

**ShinkoLite**™



## 'Better Transparency Living'

Innovative Transparent Acrylic Roof Sheets.  
Deliver good value, durability, strength and beauty.  
Meet every design. Used for roofs of terraces, awnings, corridors,  
parking spaces, and leisure pavilions.



អេក៉ាប់រំលែងនៃក្រុមហ៊ុន



SHINKOLITE transparent acrylic roof sheets have been developed under the cooperation of SCG Chemicals and Mitsubishi Chemical Corporation, Japan. There are Nature and Heat Cut models to respond to the needs of residents, corresponding to the new lifestyle that makes the residents feel close to nature.

### SHINKOLITE Acrylic Roof : Nature Grade

SHINKOLITE Nature comes with beautiful appearance that can filter light and prevent UV radiation. ShinkoLite Nature has 4 colors for you to choose : Light Brown, Light Grey, Glass Frosted and Clear. ShinkoLite Nature will make all of your spaces look clear, modern and relaxing. ShinkoLite Nature suits the areas where you want natural light.

| Color         | Code | Light Transmittance (%) |
|---------------|------|-------------------------|
| Clear         | 001  | 90                      |
| Light Grey    | 332  | 70                      |
| Glass Frosted | N800 | 50                      |
| Light Brown   | NC95 | 70                      |

#### Nature



Size ■ wide 1380 x long 3000 mm. ■ wide 1380 x long 6000 mm.

Thickness ■ 6 mm.

### SHINKOLITE Acrylic Roof : Heat Cut Grade

The new ShinkoLite Heat Cut has special heat prevention feature that can reduce the heat from sunlight under the roof for approximately 5 degree Celsius\* by preventing the heat from Infrared radiation for 48-59%, which reduces energy cost, makes the area clear, provides shade, reduces heat. ShinkoLite Heat Cut comes with 4 colors including Modern Grey, Classic Brown, Royal Blue and Noble Green, making your clear spaces look beautiful, modern and relaxing. ShinkoLite Heat Cut is best for rain protection, heat reduction, shade increase and sunlight filtration.

#### Heat Cut



\*from laboratory test results

| Color         | Code | Light Transmittance (%) | Heat Cut (%) |
|---------------|------|-------------------------|--------------|
| Classic Brown | 570  | 29                      | 56           |
| Royal Blue    | B703 | 23                      | 48           |
| Modern Grey   | N828 | 15                      | 58           |
| Noble Green   | N590 | 19                      | 59           |

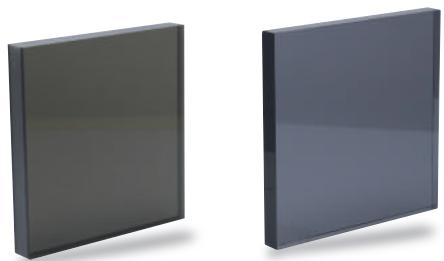
Size ■ Wide 1380 x long 3000 mm. ■ Wide 1380 x long 4000 mm.

■ Wide 1380 x long 5000 mm. ■ Wide 1380 x long 6000 mm.

Thickness ■ 6 mm.

## SHINHOLITE Acrylic Roof : Prime Grade

ShinkoLife Prime comes with 10-mm thickness with special heat prevention feature that can reduce heat from sunlight under the roof approximately 5-6 degree Celsius\* and prevent heat from infrared radiation 69-75%. ShinkoLife Prime has 2 colors to choose : Brownish Green and Modern Grey. ShinkoLife Prime will make your clear space look beautiful, modern and relaxing as well as reduce structure and design limitation.



\*according to ISO 9050 test

| Color          | Code | Light Transmittance (%) | Heat Cut* (%) |
|----------------|------|-------------------------|---------------|
| Brownish Green | N562 | 13                      | 75            |
| Modern Grey    | N828 | 14                      | 69            |

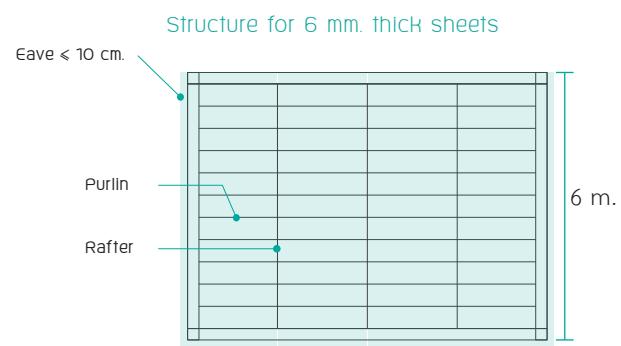
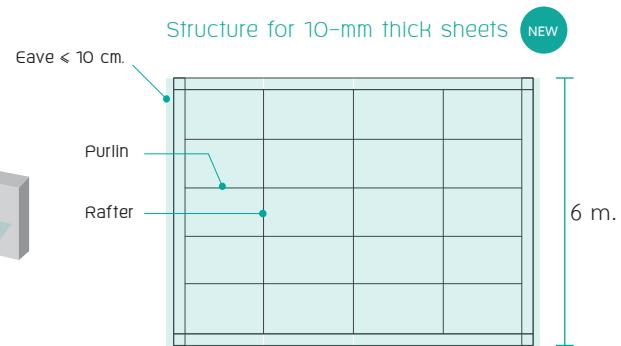
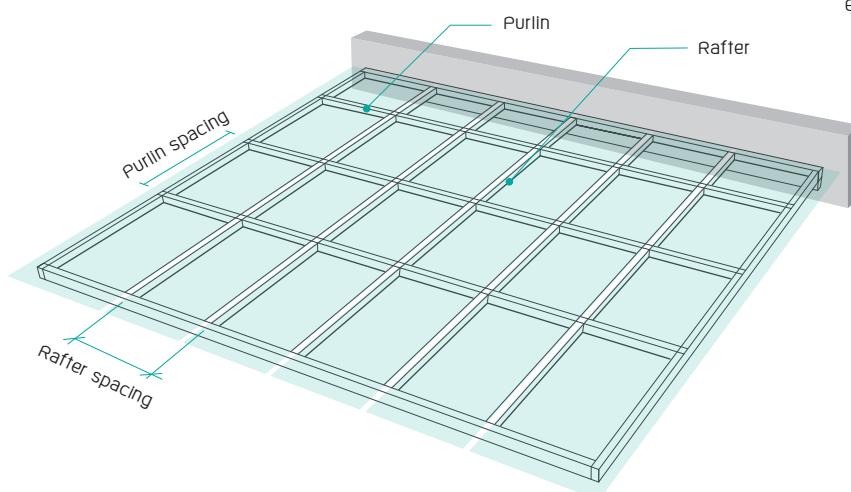
**Size** ■ wide 1380 x long 3000 mm. ■ wide 1380 x long 6000 mm.

**Thickness** ■ 10 mm.

\* % infrared radiation cut

## Roof Structure Preparation

Check the roof structure including rafters and purlins. They should be in the same plane and have the spacing as recommended below.



### Note :

For the extreme left and right rafters, the spacing includes the eave so it is narrower.

\* The rafter spacing should be at least 6 mm. wider than the width of the acrylic sheet on both sides for the sheets to expand when exposed to heat. This will prevent the transparent acrylic roof sheets from bending in the long term.

## Usage General Recommendation

- The structure should be tilted for at least 5 degree for better water flow as shown below.
- To prolong the life of the acrylic sheets, avoid installing in the area with heat of more than 70 degree Celsius or near flame such as stove, field stove, etc.
- The eave should not be extended more than 10 centimeters from the steel structure and adjust the left/right rafters according to the eave.
- Only install the ShinkoLite acrylic sheets in an open area (at least open in 2 sides) such as awning, walkway roof, car park, terrace, etc.

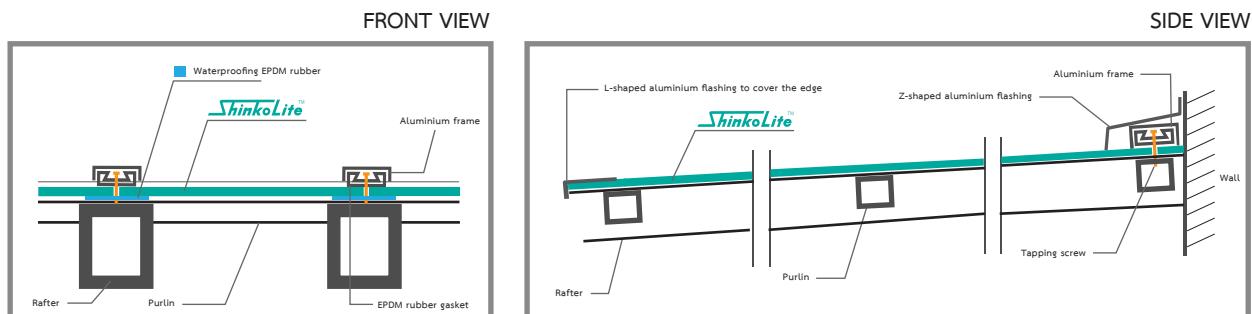
## Storage of Acrylic Sheets before Installation

- Acrylic sheets should be stored on a pallet or shelf high from the floor to prevent exposure to the moisture from the floor.
- Acrylic sheets should be stored in a dry place and away from sunlight for a longer lifespan after installation.

## Cautions

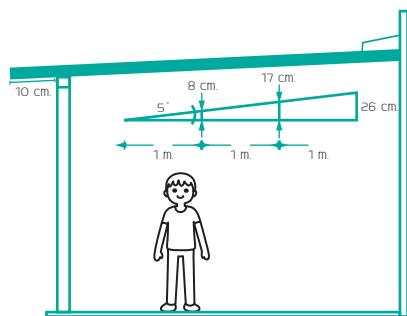
- Avoid stepping on the acrylic sheet without a structural support underneath for the safety of the user and damage prevention.
- Do not use Installation equipment which made from PVC to attach with ShinkoLite sheet at all time (such as rubber flashing, glue tape, etc.) to prevent damage that may occur to the sheet (cracking).
- Be careful of sharp edges or corners of the sheets. For safety and beauty purposes, flashing should be installed to cover the edges of the acrylic sheets.

## Installation



## Material Characteristic

- Because the material is plastic, it could be wavy when compared to glass.
- The noise from the expansion and contraction of the sheet is the nature of the material.



## SHINKOLITE 7S (Usage considerations)

|           |   |
|-----------|---|
| Space     | : The area should be open on at least 2 sides and do not install near source of heat such as stove.   |
| Save Cost | : The Installation area should be adjusted to be similar in size to the sheet usage to avoid wasting the sheets. For example, the awning should be 1 m, 1.5 m, 2 m, 2.5 m, etc., which is a suitable length for the standard sizes of sheets.       |
| Structure | : Prepare the structure as specified. The purlin spacing is 50 cm, the rafter spacing do not exceed 1.392 m., the rafter is welded evenly with the purlin, and in the case that the roof is longer than 6 m, the structure should be a stair shape. |
| Slope     | : The slope is 5 degrees.   |
| Spare Gap | : Make a 12-14-mm gap between each sheet along the rafter for the expansion and contraction of the sheets due to ambient temperature.   |
| Screw     | : Drill a hole with a pilot drill bit and use a router bit to drill the hole and the screw must be in the center of the hole. (The router bit diameter is 12.4 mm)  |
| Stain     | : Use a water hose to spray water to remove dust and use a sponge or soft cloth soaked with water mixed with dishwashing liquid to clean. Do not use glass cleaning liquid and paint thinner. If there is a paint stain, use turpentine to clean.   |

## ShinkoLite Acrylic Roof Sheet Prices

### Acrylic Roof Sheet : Nature

| No. | Color         | Grade | Color Code | Thickness | Weight   | Width | Length | Price     | Price        |
|-----|---------------|-------|------------|-----------|----------|-------|--------|-----------|--------------|
|     |               |       |            | (mm.)     | (kg./m2) | (mm.) | (mm.)  | (Bath/m2) | (Bath/Sheet) |
| 1.  | Light Grey    | L     | 332        | 6         | 7        | 1380  | 3000   | 1,550     | 6,417        |
|     |               |       |            |           |          | 1380  | 6000   | 1,550     | 12,834       |
| 2.  | Light Brown   | LX    | NC95       | 6         | 7        | 1380  | 3000   | 1,550     | 6,417        |
|     |               |       |            |           |          | 1380  | 6000   | 1,550     | 12,834       |
| 3.  | Glass frosted | L     | NB00       | 6         | 7        | 1380  | 3000   | 1,550     | 6,417        |
|     |               |       |            |           |          | 1380  | 6000   | 1,550     | 12,834       |
| 4.  | Clear         | L     | 001        | 6         | 7        | 1380  | 3000   | 1,550     | 6,417        |
|     |               |       |            |           |          | 1380  | 6000   | 1,550     | 12,834       |

### Acrylic Roof Sheet : Heat cut

| No. | Color         | Grade | Color Code | Thickness | Weight   | Width | Length | Price     | Price        |
|-----|---------------|-------|------------|-----------|----------|-------|--------|-----------|--------------|
|     |               |       |            | (mm.)     | (kg./m2) | (mm.) | (mm.)  | (Bath/m2) | (Bath/Sheet) |
| 1.  | Modern Grey   | L     | N828       | 6         | 7        | 1380  | 3000   | 1,800     | 7,452        |
|     |               |       |            |           |          | 1380  | 4000   | 1,800     | 9,936        |
|     |               |       |            |           |          | 1380  | 5000   | 1,800     | 12,420       |
|     |               |       |            |           |          | 1380  | 6000   | 1,800     | 14,904       |
| 2.  | Classic Brown | L     | 570        | 6         | 7        | 1380  | 3000   | 1,800     | 7,452        |
|     |               |       |            |           |          | 1380  | 4000   | 1,800     | 9,936        |
|     |               |       |            |           |          | 1380  | 5000   | 1,800     | 12,420       |
|     |               |       |            |           |          | 1380  | 6000   | 1,800     | 14,904       |
| 3.  | Noble Green   | L     | N590       | 6         | 7        | 1380  | 3000   | 1,800     | 7,452        |
|     |               |       |            |           |          | 1380  | 4000   | 1,800     | 9,936        |
|     |               |       |            |           |          | 1380  | 5000   | 1,800     | 12,420       |
|     |               |       |            |           |          | 1380  | 6000   | 1,800     | 14,904       |
| 4.  | Royal Blue    | L     | B703       | 6         | 7        | 1380  | 3000   | 1,800     | 7,452        |
|     |               |       |            |           |          | 1380  | 4000   | 1,800     | 9,936        |
|     |               |       |            |           |          | 1380  | 5000   | 1,800     | 12,420       |
|     |               |       |            |           |          | 1380  | 6000   | 1,800     | 14,904       |

### Acrylic Roof Sheet : Prime

| No. | Color          | Grade | Color Code | Thickness | Weight   | Width | Length | Price     | Price        |
|-----|----------------|-------|------------|-----------|----------|-------|--------|-----------|--------------|
|     |                |       |            | (mm.)     | (kg./m2) | (mm.) | (mm.)  | (Bath/m2) | (Bath/Sheet) |
| 1.  | Brownish Green | L     | N562       | 10        | 12       | 1380  | 3000   | 3,500     | 14,490       |
|     |                |       |            |           |          | 1380  | 6000   | 3,500     | 28,980       |
| 2.  | Modern Grey    | L     | N828       | 10        | 12       | 1380  | 3000   | 3,500     | 14,490       |
|     |                |       |            |           |          | 1380  | 6000   | 3,500     | 28,980       |

**Note** : Prices excluding VAT (VAT 7%)

\*\* The company reserves the right to change the prices without prior notice. \*\*

## Installation Examples



## Examples of ShinkoLife Roof Design Installation



### Design A Suspending Rods\*

Suspending Rods set

Rectangular steel tube rafter  $3" \times 1 \frac{1}{2}" \times 2.3$  thk.mm.

Rectangular steel tube purlin  $1 \frac{1}{2}" \times 1 \frac{1}{2}" \times 2.3$  thk.mm.

Arm length does not exceed 3.00 m.

\* In case the wall is not precast concrete and the structure is suspended with the beam or column



### Design B Flat Bar Hanging

Flat Bar size 4" Thickness 9 mm

Rectangular steel tube rafter  $3" \times 1 \frac{1}{2}" \times 2.3$  thk.mm.

Rectangular steel tube purlin  $1 \frac{1}{2}" \times 1 \frac{1}{2}" \times 2.3$  thk.mm.

Arm length does not exceed 2.00 m. Must only be installed on the beam.



### Design C Bracing Arm

Rectangular steel tube rafter  $3" \times 1 \frac{1}{2}" \times 2.3$  thk.mm.

Rectangular steel tube purlin  $1 \frac{1}{2}" \times 1 \frac{1}{2}" \times 2.3$  thk.mm.

Arm length does not exceed 3.00 m. Must only be installed on the pillar.



### Design D With column support

Square tube pillar  $4" \times 4" \times 2.3$  thk.mm.

Rectangular steel tube rafter  $3" \times 1 \frac{1}{2}" \times 2.3$  thk.mm.

(depending on the size of the roof)

Rectangular steel tube purlin  $1 \frac{1}{2}" \times 1 \frac{1}{2}" \times 2.3$  thk.mm.

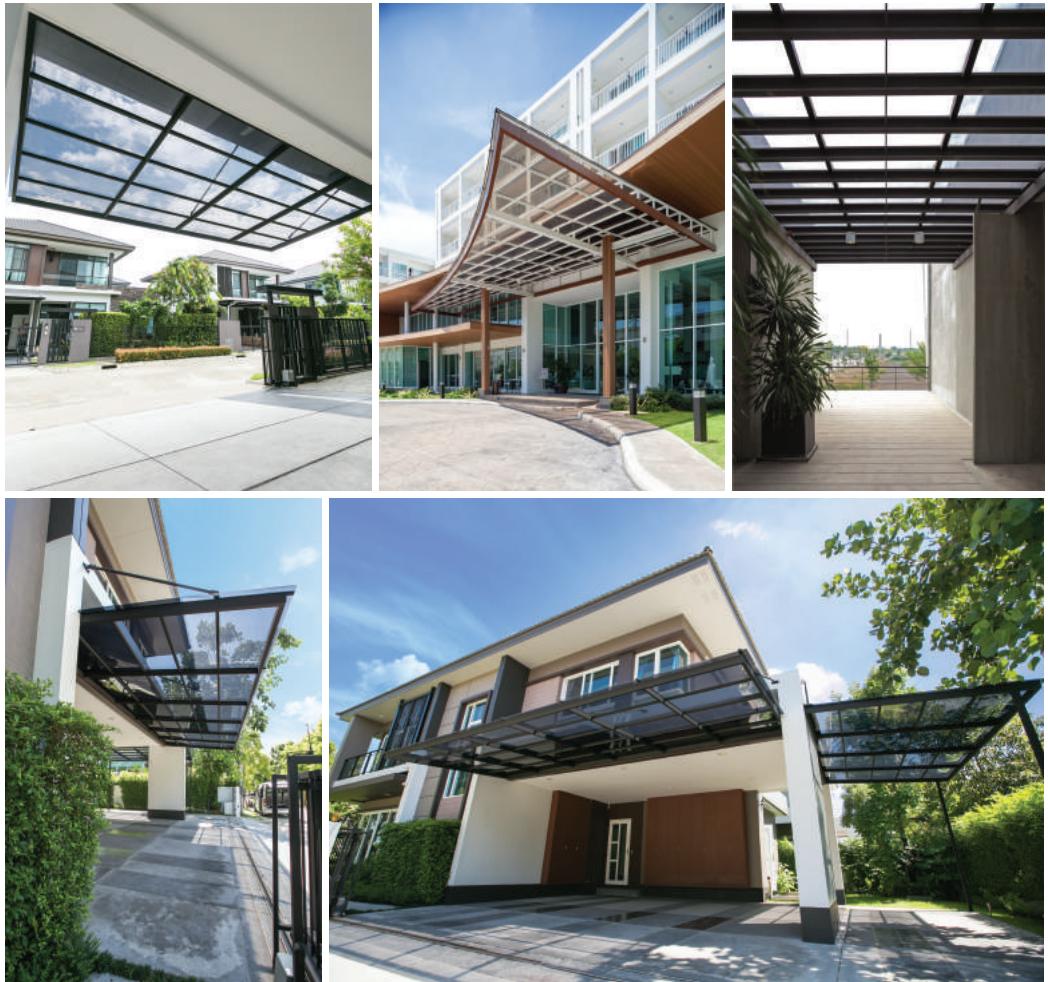
Arm length does not exceed 3.00 m. Do not attach to the main building.



### Design E In case Extension more than 6 m.

\* Consult with civil engineers case by case





Example of Shinkolite roof in various formats

[WWW.SHINKOLITE.CO.TH](http://WWW.SHINKOLITE.CO.TH)