable to peel.

Tips:

The film must be peeled off within one week after installation.

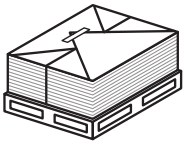
SHINKOLITE TRANSLUCENT ACRYLIC ROOF SHEET
STORAGE BEFORE INSTALLATION

1. To ensure the maximum quality of the Shinkolite acrylic roof sheet before use, store it in a dry condition, preferably inside a building and away from sunlight. (temperature and moisture can impact the product prior to use.)

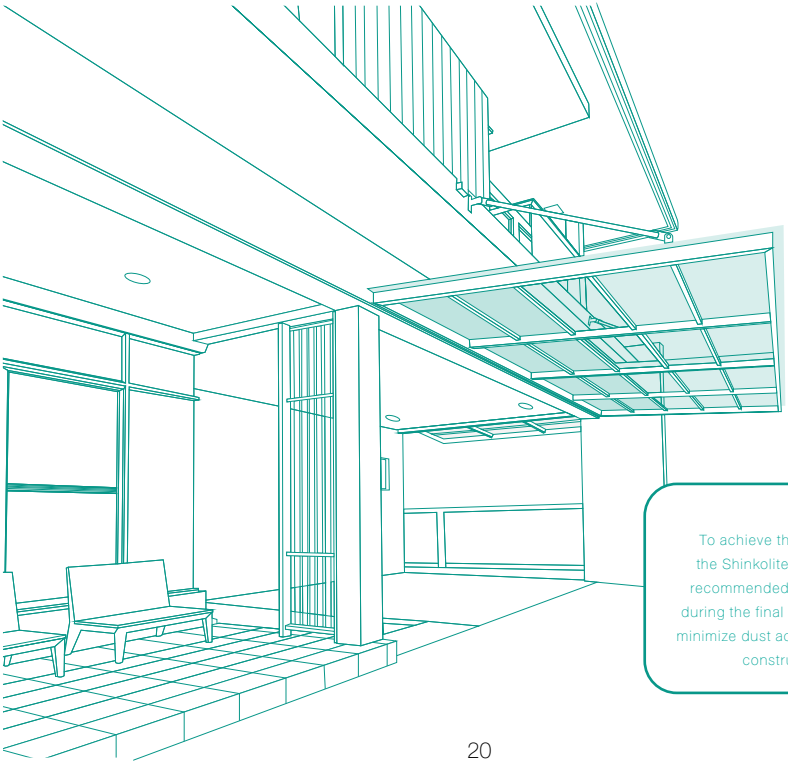


2. Before installation, it is recommended to store the Shinkolite acrylic roof sheet on a pallet elevated from the ground to prevent moisture buildup.

⚠ Take caution to prevent pallets and sheets from falling over during storage and transportation.



3. When moving or transporting Shinkolite acrylic roof sheets, it is advisable to cover the sheets completely with canvas or a roof to prevent expansion or bending caused by exposure to sunlight and heat before installation.



Tips:

To achieve the best appearance for the Shinkolite acrylic roof sheet, it is recommended to install the roof sheet during the final stages of construction to minimize dust accumulation from ongoing construction activities.

SHINKOLITE TRANSLUCENT ACRYLIC ROOF SHEET MAINTENANCE AFTER INSTALLATION

1. Avoid using any hard or sharp objects to clean the shinkolite translucent acrylic roof sheet, as they can leave marks on its surface.

2. Clean the acrylic sheet using mild soapy water, water mixed with shampoo, or diluted dishwashing soap. Rinse it thoroughly with clean water and then dry it with a soft cloth or Chamois cloth.

3. To remove paint stains from Shinkolite acrylic roof sheets, use a light cloth soaked in kerosene or turpentine to wipe the stains. Afterward, wipe the area again with mild soapy water.

** Avoid using glass cleaning liquid, cleanser, gasoline, lacquer, or thinner on the surface of the Shinkolite acrylic roof sheet, as they can cause damage and internal cracking (crazing) may cut the user's hand.**

Shinkolite installation regulations for designers, installers, and users

- Shinkolite translucent acrylic roof sheet is suitable for installations such as canopies, parking roofs, walkways, terrace roofs, and resting pavilion roofs in open areas. However, it is important to note that the installation height should not exceed 10 meters above the ground. Please refrain from using Shinkolite acrylic roof sheets in improper applications such as contact with food or drink, as a shelf or wall, or for decorative vehicle parts, toys, and toy accessories. Such uses may be unsafe and not recommended.
- The installation recommendations provided in this handbook are specifically for the installation of Shinkolite translucent acrylic roofing sheets as mentioned above. For any other types of usage or applications, it is necessary for the user to consult with a specialized engineer. The responsibility for such decisions lies with the designer, construction supervisor, and user.
- Due to its plastic composition, the surface of Shinkolite translucent acrylic roof sheets may have a slight waviness compared to glass surfaces.
- Noise resulting from the contraction or expansion of the acrylic sheet is a specific characteristic of the material. To absorb and reduce such noise, EPDM rubber supports are available for purchase through the recommended channels on the website.

POST-INSTALLATION ADDITIONAL INFORMATION

Problem	Cause	Recommended solution
Damaged or cracked sheet	The position of the screw does not be placed in the center of the drilled hole or the center of the gap between each sheet.	Replace the new sheet
	Use screws to directly secure the sheet in place.	
	Effects of strong impact on acrylic sheets from hard materials	
	There are any acrylic scraps and dust remain in the screw holes after installation, they can cause the sheet to crack during thermal expansion due to heat.	
	The drill is not used with router bits to guide the hole before achieving a proper fit of the sheet in the corner.	
Wavy or bent sheet	The gap between each sheet along the rafter is smaller than the recommended 12-14 mm	Adjust the gap or trim the edge of the sheet to increase the opening along the rafter, ensuring it meets the recommended 12-14 mm (If the problem is identified but left unaddressed for a long time or not promptly fixed, the acrylic sheet may not be able to return to its original smooth condition.)
	The rafter and purlin structure are uneven.	Adjust ensure that the rafter and purlin structure is even.
	The screw is not positioned in the center of the hole or in the center between the sheets.	Adjust position the screw in the center or in the center between the sheets.
	Screw the sheet directly without making a hole.	Use the drill to screw in and the router bit to create the hole.
	Some acrylic scraps are left inside the hole, they can cause expansion when exposed to heat.	Ensure to clean the sheet after each screwing operation, before proceeding with the installation.
	Install the sheet near areas with temperatures exceeding 70 degrees Celsius or near open flames, such as stoves.	Avoid using any equipment that could generate temperatures exceeding 70 degrees Celsius, such as a stove.
	Install the sheet in enclosed areas.	Install the sheet in an open area with at least two openings according to the recommended guidelines.
	Install the sheet in a horizontal position.	Cut or trim the acrylic sheets along the rafter according to the recommended guidelines.
	Inject silicone between the acrylic sheets.	Remove the silicone from between the acrylic sheets.

POST-INSTALLATION ADDITIONAL INFORMATION

Curved sheet sags (puddles of water)	The slope of the structure is less than 5 degrees.	Adjust the slope of the structure to 5 degrees as recommended.
	T gap between the rafter and the beam is wider than the recommended specifications.	Adjust the gap between the rafter and the beam to match the recommended specifications.
Water Leakage	The slope of the structure is less than 5 degrees.	Adjust the slope of the structure to 5 degrees as recommended.
	The aluminum frame is not installed along the wall.	Install the aluminum frame along the wall.
	The Z flashing is not installed along the wall.	Install the Z flashing along the wall.
	The acrylic sheets are connected together.	Replace the sheet (Do not install by connecting sheets together)
	EPDM rubber sheet is not installed on the aluminum frame.	Install EPDM rubber sheet on the aluminum frame.

* The problems are often discovered after 1-2 weeks of installation.

Disposal of shinkolite translucent acrylic roof sheet.

Cut the sheet into small pieces and dispose of them in the recycling bin or contact a disposal specialist for proper disposal.

Remark : For more detailed installation instructions, please refer to www.shinkolite.co.th

www.shinkolite.co.th

CHECKLIST

Areas 'should' be checked after the installation of shinkolite acrylic sheets

1. The roof structure has been constructed using appropriate materials and design.	☐ Yes	☐ Needs repair
2. The roof structure is correctly aligned, plumb, and level.	☐ Yes	☐ Needs repair
3. Inspection for cracks in the installed Shinkolite acrylic sheets.	☐ Yes	☐ Needs repair
4. An aluminum cap covering the aluminum frame to protect against water leakage.	☐ Yes	☐ Needs repair
5. The overall condition and uniformity of the roof after installation	☐ Yes	☐ Needs repair
6. The overall condition and cleanliness of the finished work after installation ensure that the installers have cleaned the roof well.	☐ Yes	☐ Needs repair
7. PU or silicone sealant is applied between the end wall joint and the roof to provide additional protection against leakage.	☐ Yes	☐ Needs repair
8. The roof/awning water drainage system should be assessed for proper flow and ensure that the water follows the intended direction as per the design after conducting a water spray test on the roof. There are no puddles of water on the Shinkolite acrylic roof.	☐ Yes	☐ Needs repair
9. The overall condition of the L-shaped and Z-shaped flashing installation inspection.	☐ Yes	☐ Needs repair
10. The spacing of the purlins is following the standards specified for each roof model.	☐ Yes	☐ Needs repair

(SHADE : 400 mm I HEAT CUT, SUPERIOR, NATURE : 500 mm I PRIME : 1000 mm)

Areas 'must' be checked after the installation of shinkolite acrylic sheets

1. The protective film on the Shinkolite Acrylic Sheet was completely removed within 7 days.	☐ Yes	☐ Needs repair
2. The screw must be positioned at the center of the hole. (4.4 Tips: Positioning the screws at the center)	☐ Yes	☐ Needs repair
3. When installing the L flashing on the side, it is suggested to position the L flashing and then secure it along with the aluminum frame. (4.6)	☐ Yes	☐ Needs repair
4. In any installation case, it is necessary to screw an aluminum frame onto the top eaves to prevent the sheets from moving.	☐ Yes	☐ Needs repair
5. The rafter and the purlin are at the same level.	☐ Yes	☐ Needs repair
6. Do not use silicone to seal the gap between the sheets.	☐ Yes	☐ Needs repair

Edited version : 202403

Further information

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ShinkoliteAcrylic

Website: www.shinkolite.co.th

For more detailed information about our products, please

contact distributors located near you through our website.