



# Joris Ide Light Solutions

Your clear view of the future!

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**JORISIDE**  
THE STEEL FUTURE



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# JORIS IDE LIGHT SOLUTIONS

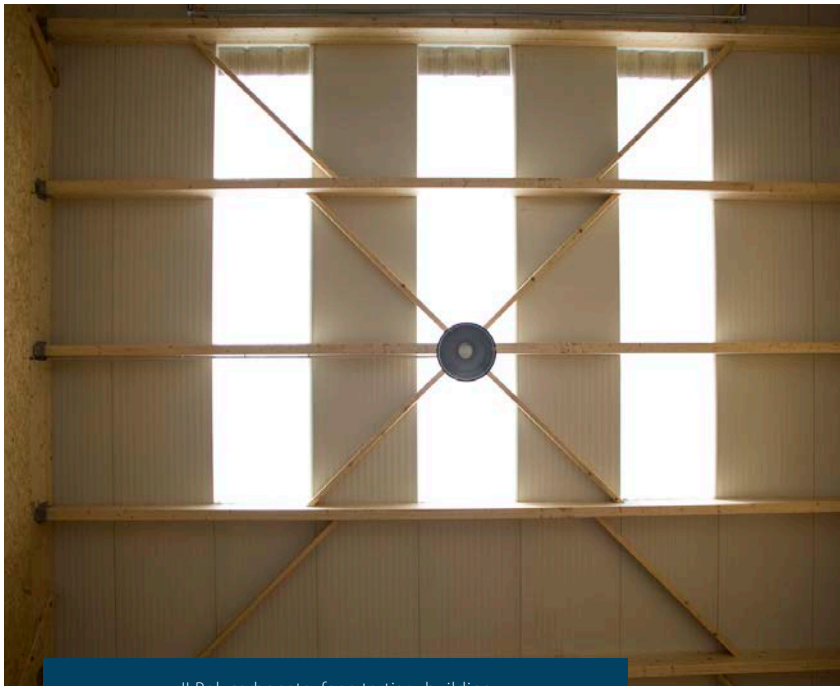
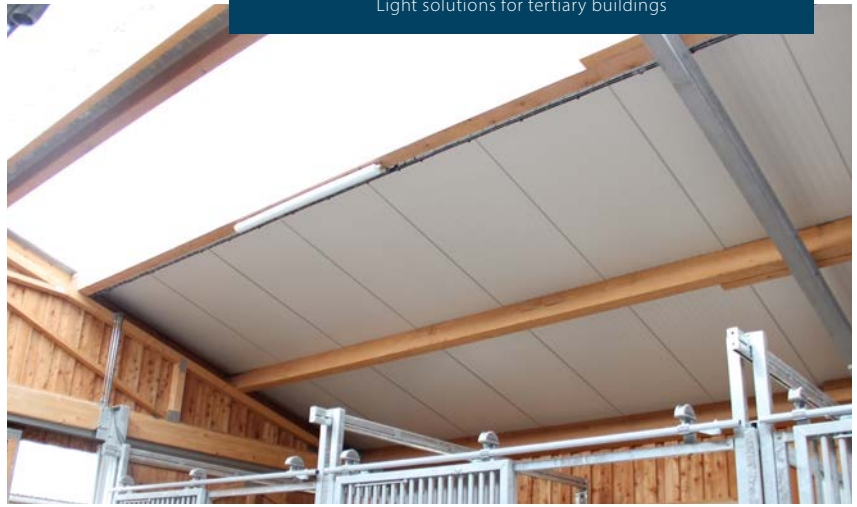
## Your clear view of the future!

Natural light is vital to our well-being and has been defined as indispensable under European standards.

Joris Ide Light Solutions strike the right balance between design and innovation, enhancing the comfort of building users.

Opening up buildings, improving insulation, making ventilation more efficient - light solutions are increasingly important in today's buildings.

Light solutions for tertiary buildings



Jl Polycarbonate for a tertiary building



Light solution  
for an industrial building

At Joris Ide, we became interested in this issue early on, developing adapted, affordable and sustainable solutions for you.

Learn more about our solutions in this brochure. Our teams are also happy to help you resolve any issues you encounter.



## Recommendations

### Use

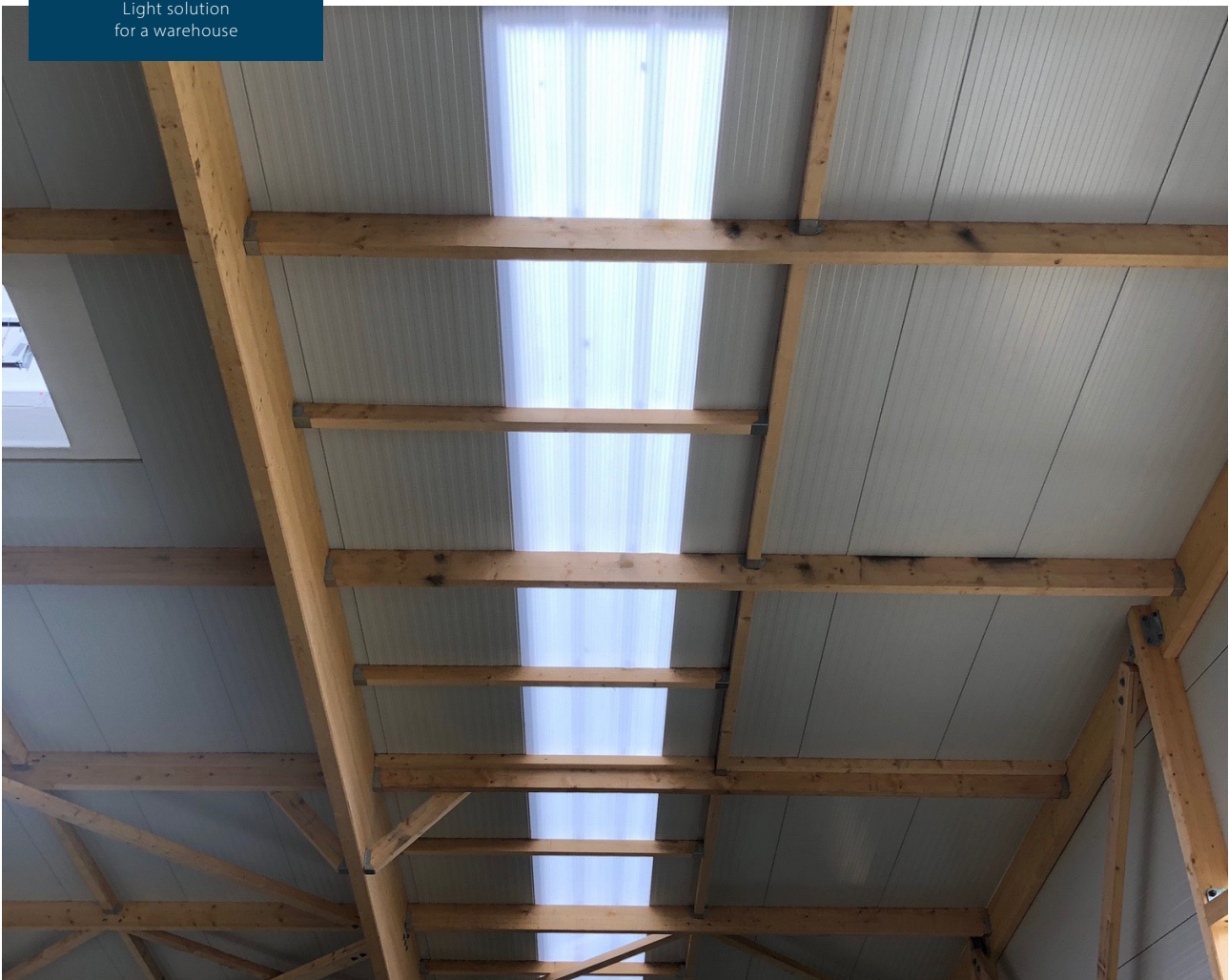
Joris Ide Light Solutions products can be used on a wide range of buildings, warm roofs or cold roofs, with low or medium humidity.



### Installation requirements

- As is the case for metal profiles, these products must overlap lengthwise and laterally, taking the prevailing wind loads into account.
- Supports must be used for lateral overlapping.
- minimum finished roof pitch of 4°, with a minimum design pitch of 5,5° to allow for tolerances and onsite variations
- The recommended span of the 1-mm and 2,5-mm single skin sheets is 1,00 m.
- The recommended span of the JI Thermoroof is 1,50 m.

Light solution  
for a warehouse

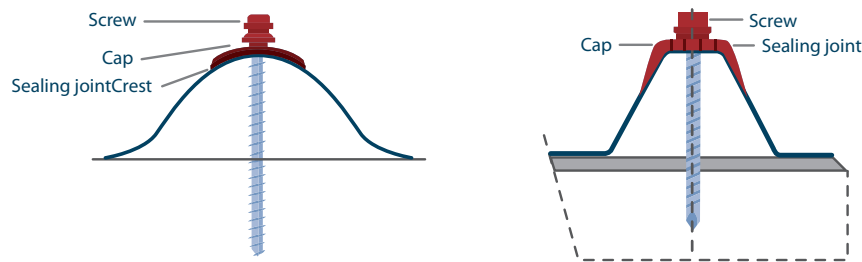


## Installation of translucent single skin sheets (1 and 2,5 mm)

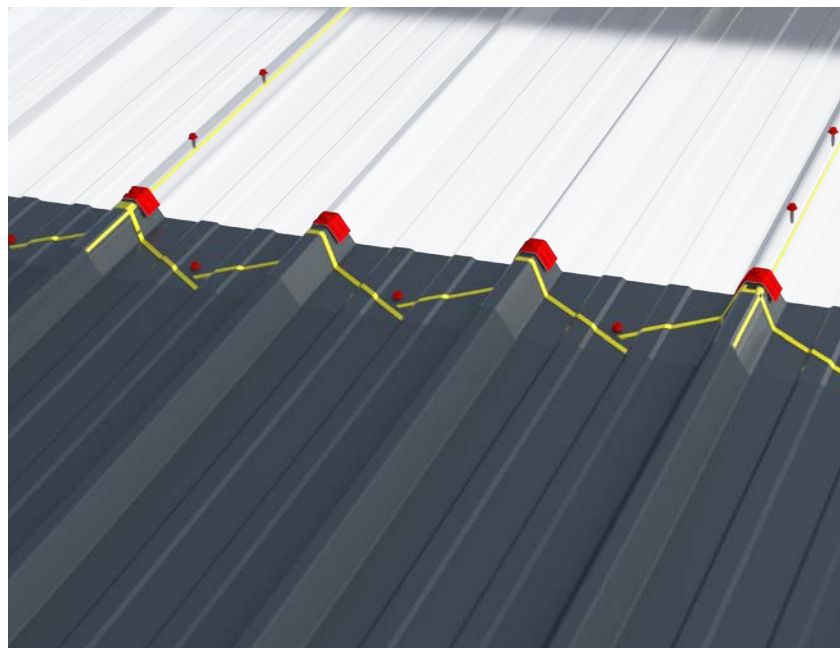
### Roof application

- The main fixings must be placed with appropriate saddle washers on each crowns.
- The side lap must be fixed with stitching's screws with a maximum of 500mm center.
- The fasteners must be installed at least at 50 mm from the edge of the sheets.
- To ensure expansion of the polycarbonate sheets, the sheets must be pre-drilled with bores having a diameter that is 4 to 6 mm wider than the selected screw.
- The fastening points must be symmetrical.
- Fastening shall be done without overly tightening the sheets.
- The transversal additional sealants (see installation requirements) shall be applied to the supports, just below the fastening line. To allow condensation to drain, they must be applied in a discontinuous chevron pattern in the lower part.
- The longitudinal additional sealants (see installation requirements) must be applied in a continuous pattern, preferably at the crest.

### Fixing on the crown



### Longitudinal and transversal additional sealant - detail view



## Cladding

- As a general rule, the sheets must be fastened at each rail and at each rib groove.
- For correct installation, the screw with the right sealing washer must be selected depending on the material. It must be combined with a metal plate that matches the profile.
- The sheets must also be fastened, overlapping, in the valley of the rib, with overlap screws with a distance of maximum 500 mm between them.
- This application requires, that each fixation is predrilled with diameter + 5 mm

## Related products

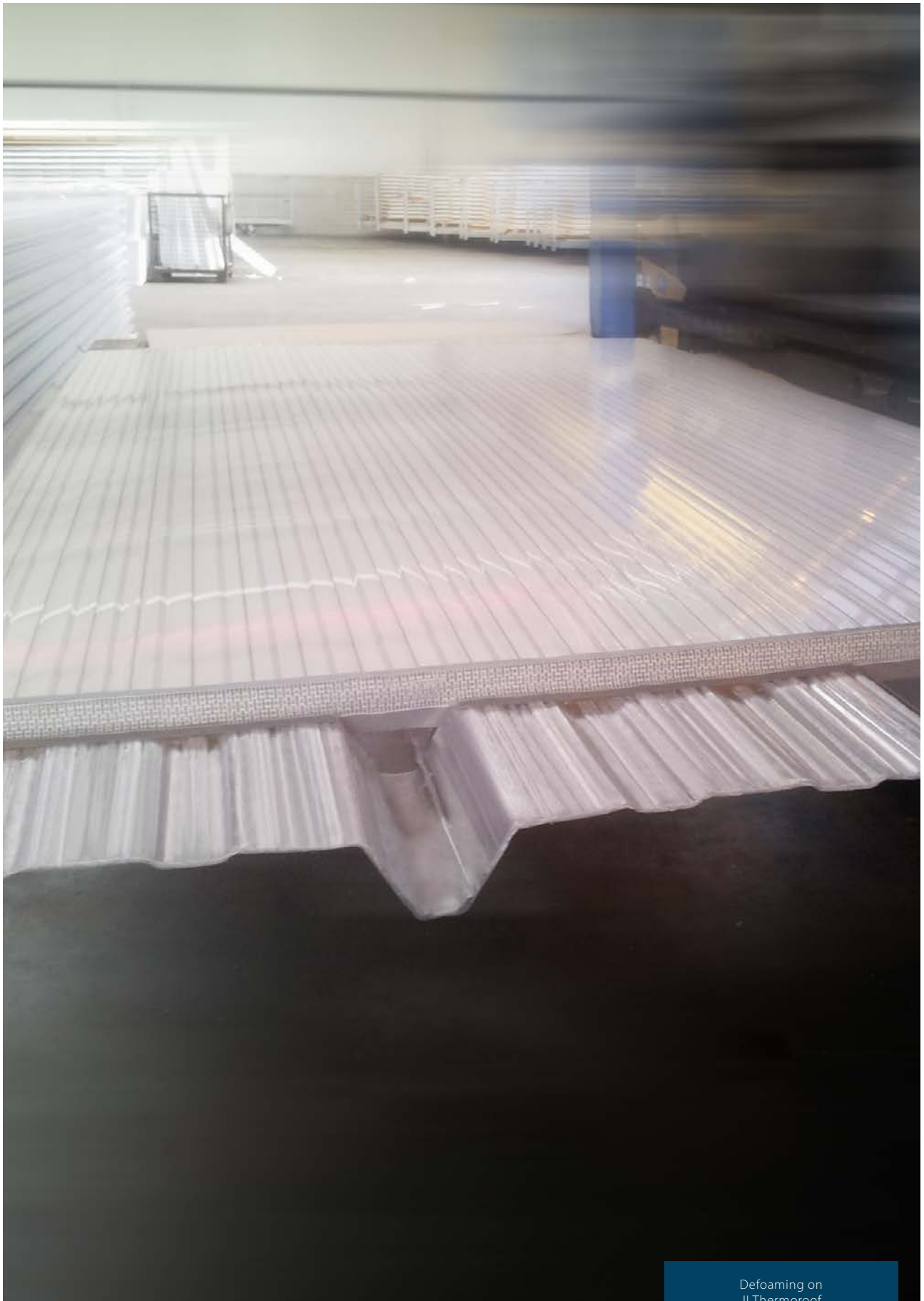
**Joris Ide** stocks a full range of finishing accessories as well as fasteners and additional sealants for use with the **Light Solutions** range. However, if the client decides to use accessories that were not supplied by Joris Ide, the latter shall be responsible for having them validated for this use by their manufacturers.



**Warning:** Polycarbonate is incompatible with PVC and Plastisol coatings. In this case, the contact areas must be protected with site applied butyl tape.



Light solutions for tertiary buildings

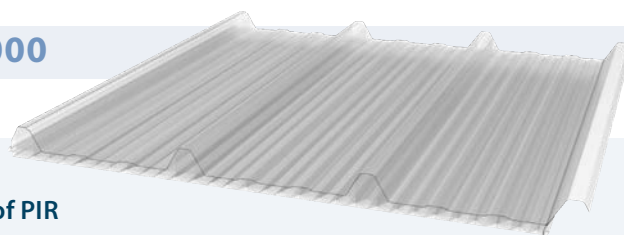


Defoaming on  
JI Thermorooft

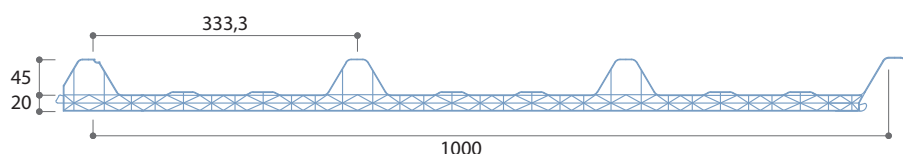


## Translucent sheets

### JI Thermorooft 20 Polycarb 45-333-1000



This polycarbonate lighting solution is compatible with our **JI 45-333-1000 Roof** profile as well as with our **JI Roof PIR** sandwich panel. Extruded as one single panel, the product is very rigid. Finally, it also provides diffused natural lighting.



Article	Thickness (mm)	Weight (kg/m <sup>2</sup> )	U (W/m <sup>2</sup> .K)
6144	20	3,30	1,58

## Technical characteristics

Standard length	2600 to 13600 mm in stock (in 500 mm increments)
Cutback	from 50 mm (max. 200 mm)
Material	polycarbonate
Recommended span	up to 1500mm

### Reference standards

Tests	EN 16153
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### Core

Certifications	panel fire classification: B-s1, d0
Use	translucent

### Performances

Shock resistance	SB1200 (only with mounted steel strip, please contact sales department)
Non-fragility classification	class B as per ACR M 001 (only with mounted steel strip, please contact sales department)
Air permeability	< 10 m <sup>3</sup> /(h.m) at 50 Pa
Water permeability	No leaks observed up to 600 Pa (Class B)
Thermal expansion	0,065 mm/(m.K)
Watervapour permeability	3,8 x 10 <sup>-5</sup> mg/(m.m.h.Pa)
Sound insulation	21 dB
Light transmittance (Tv)	64% (according to ASTM D1003)
Solar direct transmittance (Te)	56%
Solar factor (g)	63%

### Benefits

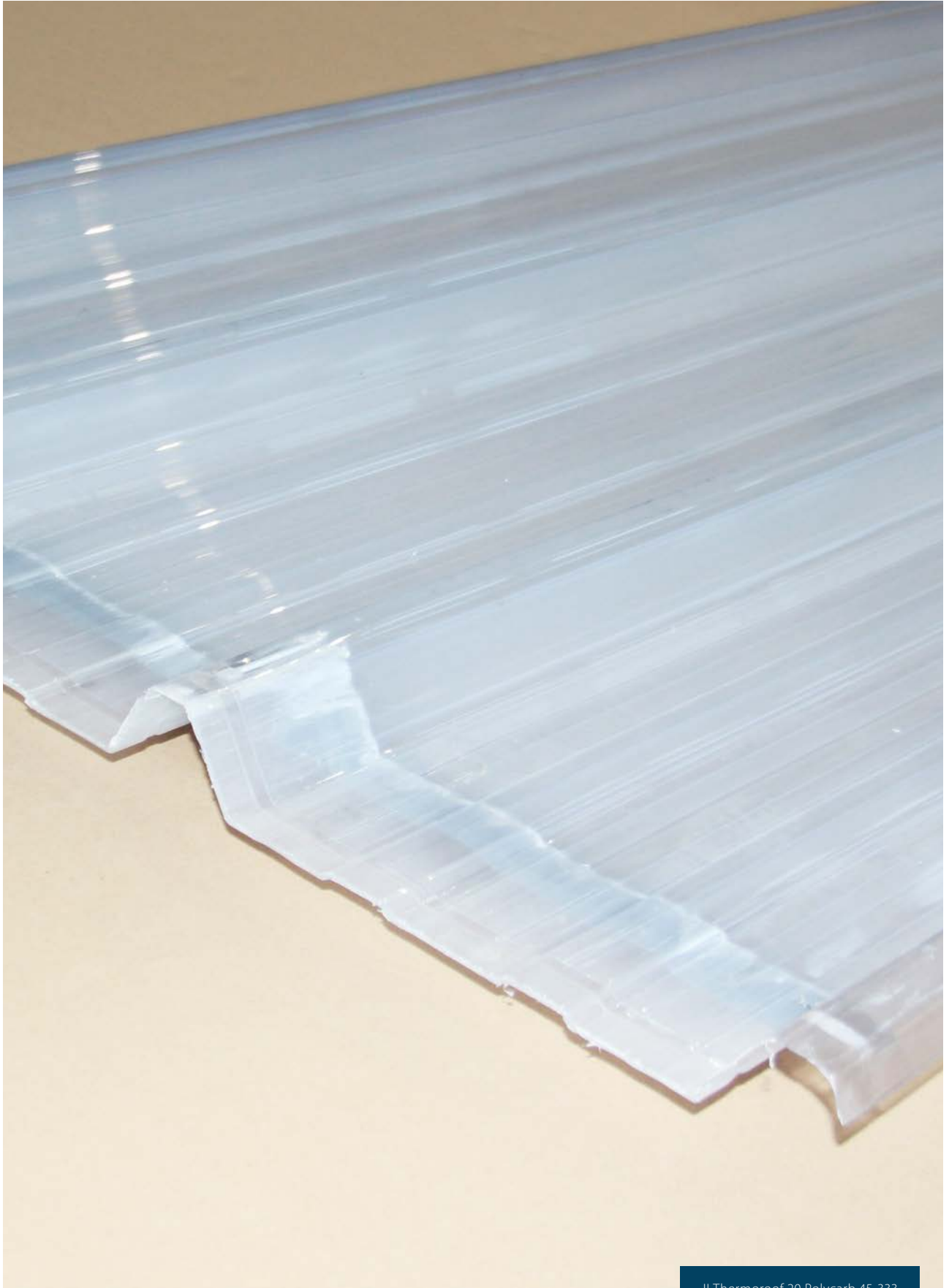
- good thermal insulation as per EN ISO 12567-1
- easy to combine with JI Roof Plus (JI 45-333-1000) JI Roof PIR (JI 45-333-1000)
- transparency warranty 10 years

### Technical recommendations

Installation	Pre-drill (diameter + 5mm) before fastening
With cutback of 200 mm	Maximum length is 13,55 m.

*Polycarbonate is incompatible with PVC or Plastisol HPS coatings. The contact area must be protected with site applied butyl tape.*



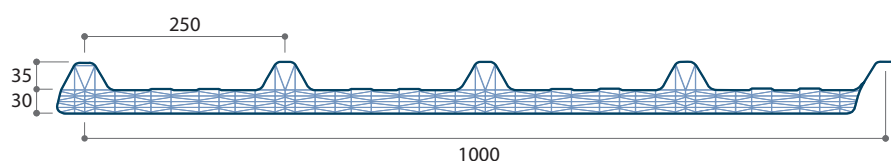
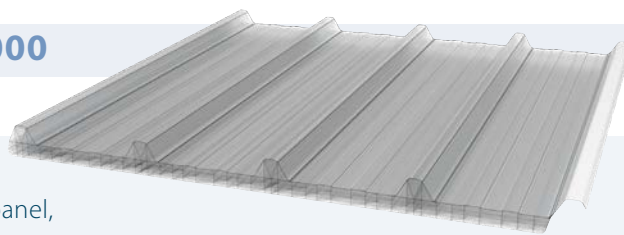


JI Thermoroof 20 Polycarb 45-333

## Translucent sheets

### JI Thermorooft 30 Polycarb 33-250-1000

This polycarbonate lighting solution is compatible with our **JI Eco PIR** sandwich panel. Extruded as one single panel, the product is very rigid. Finally, it also provides diffused natural lighting



Article	Thickness (mm)	Weight (kg/m <sup>2</sup> )	U (W/m <sup>2</sup> .K)
10153	30	4,50	1,25

## Technical characteristics

Standard length	2600 to 13600 mm in stock (in 500 mm increments) + recutting possible on request
Cutback	not applicable
Material	polycarbonate
Recommended span	up to 1500mm

### Reference standards

Tests	EN 16153
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### Core

Certifications	panel fire classification: B-s2, d0
Use	translucent

### Performances

Air permeability	< 10 m <sup>3</sup> /(h.m) at 50 Pa
Water permeability	No leaks observed up to 600 Pa (Class B)
Thermal expansion	0,065 mm/(m.K)
Water vapour permeability	3,8 x 10 <sup>-5</sup> mg/(m.m.h.Pa)
Sound insulation	22 dB
Light transmittance (Tv)	49% (according to ASTM D1003)
Solar direct transmittance (Te)	45%
Solar factor (g)	49%

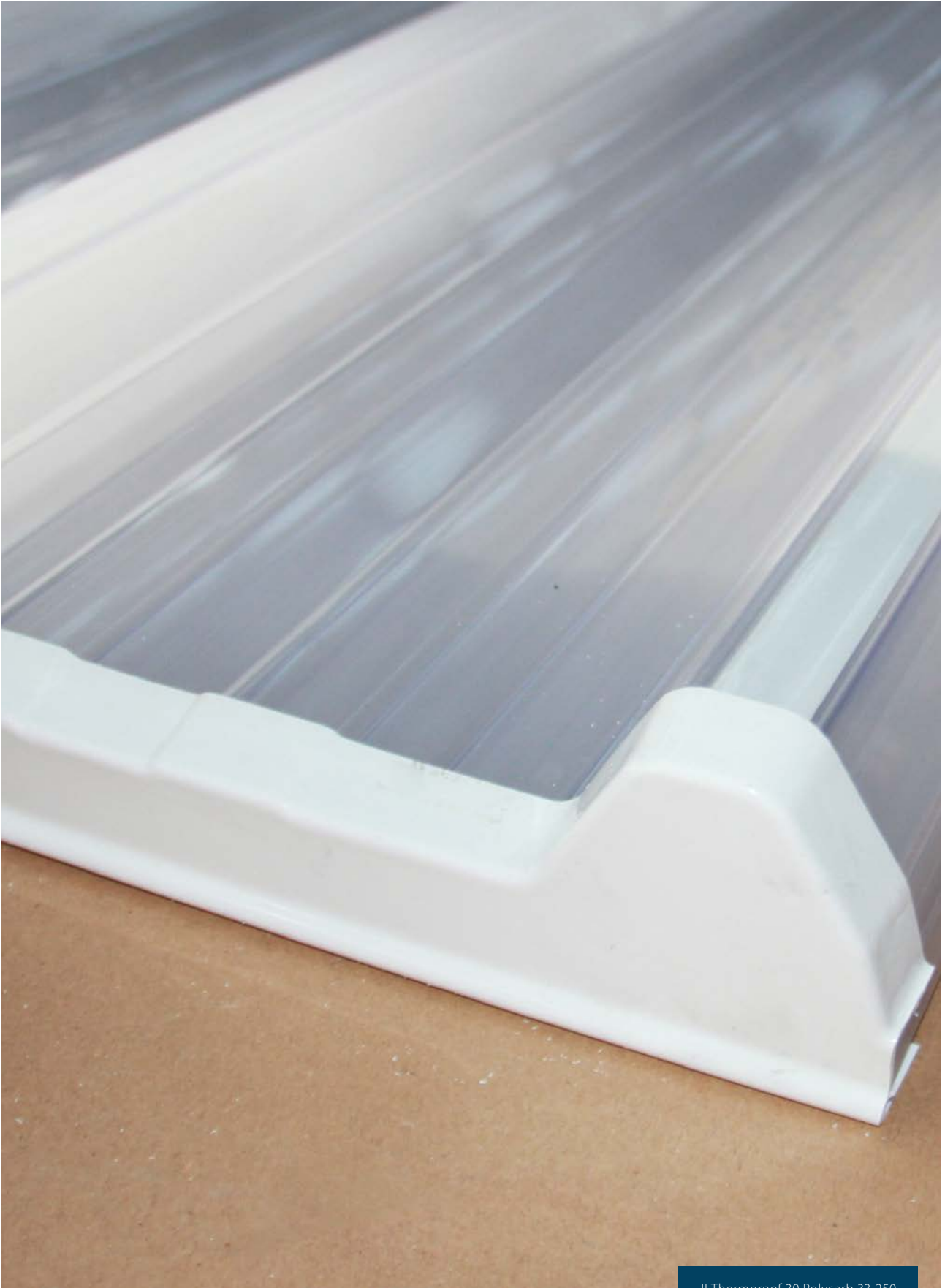
### Benefits

- good thermal insulation as per EN ISO 12567-1
- easy to combine with JI Eco PIR (JI 33-250-1000)
- transparency warranty 10 years

### Technical recommendations

Installation	Pre-drill (diameter + 5mm) before fastening
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Polycarbonate is incompatible with PVC or Plastisol HPS coatings. The contact area must be protected with site applied butyl tape.

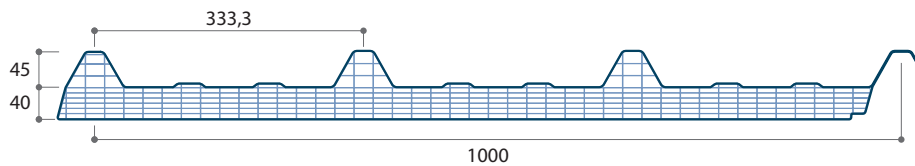
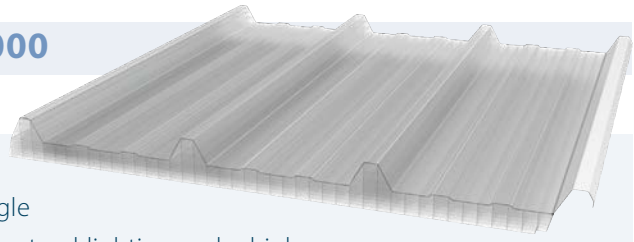


Jl Thermoroof 30 Polycarb 33-250

## Translucent sheets

### JI Thermorooft 40 Polycarb 45-333-1000

This polycarbonate lighting solution is compatible with our **JI Roof PIR** sandwich panel. Extruded as one single panel, the product is very rigid. It also provides diffused natural lighting and a high thermal performance. Given the increased thickness, this product is definitely the best technical solution in our lighting range.



Article	Thickness (mm)	Weight (kg/m <sup>2</sup> )	U (W/m <sup>2</sup> .K)
9354	40	4,50	0,95

## Technical characteristics

Standard length	2600 to 13600 mm in stock (in 500 mm increments) + recutting possible on request.
Cutback	from 50 mm (max. 200 mm)
Material	polycarbonate
Recommended span	up to 1500mm

### Reference standards

Tests	EN 16153
-------	----------

### Core

Certifications	panel fire classification: B-s2, d0
Use	translucent

### Performance

Shock resistance	SB1200
Non-fragility classification	class B as per ACR M 001
Air permeability	< 10 m <sup>3</sup> /(h.m) at 50 Pa
Water permeability	No leaks observed up to 600 Pa (Class B)
Thermal expansion	0,065 mm/(m.K)
Water vapour permeability	3,8 x 10 <sup>-5</sup> mg/(m.m.h.Pa)
Sound insulation	21 dB
Light transmittance (Tv)	53% (according to ASTM D1003)
Solar direct transmittance (Te)	51%
Solar factor (g)	57%

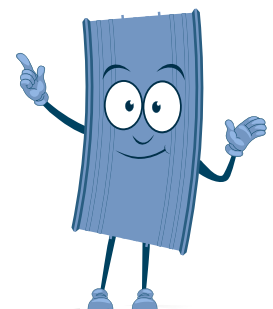
### Benefits

- good thermal insulation according to EN ISO 12567-1
- easy to combine with JI Roof Plus (JI 45-333-1000) JI Roof PIR (JI 45-333-1000)
- Transparency warranty 10 years

### Technical recommendations

Installation	Pre-drill (diameter + 5mm) before fastening
With cutback of 200 mm	Maximum length is 13,55 m.

U value  
0,95 W/m<sup>2</sup>.K



Polycarbonate is incompatible with PVC or Plastisol HPS coatings. The contact area must be protected with site applied butyl tape.





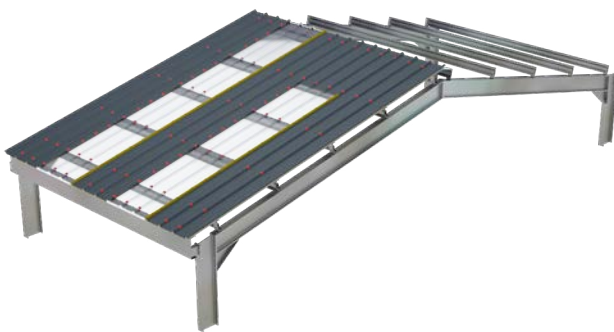
Jl Thermoroof 40 Polycarb 45-333

## Mounting of multiwall transluents (JI Thermoroof)

The JI Thermoroof Polycarb products can be mounted in two different ways.

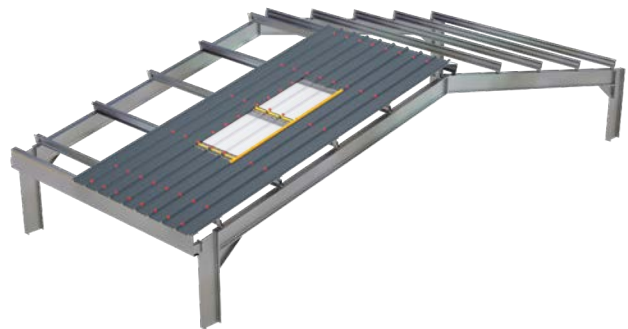
### ① Mounting from gutter (to ridge)

JI Thermoroof Polycarb without cutback and with endcap.

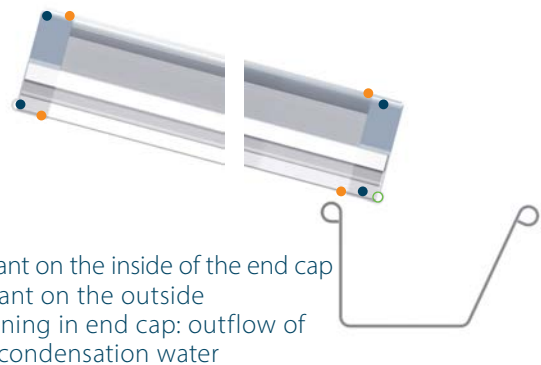


### ② Mounting between two panels

JI Thermoroof Polycarb with cutback.



In rooms with a higher relative humidity and large temperature differences, it is recommended to install the JI Thermoroof to the gutter ①. At high relative humidity, condensation may form in the channels of the rooflight, resulting in droplet formation. Due to the placement in the gutter, the accumulated moisture can leave the rooflight via the end cap designed for this purpose. The moisture then drips through the channel provided for this purpose into the gutter instead of into the building.



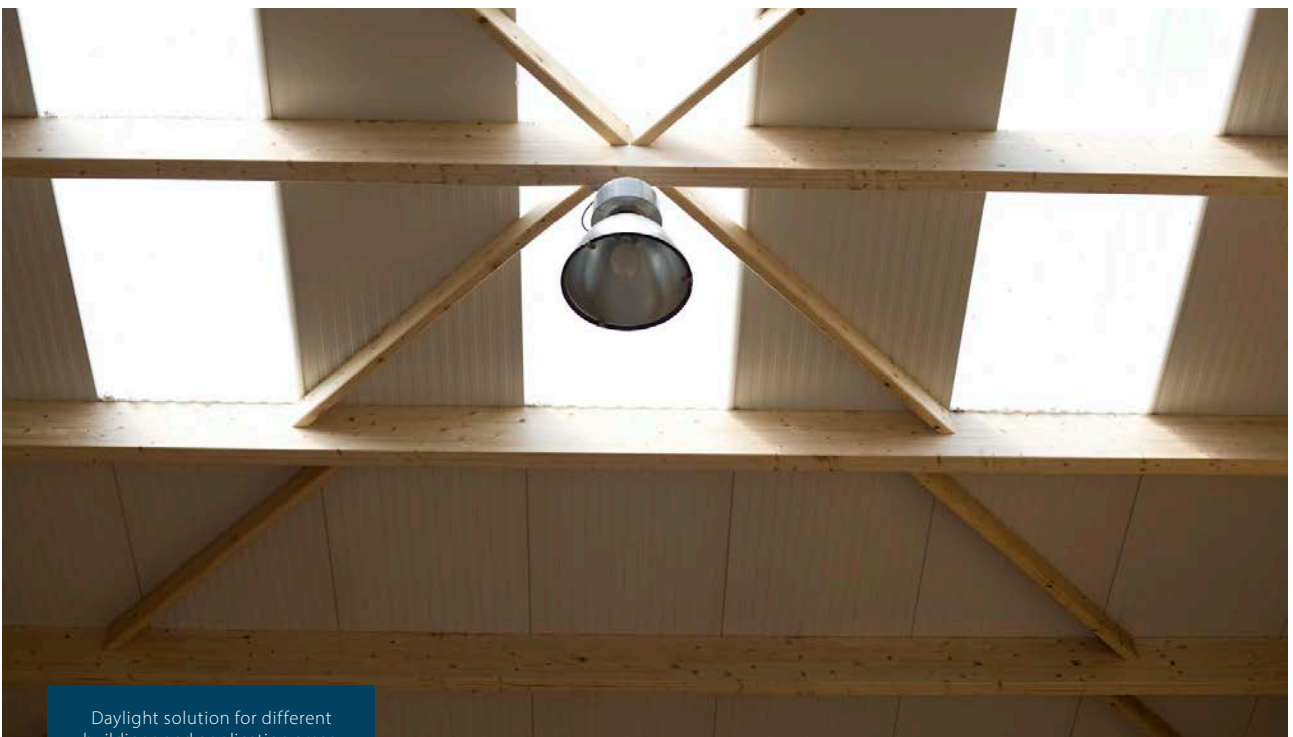
The end caps can be attached with JI Thermoroof Polycarbonate sealant. The sealant must be applied carefully and so that it does not end up in the end cap. If the end cap is blocked, the moisture cannot escape from the JI Thermoroof!

With a small temperature difference and normal relative humidity, it is sufficient to tape the ends of the material with a 'perspiring' tape. Then a moisture accumulation in the material will dry out again automatically. The JI Thermoroof Polycarb then does not have to reach into the gutter, but can be placed overlapping over an underlying JI Roof PIR. ② The defoaming, also called cutback, is realized with a special production technique. This defoaming enables a flawless transition between the PIR panel and the polycarbonate rooflight.





Combination of JI 45-333-1000 profile roof and light panels.



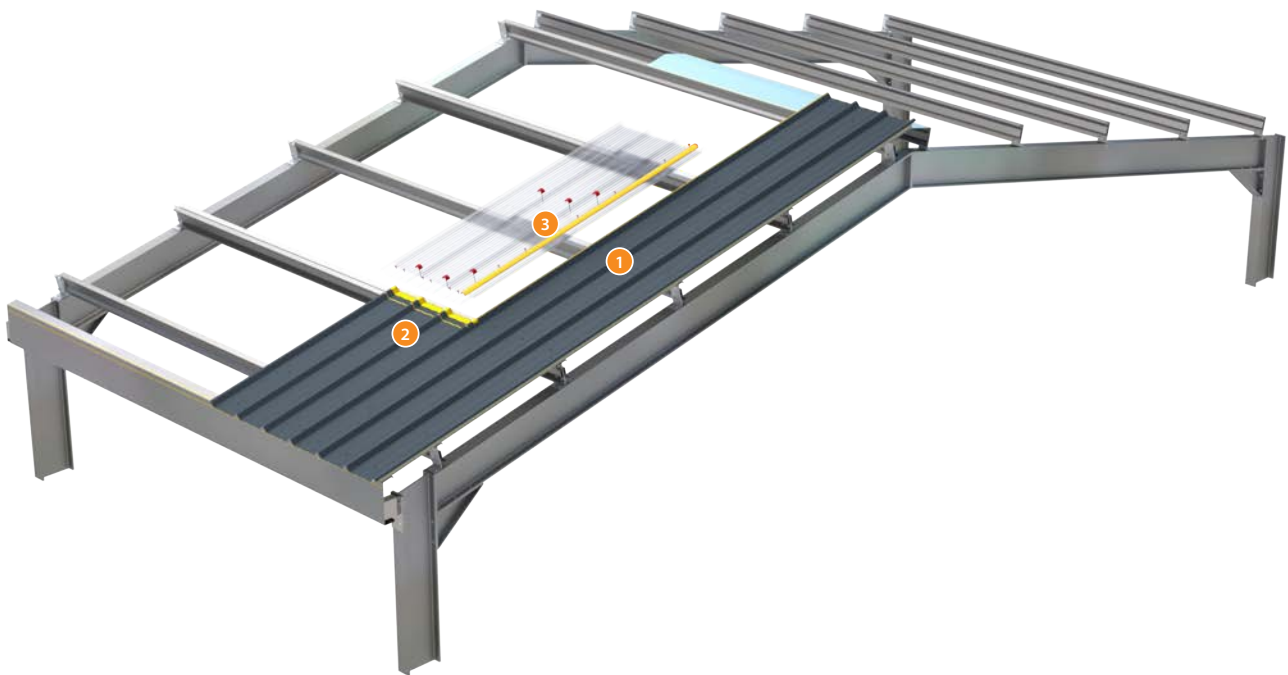
Daylight solution for different buildings and application areas.

## Installation advice for JI Thermoroof Polycarb

The JI Thermoroof Polycarb is the perfect solution for a natural and bright environment inside your building. This product is fully compatible with the JI Roof PIR panel as it can be adapted to all the thicknesses. This product provides a thermal performance which is line with the thermal requirements of Building Regulation part L2 (with U-values from 0.95 to 1.58 W/m<sup>2</sup>.K)

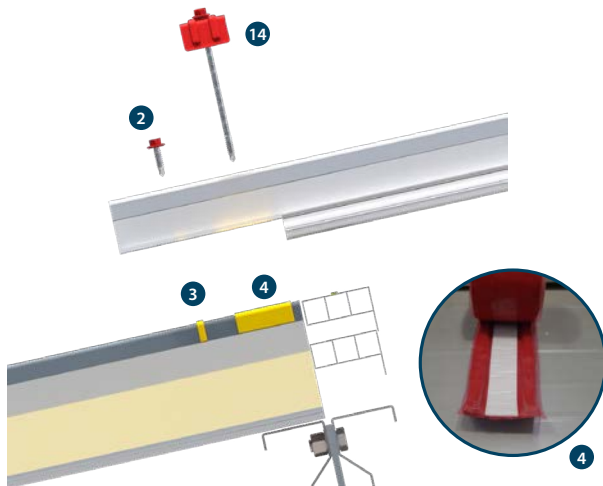


The panels must be placed from eaves to ridge and from right to left as standard (side lap on the other side can be produced on demand). The JI Thermoroof Polycarb must be placed on the same order as any other panel. The panels are to be placed as indicated with ①, ②, and ③.



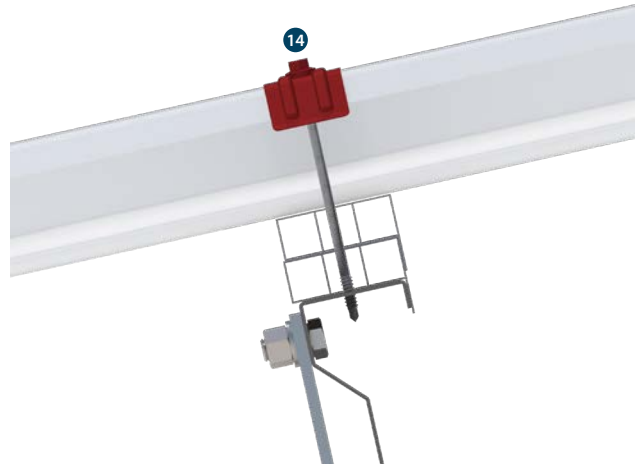


## Overlap - Rooflight over Panel



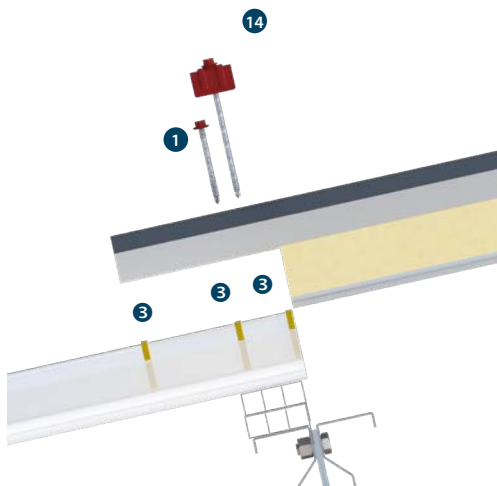
Overlap of JI Thermoroof Polycarb on JI Roof panel with a minimum of 150 mm. Main fastener – crown fixing 14 on each crown. 2 x stitcher screws 2 on each valley at 50 mm from edge. 1 x butyl tape air sealant (6 mm x 5 mm) 3 and 1 x butyl-PE-butyl tape air sealant (50 mm x 8 mm) 4 applied on panels and 1 x applied on spacer.

## Continuous Rooflight



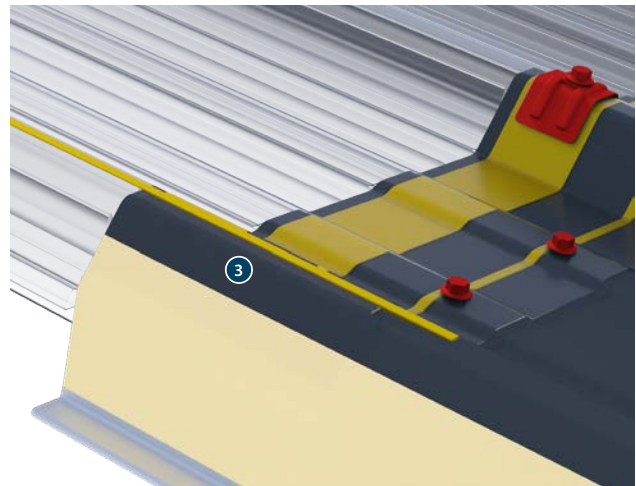
JI Thermoroof Polycarb fixed to purlin through spacer with main fastener – crown fixing 14 on each crown.

## Overlap - Panel over Rooflight



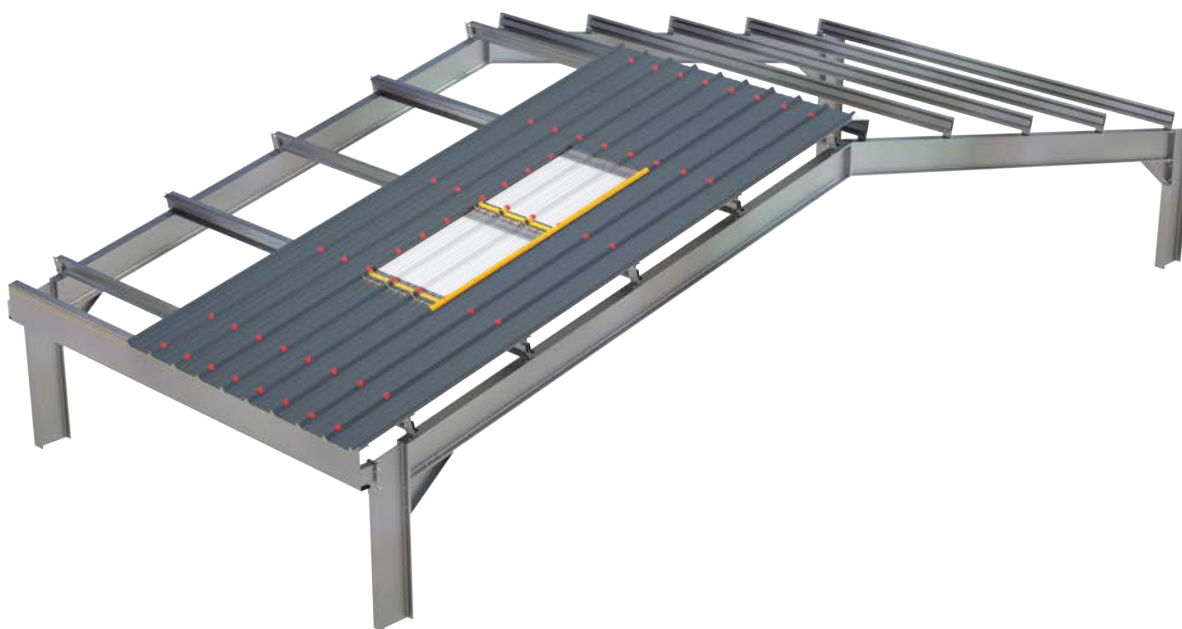
Overlap of JI Roof PIR panel on JI Thermoroof Polycarb with a minimum of 150 mm. Main fastener – crown fixing 14 on each crown. Main fastener 1 in each valley. 3 x strips of butyl tape air sealant 6 mm x 5 mm 3 applied on JI Thermoroof Polycarbs.

## Overlap - Rooflight over Panel

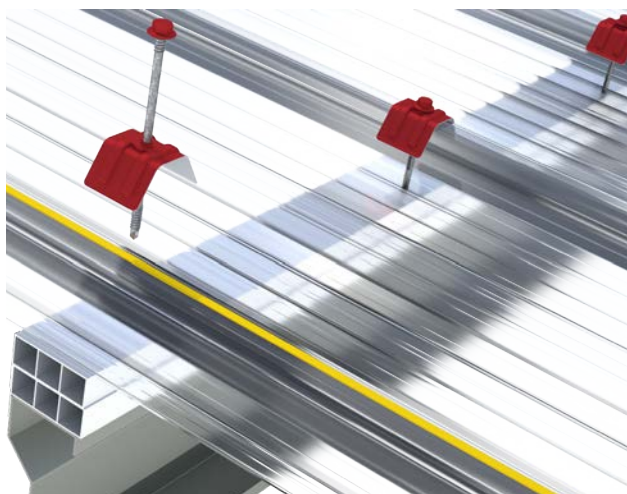


Additional butyl tape air sealant 3 overrunning 60-70 mm after end on JI Thermoroof Polycarb as illustrated.

## Installation advice for JI Thermoroof Polycarb

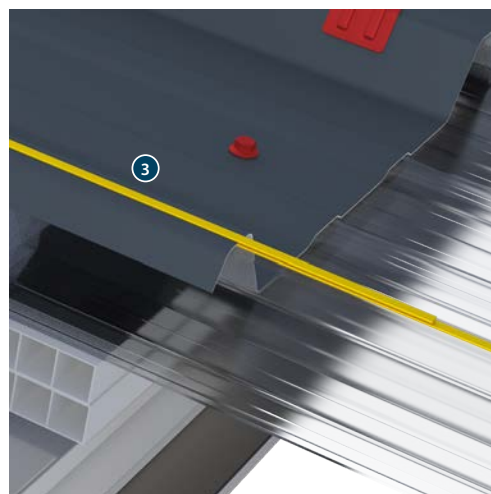


### Continuous Rooflight



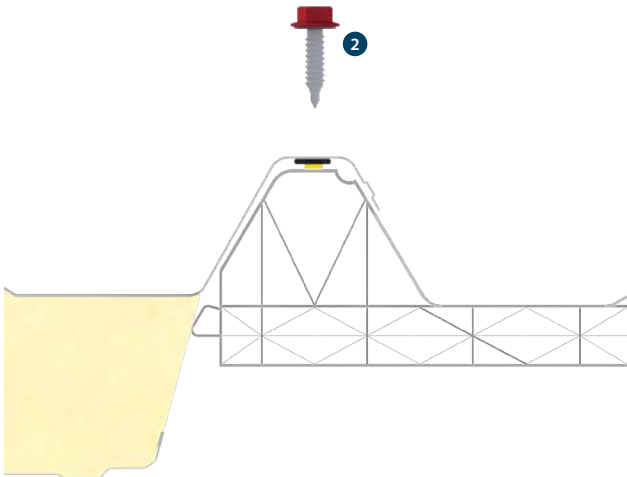
A saddle washer should be used on every main fixing.

### Overlap - Panel over Rooflight



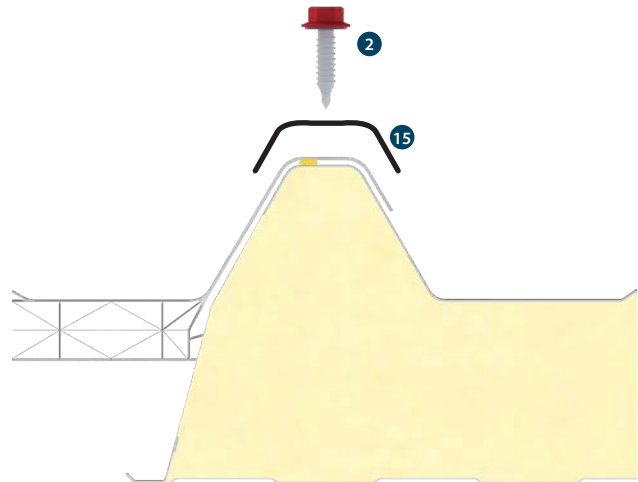
Additional butyl tape air sealant 6 mm x 5 mm ③ overrunning 60-70 mm after end on JI Roof PIR as illustrated.

### Side lap - Panel over Rooflight



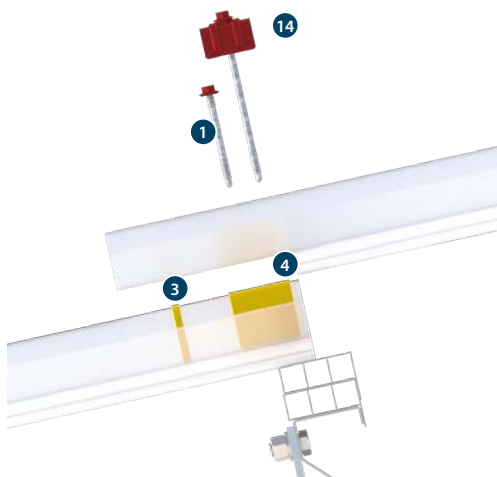
The side lap is protected with a factory applied sealant. It is recommended to use additional gun-grade sealant (site applied) ⑦ on coastal site. Stitcher screws ② at 450 mm.

### Side lap - Rooflight over Panel



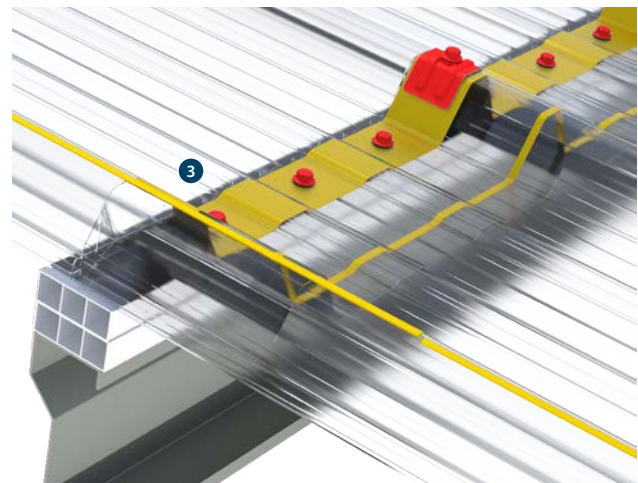
1 x strip of butyl tape air sealant 6 mm x 5 mm ③ applied between JI Thermoroof Polycarb and JI Roof PIR on weather side. Stitcher screws ② at 450 mm. The metallic cover strip ⑮ means to reinforce the polycarbonate side lap.

### Overlap - between Rooflights



Overlap of JI Thermoroof Polycarbs with 150 mm. Main fastener – crown fixing on each crown ⑭. Main fastener in each valley ①. 1 x butyl tape air sealant (6 mm x 5 mm) ③ and 1 x butyl-PE-butyl tape air sealant (50 mm x 8 mm) ④ applied on JI Thermoroof Polycarb.

### Overlap - between Rooflights



Additional butyl tape air sealant ③ overrunning 60-70 mm after end of JI Thermoroof Polycarb as illustrated.

## JI Polycarbonate, single skin, 1 mm

### JI Polycarbonate - 1 mm - 33-250-1000

Thickness (mm)	Weight (kg/m <sup>2</sup> )	Temperature range
1,00	1,37	-40 / +120 °C



### JI Polycarbonate - 1 mm - 45-333-1000

Thickness (mm)	Weight (kg/m <sup>2</sup> )	Temperature range
1,00	1,49	-20 / +100 °C



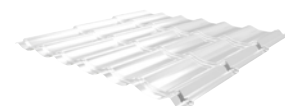
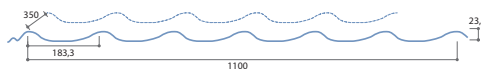
### JI Polycarbonate - 1 mm - 37-250-1000

Thickness (mm)	Weight (kg/m <sup>2</sup> )	Temperature range
1,00	1,38	-40 / +120 °C



### JI Polycarbonate - 1 mm - 24-183-1100

Article	Thickness (mm)	Standard length
4000315	1,00	1230 mm



Light solutions





## Technical features

Material polycarbonate

### Reference standards

Tests EN 1013

### Core

Certifications panel fire classification B-s1,d0  
Usage exterior panel

### Performance

Thermal expansion 0.065 mm/(m.K)  
Extreme hail impact resistance  $\varnothing$  20 mm,  $v > 21$  m/s  
Non-fragility class after testing

### Technical recommendations

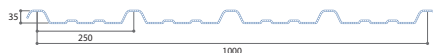
Installation Pre-drill (diameter + 2mm) before fastening



## JI Polycarbonate, double skin, 2,5 mm

### JI Polycarbonate - 2,5 mm - 33-250-1000

Article	Thickness (mm)	Weight (kg/m <sup>2</sup> )	U (W/m <sup>2</sup> .K)
10792	2,50	1,40	4,50



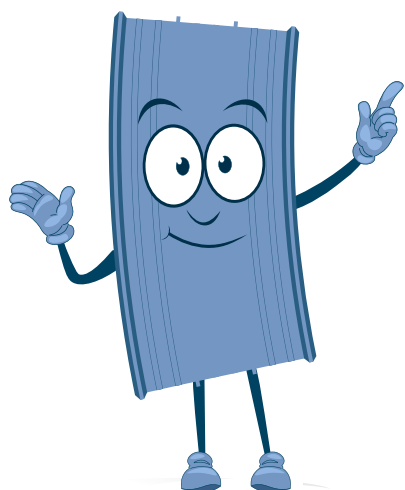
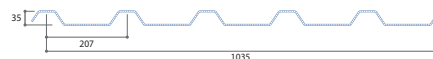
### JI Polycarbonate - 2,5 mm - 45-333-1000

Article	Thickness (mm)	Weight (kg/m <sup>2</sup> )	U (W/m <sup>2</sup> .K)
10793	2,50	1,40	4,50



### JI Polycarbonate - 2,5 mm - 35-207-1035

Article	Length (mm)	Thickness (mm)	Weight (kg/m <sup>2</sup> )	U (W/m <sup>2</sup> .K)
4033551	6000	2,50	1,45	4,50



**New!**

**U value of 4.50W/m<sup>2</sup>.K**

(For purposes of comparison: polycarbonate  
1 mm = 160 W/m<sup>2</sup>.K)

## Technical features

Standard length  
Material

6000 and 7600 mm recutting possible  
polycarbonate

### Core

Certifications  
Usage

panel fire classification  
exterior panel

B-s1,d0

### Performance

Transparency  
Heat-welded at both ends  
Thermal expansion  
Temperature range  
Extreme hail impact resistance  
Non-fragility class after testing.

83% as per ASTM D1003  
yes - profile 35-207-1035 only on 6000 and 7600 mm  
0.065 mm/(m.K)  
-40 / +120 °C  
ø 20 mm, v > 21 m/s

### Benefits

- good thermal insulation as per EN ISO 12567-1
- transparency warranty 10 years
- warranty against hail 10 years

### Technical recommendations

Fastening

Pre-drilling prior to installation by adding 4 to 6 mm to the selected screw

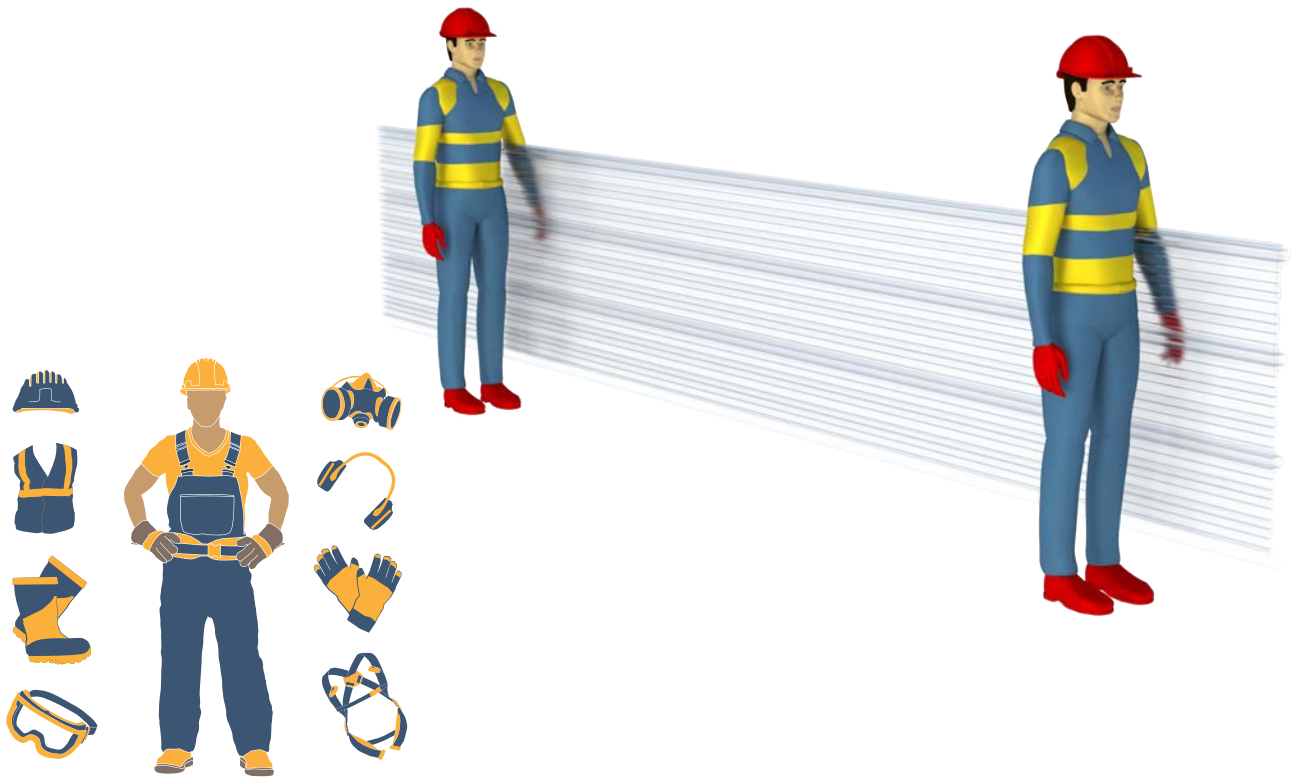
Light Solutions for all kind of buildings.



## Handling, storage, and maintenance

### Handling

Particular care must be taken when handling the products during unloading and installation. The products must be handled and carried vertically. It is forbidden to transport and handle them horizontally, at the risk of deforming them and altering their aesthetic and technical appearance. Please find more information in our brochure "MR052 Handling and Storage".



### Storage

Products must be stored in a dry place away from direct sunlight. Stacked rooflights can become very hot due to the magnifying effect and will degrade when exposed to sunlight for long periods of time. The products are also susceptible to wind gusts because of their lighter weight. It is therefore advisable to keep the packaging closed and to secure the packages.

The packages must be protected with a suitable tarpaulin system. The packages must be stored slightly inclined to evacuate any water.

Some of the products are covered with protective film. This film can be peeled off. In order to facilitate removal of the film after installation and prevent scratching, we recommend installing all JI Light Solutions products that are covered with film within two weeks from the date of delivery.

Avoid putting weight on the products. Prolonged load-bearing may cause damage.

Also avoid any direct contact between the products and the ground. The products should always be stored at a slight angle. This allows any water to drain away.

### Maintenance

Rooflights must always be cleaned with products that do not damage the material.

Avoid using brushes, steel wool and other abrasive or sharp products so as not to affect the UV protection. Do not clean in very hot or sunny weather.

Please also remember not to walk directly on JI Light Solutions products and sheets. If necessary, install decking to prevent damage to the product and to ensure the workers' safety.

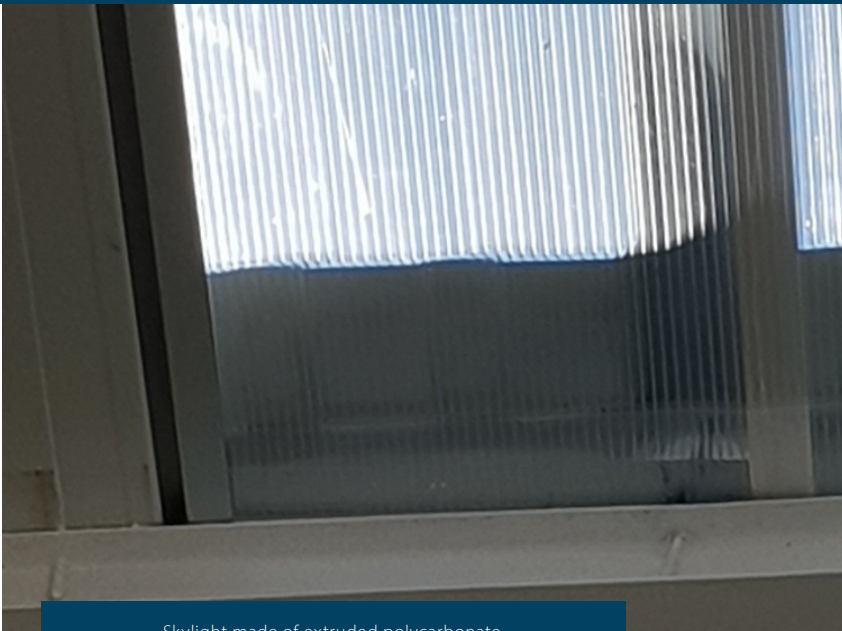




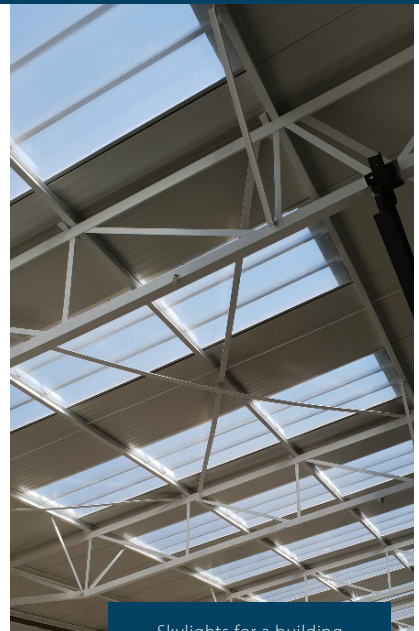
JI Thermoroof 40  
Polycarb 45-333



A quality lighting solution for a sustainable building.



Skylight made of extruded polycarbonate.

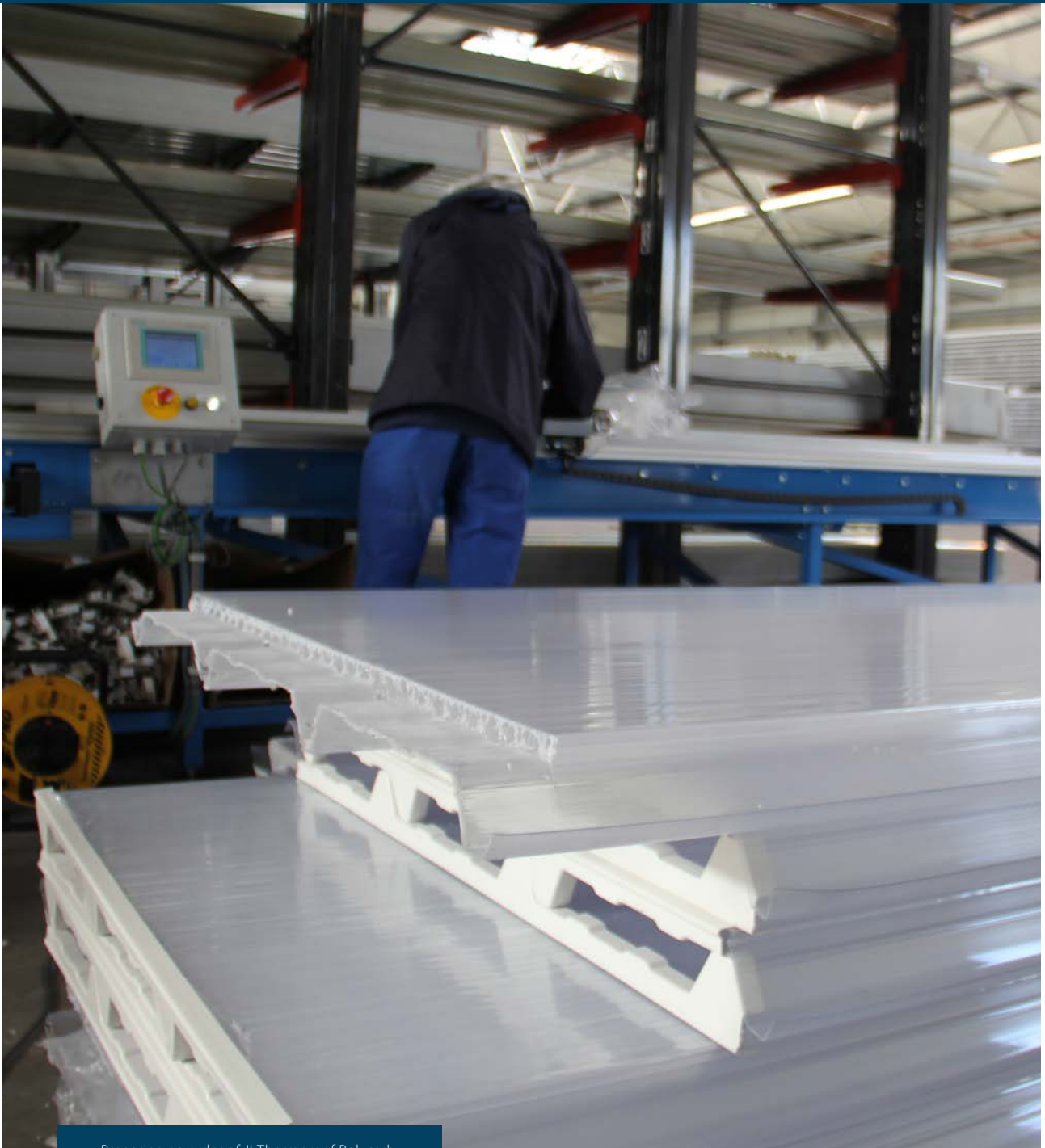


Skylights for a building



Skylights for agricultural building.





Preparing an order of JI Thermorooft Polycarb.



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With more than 30 years of experience, Joris Ide represents a guarantee of quality in the construction market. We provide solutions in all fields: acoustic, aesthetic, fire, thermal. Joris Ide, the essential partner for all your projects.



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