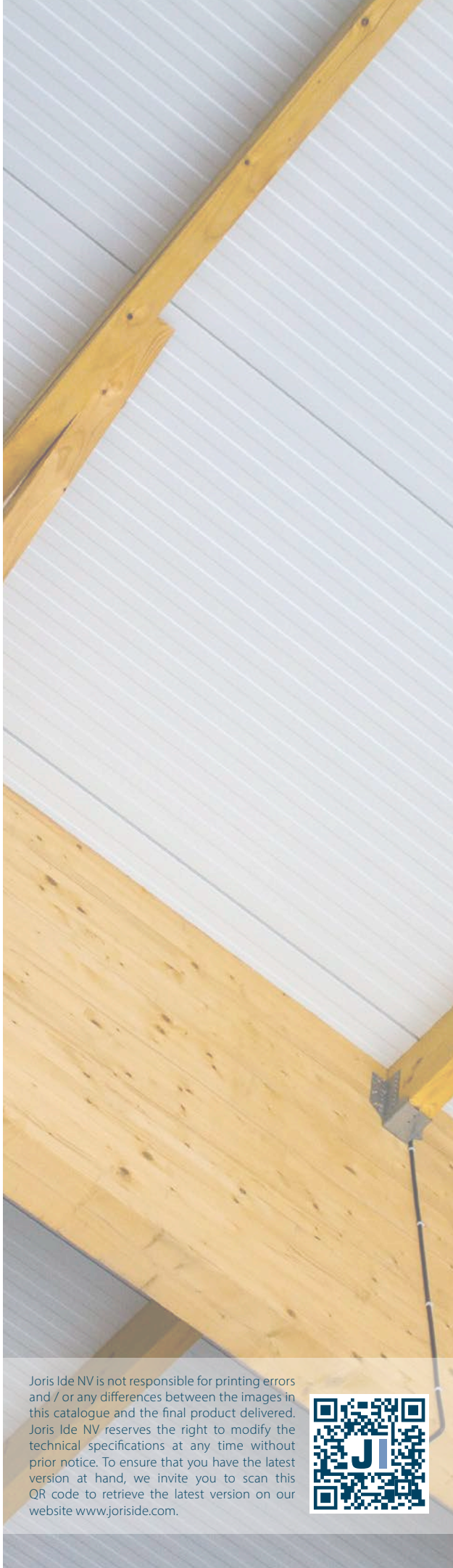




JI ROOF PIR

MR046 / 13 JUL 2023



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JI ROOF PIR

Insulated panels (PIR core)

The JI Roof PIR is a very diverse user product for not only Industrial, but also Residential or Agricultural Application.

Due to its trapezoidal outer sheet it is ideal to take additional loads such as solar panels or even roof tiles.

The JI Roof PIR can be produced in a multitude of lengths.



The JI Roof PIR can be produced in many colours and lengths.

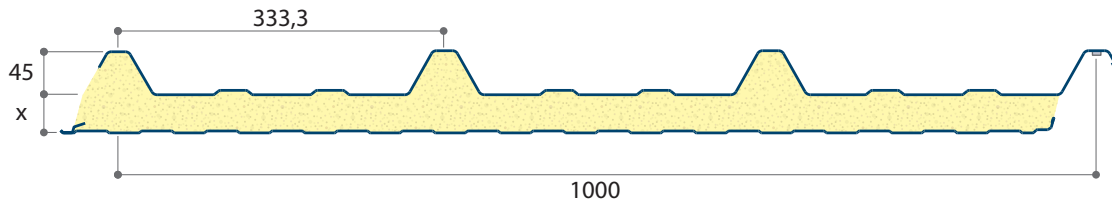


JI Roof PIR in agricultural projects.

The Joris Ide group, with more than 3 decades of experience, processing 419.000 tonnes of steel per year and have 16 production sites in over 8 countries. With the help of more than 1230 employees Joris Ide is your dedicated partner.

Description

The JI Roof PIR Trapezoidal Insulated Roof Panel is used for pitched roofs, horizontal and vertical wall applications and as external insulated cladding panel for industrial, commercial and public buildings. The minimum pitch to be applied is 4° or more after deflection.



Weight and thermal performance

| Core thickness (mm) | 30* | 40 | 60 | 80 | 100 | 120 | 150 |
|------------------------|------------|------------|------------|------------|------------|------------|------------|
| Overall thickness (mm) | 75 | 85 | 105 | 125 | 145 | 165 | 195 |
| U-value (W/m²K) | 0,68 | 0,52 | 0,36 | 0,25 | 0,20 | 0,16 | 0,14 |
| Weight (Kg/m²) | 10,38 | 10,76 | 11,52 | 12,28 | 13,04 | 13,78 | 14,94 |
| Rw (dB) | 24 (-2;-4) | 24 (-2;-4) | 24 (-1;-4) | 25 (-2;-4) | 26 (-2;-5) | 26 (-2;-4) | 27 (-2;-5) |

Calculated in accordance to European product standard EN 14509:2013.
* 30 mm is not FM approved

Maximum recommended span length

| | 30 | 40 | 60 | 80 | 100 | 120 | 150 |
|---------------|------|------|------|------|------|------|------|
| Single span | 1,48 | 1,80 | 2,32 | 2,61 | 2,70 | 2,81 | 2,93 |
| Double span | 1,22 | 1,80 | 2,32 | 2,61 | 2,70 | 2,81 | 2,93 |
| Multiple span | 1,22 | 1,80 | 2,32 | 2,61 | 2,70 | 2,81 | 2,93 |

recommended span length based on 2,00 KN/m² - assumptions of span/load table must be taken into account.

System key benefits

- Applicable as roof and wall panel for renovations and new buildings.
- Easy handling, mounting and fitting.
- Composite panel allows a faster installation time than standard built-up systems.
- JI Roof PIR is produced according to the EN ISO 9001:2015.
- The JI Roof PIR is CE-marked.
- Wide range of colours and coatings available for top sheet according to your project (please consult our Colorflow).
- Inner sheets with different colours available on request
- Production facility ISO 14001:2015 certified.
- High thermal performance PIR foam.
- Environmental sustainable PIR foam with zero ozone depletion and a low global warming potential.
- Inner sheet comes as standard in 15 µ Polyester with a RAL 9002 colour.
- JI Roof PIR is available in lengths up to 16 m. The minimum cut back is 50 mm.
- Integrated insulated polycarbonate roof lights are available.
- Matching single skin profiles in metal or polycarbonate are available.
- Factory applied weather seals to the side lap (FAWS)
- FM approved



Materials

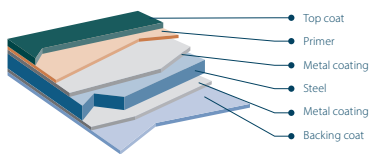
A1. External weather sheet

Joris Ide offers one of the widest ranges in coatings and colours which can be defined per project and building requirements. Please consult our colorflow brochure for detailed information.



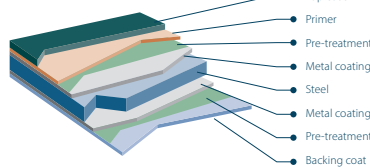
Essential 25 μ

5 microns primer + 20 microns top coat



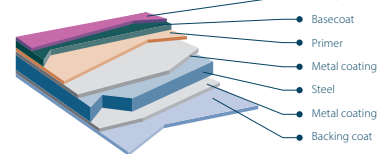
HPS 200 Ultra® 200 μ

200 microns + Scintilla® embossing



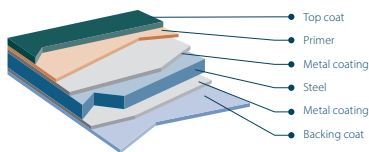
Ultra 75

70 - 75 μ (primer + top coat)



Ultra 60

25 microns primer + 30 microns top coat



A2. Internal liner sheet

Internal conditions of a building can vary; Joris Ide can offer a wide range to suit heavy-duty environments such as humidity and ammoniac. Please consult our colorflow brochure for detailed information.

- 15 μ Polyester RAL 9002 (standard)
- 25 μ Polyester
- Colorfarm 35 μ
- PVC Foodsafe 150 μ PVC
- HPS 200 μ

A3. Insulation core

Jl Roof PIR insulated panels are made with a high thermal performance and environmental sustainable PIR foam with zero ozone depletion and a low global warming potential.

Confidex® Guarantee by Tata Steel

For over 20 years the Confidex® Guarantee from Tata Steel has remained best in class. Confidex® is the product performance guarantee for Colorcoat HPS200 Ultra®, when used in an external conventional building envelope application namely roof and wall cladding using single skin, built-up or composite panel construction in industrial and commercial buildings. Confidex® offers the longest and most comprehensive guarantee for pre-finished steel in Europe.

Key features include;

- Extended guarantee cover for up to 40 years on Colorcoat HPS200 Ultra®.
- No requirement for annual inspections or maintenance to validate the guarantee.
- Covers cut edges produced under factory controlled conditions for the entire guarantee period.
- Backed by years of worldwide product testing and real world experience.
- Provides cover for roof pitches down to 1° and no distinction between different roof pitches above that.
- Offered directly to the building owner and provides a contractual relationship between Tata Steel and the building owner.
- Fully transferable should building ownership change.
- Helps reduce the level of risk for each part of the supply chain.
- Quick and simple online registration form.

Other warranties

With Confidex® registration



Without Confidex® registration



Whilst Confidex® has always been restricted to the weathering performance of the external cladding, Tata Steel has recognised the growing emergence of demanding internal environment projects, such as energy from waste plants, and may offer a non-Confidex® warranty on a case by case basis for Colorcoat HPS200 Ultra® used internally.

Application specific warranties are also available for non-standard cladding applications; i.e residential roofs, flashings and sectional roller shutter doors.



Please have a look at our customer portal at www.joriside.com for more information about the guarantee.

Regions covered by the Confidex® Guarantee



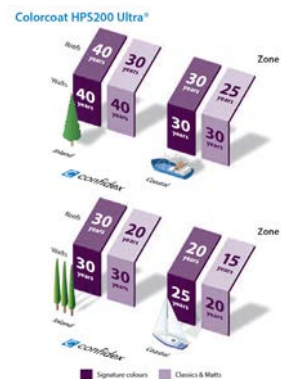
KEY

- Northern Europe – Zone 1
- Southern Europe – Zone 2
- For areas outside of Confidex® zones please contact Tata Steel for more information.

Notes

- Figures under the Coastal heading are for buildings within 1 km of any coast.
- Full terms and conditions of the Confidex® Guarantee are on the online application form, available from www.colorcoat-online.com/registration.
- Confidex® must be registered within 3 months of the building completion date for the guarantee to be valid.
- The Confidex® Guarantee periods on the diagram above are applicable to Zone 1 and Zone 2. For more information visit www.colorcoat-online.com/confidexmap.

Colorcoat HPS200 Ultra and Confidex are trademarks of Tata Steel UK Limited.



Performance

Environmental

The JI Roof PIR corresponds to the BRE Global Green Guide online generic specification Galvanised steel rafters and joists, composite profiled roof cladding (steel inner lining, pentane blown PIR insulation, coated steel outer skin) (ref. 812550001) which achieves a summary rating of A+ within pitched roofs. The production facility is ISO 14001:2015 certified.

Fire

The JI Roof PIR is classified B - s2,d0 when tested to BS EN 13501-1:2013.

| Panel | Application | | Gauge (mm) | Fire resistance i -> o | | Grade | Core |
|-------------|-------------|------|------------|------------------------|------------------|-------|------|
| | Roof | Wall | | Integrity (min) | Insulation (min) | | |
| JI Roof PIR | | ● * | 80-150 | 120 | 15 | EI15 | PIR |

* Only vertical

Construction details to obtain the classifications above

Primary fasteners:

- Wall application: Minimum 1 fixing per valley.

Secondary fasteners:

- Wall application: Side laps to be stitched at maximum 300 mm.

Secondary Supports to obtain the Ext-A15:

- The secondary support system must be a 'Fire Wall' system, which contains slotted connections and nylon washers to relieve stresses induced by thermal expansion.

Performance

Assumptions:

- The span/load table is valid for roof application. Panel self-weight has been taken into account. For intermediate values, liner interpolation may be used.
- Values have been calculated using the method described in BS EN 14509:2013 for light and medium coloured panels (Colour group I-II).
- Deflection limit for short term loads: L/200.
- The minimum required width for end and intermediate supports is 50 mm.
- Calculation of fasteners have not been included.
- In the case of double or triple span conditions, this span/load table can only be used when all spans are equal or when the difference between the spans is less than 10%.
- The span/load table gives the capacity of the panel to carry short term loads. Any creep effect due to snow accumulation or other long-term loads have not been taken into account.

Spantable Load type (kN/m²)

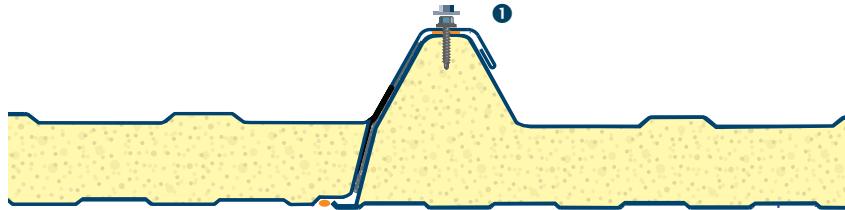
| Thickness (mm) | | | Span (m) | | | | | | | | | | | | | | | | | | | |
|-------------------|----------|----------|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | | | 1,30 | 1,40 | 1,50 | 1,60 | 1,70 | 1,80 | 1,90 | 2,00 | 2,10 | 2,20 | 2,30 | 2,40 | 2,50 | 2,60 | 2,70 | 2,80 | 2,90 | 3,00 | 3,10 | 3,20 |
| 30 | Pressure | Single | 3,20 | 2,79 | 2,47 | 2,20 | 1,98 | 1,79 | 1,63 | 1,48 | 1,36 | 1,24 | 1,15 | 1,06 | 0,95 | 0,80 | 0,64 | 0,49 | 0,38 | 0,26 | | |
| | | Double | 1,93 | 1,78 | 1,66 | 1,55 | 1,45 | 1,37 | 1,29 | 1,22 | 1,17 | 1,11 | 1,06 | 1,00 | 0,94 | 0,89 | 0,83 | 0,78 | 0,73 | 0,69 | 0,65 | 0,61 |
| | | Multiple | 1,93 | 1,78 | 1,66 | 1,55 | 1,45 | 1,37 | 1,29 | 1,22 | 1,17 | 1,11 | 1,06 | 1,00 | 0,94 | 0,89 | 0,83 | 0,78 | 0,73 | 0,69 | 0,65 | 0,61 |
| | Suction | Single | 3,75 | 3,33 | 2,94 | 2,65 | 2,40 | 2,17 | 1,98 | 1,83 | 1,69 | 1,57 | 1,46 | 1,37 | 1,27 | 1,15 | 1,03 | 0,92 | 0,82 | 0,73 | 0,64 | 0,56 |
| | | Double | 3,75 | 3,33 | 2,94 | 2,65 | 2,40 | 2,17 | 1,98 | 1,83 | 1,69 | 1,57 | 1,46 | 1,37 | 1,27 | 1,20 | 1,13 | 1,06 | 1,00 | 0,95 | 0,90 | 0,86 |
| | | Multiple | 3,75 | 3,33 | 2,94 | 2,65 | 2,40 | 2,17 | 1,98 | 1,83 | 1,69 | 1,57 | 1,46 | 1,37 | 1,27 | 1,20 | 1,13 | 1,06 | 1,00 | 0,95 | 0,90 | 0,86 |
| 40 | Pressure | Single | 3,41 | 3,15 | 2,88 | 2,58 | 2,34 | 2,14 | 1,97 | 1,80 | 1,66 | 1,54 | 1,43 | 1,33 | 1,23 | 1,16 | 1,08 | 1,00 | 0,95 | 0,89 | 0,84 | 0,78 |
| | | Double | 3,41 | 3,15 | 2,88 | 2,58 | 2,34 | 2,14 | 1,97 | 1,80 | 1,66 | 1,54 | 1,43 | 1,33 | 1,23 | 1,16 | 1,08 | 1,00 | 0,95 | 0,89 | 0,84 | 0,79 |
| | | Multiple | 3,41 | 3,15 | 2,88 | 2,58 | 2,34 | 2,14 | 1,97 | 1,80 | 1,66 | 1,54 | 1,43 | 1,33 | 1,23 | 1,16 | 1,08 | 1,00 | 0,95 | 0,89 | 0,84 | 0,79 |
| | Suction | Single | 4,25 | 3,79 | 3,41 | 3,09 | 2,83 | 2,59 | 2,38 | 2,20 | 2,05 | 1,91 | 1,79 | 1,68 | 1,58 | 1,48 | 1,41 | 1,33 | 1,25 | 1,19 | 1,14 | 1,08 |
| | | Double | 4,25 | 3,79 | 3,41 | 3,09 | 2,83 | 2,59 | 2,38 | 2,20 | 2,05 | 1,91 | 1,79 | 1,68 | 1,58 | 1,48 | 1,41 | 1,33 | 1,25 | 1,19 | 1,14 | 1,08 |
| | | Multiple | 4,25 | 3,79 | 3,41 | 3,09 | 2,83 | 2,59 | 2,38 | 2,20 | 2,05 | 1,91 | 1,79 | 1,68 | 1,58 | 1,48 | 1,41 | 1,33 | 1,25 | 1,19 | 1,14 | 1,08 |
| 60 | Pressure | Single | 3,81 | 3,54 | 3,30 | 3,10 | 2,89 | 2,67 | 2,48 | 2,32 | 2,16 | 2,01 | 1,89 | 1,77 | 1,67 | 1,57 | 1,48 | 1,40 | 1,32 | 1,24 | 1,18 | 1,13 |
| | | Double | 3,81 | 3,54 | 3,30 | 3,10 | 2,89 | 2,67 | 2,48 | 2,32 | 2,16 | 2,01 | 1,89 | 1,77 | 1,67 | 1,57 | 1,48 | 1,40 | 1,32 | 1,24 | 1,18 | 1,13 |
| | | Multiple | 3,81 | 3,54 | 3,30 | 3,10 | 2,89 | 2,67 | 2,48 | 2,32 | 2,16 | 2,01 | 1,89 | 1,77 | 1,67 | 1,57 | 1,48 | 1,40 | 1,32 | 1,24 | 1,18 | 1,13 |
| | Suction | Single | | 4,85 | 4,43 | 4,09 | 3,78 | 3,53 | 3,30 | 3,08 | 2,89 | 2,72 | 2,56 | 2,42 | 2,29 | 2,17 | 2,07 | 1,96 | 1,87 | 1,78 | 1,70 | 1,62 |
| | | Double | | 4,40 | 3,92 | 3,50 | 3,19 | 2,90 | 2,66 | 2,45 | 2,27 | 2,11 | 1,96 | 1,85 | 1,73 | 1,64 | 1,55 | 1,47 | 1,41 | 1,34 | 1,27 | 1,22 |
| | | Multiple | | 4,85 | 4,43 | 4,09 | 3,78 | 3,50 | 3,23 | 2,98 | 2,77 | 2,59 | 2,42 | 2,27 | 2,14 | 2,01 | 1,91 | 1,82 | 1,73 | 1,65 | 1,58 | 1,50 |
| 80 | Pressure | Single | 4,00 | 3,72 | 3,47 | 3,25 | 3,06 | 2,89 | 2,74 | 2,61 | 2,47 | 2,35 | 2,23 | 2,11 | 2,00 | 1,90 | 1,80 | 1,71 | 1,63 | 1,54 | 1,47 | 1,40 |
| | | Double | 4,00 | 3,72 | 3,47 | 3,25 | 3,06 | 2,89 | 2,74 | 2,61 | 2,47 | 2,35 | 2,22 | 2,09 | 1,96 | 1,85 | 1,73 | 1,63 | 1,53 | 1,45 | 1,37 | 1,30 |
| | | Multiple | 4,00 | 3,72 | 3,47 | 3,25 | 3,06 | 2,89 | 2,74 | 2,61 | 2,47 | 2,35 | 2,23 | 2,11 | 2,00 | 1,90 | 1,80 | 1,71 | 1,63 | 1,54 | 1,47 | 1,40 |
| | Suction | Single | | | | 4,97 | 4,67 | 4,39 | 4,13 | 3,90 | 3,69 | 3,50 | 3,32 | 3,16 | 3,00 | 2,86 | 2,73 | 2,61 | 2,49 | 2,39 | 2,28 | 2,19 |
| | | Double | 4,88 | 4,31 | 3,85 | 3,46 | 3,14 | 2,88 | 2,65 | 2,45 | 2,27 | 2,12 | 1,98 | 1,86 | 1,74 | 1,66 | 1,57 | 1,49 | 1,42 | 1,36 | 1,29 | 1,23 |
| | | Multiple | | | 4,55 | 4,13 | 3,75 | 3,42 | 3,15 | 2,92 | 2,71 | 2,54 | 2,38 | 2,24 | 2,12 | 2,00 | 1,91 | 1,81 | 1,73 | 1,66 | 1,59 | 1,51 |
| 100 | Pressure | Single | 4,16 | 3,86 | 3,60 | 3,38 | 3,18 | 3,00 | 2,85 | 2,70 | 2,58 | 2,46 | 2,35 | 2,25 | 2,17 | 2,08 | 2,00 | 1,91 | 1,83 | 1,74 | 1,67 | 1,60 |
| | | Double | 4,16 | 3,86 | 3,60 | 3,38 | 3,18 | 3,00 | 2,85 | 2,70 | 2,58 | 2,46 | 2,35 | 2,25 | 2,17 | 2,08 | 2,00 | 1,91 | 1,83 | 1,74 | 1,67 | 1,60 |
| | | Multiple | 4,16 | 3,86 | 3,60 | 3,38 | 3,18 | 3,00 | 2,85 | 2,70 | 2,58 | 2,46 | 2,35 | 2,25 | 2,17 | 2,08 | 2,00 | 1,91 | 1,83 | 1,74 | 1,67 | 1,60 |
| | Suction | Single | | | | | | | 4,88 | 4,64 | 4,42 | 4,21 | 4,02 | 3,85 | 3,68 | 3,52 | 3,38 | 3,24 | 3,11 | 2,98 | 2,86 | 2,75 |
| | | Double | 4,69 | 4,15 | 3,71 | 3,36 | 3,03 | 2,78 | 2,56 | 2,38 | 2,21 | 2,06 | 1,93 | 1,81 | 1,71 | 1,62 | 1,53 | 1,46 | 1,39 | 1,33 | 1,26 | 1,22 |
| | | Multiple | | 4,85 | 4,33 | 3,92 | 3,56 | 3,25 | 3,00 | 2,79 | 2,61 | 2,44 | 2,28 | 2,15 | 2,04 | 1,94 | 1,84 | 1,75 | 1,68 | 1,61 | 1,54 | 1,47 |
| 120 | Pressure | Single | 4,32 | 4,01 | 3,74 | 3,51 | 3,30 | 3,12 | 2,96 | 2,81 | 2,68 | 2,55 | 2,44 | 2,34 | 2,24 | 2,16 | 2,08 | 2,00 | 1,94 | 1,88 | 1,82 | 1,75 |
| | | Double | 4,32 | 4,01 | 3,74 | 3,51 | 3,30 | 3,12 | 2,96 | 2,81 | 2,68 | 2,55 | 2,44 | 2,34 | 2,24 | 2,12 | 2,00 | 1,89 | 1,78 | 1,69 | 1,60 | 1,52 |
| | | Multiple | 4,32 | 4,01 | 3,74 | 3,51 | 3,30 | 3,12 | 2,96 | 2,81 | 2,68 | 2,55 | 2,44 | 2,34 | 2,24 | 2,16 | 2,08 | 2,00 | 1,94 | 1,88 | 1,82 | 1,75 |
| | Suction | Single | | | | | | | | | | 4,94 | 4,75 | 4,56 | 4,38 | 4,20 | 4,03 | 3,88 | 3,74 | 3,59 | 3,42 | 3,21 |
| | | Double | 4,75 | 4,25 | 3,79 | 3,44 | 3,14 | 2,88 | 2,65 | 2,45 | 2,28 | 2,13 | 1,99 | 1,88 | 1,77 | 1,68 | 1,59 | 1,51 | 1,45 | 1,38 | 1,32 | 1,26 |
| | | Multiple | | 4,88 | 4,38 | 3,96 | 3,61 | 3,31 | 3,05 | 2,83 | 2,65 | 2,49 | 2,34 | 2,20 | 2,09 | 1,98 | 1,89 | 1,80 | 1,72 | 1,66 | 1,59 | 1,52 |
| 150 | Pressure | Single | 4,50 | 4,18 | 3,90 | 3,66 | 3,44 | 3,25 | 3,08 | 2,93 | 2,79 | 2,66 | 2,55 | 2,44 | 2,35 | 2,25 | 2,17 | 2,10 | 2,02 | 1,95 | 1,89 | 1,83 |
| | | Double | 4,50 | 4,18 | 3,90 | 3,66 | 3,44 | 3,25 | 3,08 | 2,93 | 2,79 | 2,66 | 2,55 | 2,44 | 2,35 | 2,25 | 2,15 | 2,05 | 1,95 | 1,84 | 1,74 | 1,66 |
| | | Multiple | 4,50 | 4,18 | 3,90 | 3,66 | 3,44 | 3,25 | 3,08 | 2,93 | 2,79 | 2,66 | 2,55 | 2,44 | 2,35 | 2,25 | 2,17 | 2,10 | 2,02 | 1,95 | 1,89 | 1,83 |
| | Suction | Single | | | | | | | | | | | | | | | 4,94 | 4,71 | 4,38 | 4,06 | 3,80 | 3,57 |
| | | Double | 4,81 | 4,30 | 3,88 | 3,50 | 3,20 | 2,95 | 2,71 | 2,52 | 2,35 | 2,19 | 2,06 | 1,94 | 1,83 | 1,73 | 1,65 | 1,57 | 1,49 | 1,43 | 1,38 | 1,32 |
| | | Multiple | | 4,88 | 4,38 | 3,96 | 3,63 | 3,33 | 3,09 | 2,88 | 2,68 | 2,50 | 2,36 | 2,23 | 2,12 | 2,01 | 1,92 | 1,84 | 1,75 | 1,68 | 1,62 | 1,55 |

For design loads/spans out of the presented range or for other cases that doesn't fit within the assumptions presented above, please contact the technical assistance department of Joris Ide

Steel grade: S280GD, external sheet 0,60 mm, internal sheet 0,40 mm.

Dimensions and tolerances

Minimum cutback: 50 mm – maximum cutback: 350 mm (no cutback: not possible) Cutback 25 mm for wall application (on demand) Panels can be manufactured for placing left to right and right to left as per your requirements.

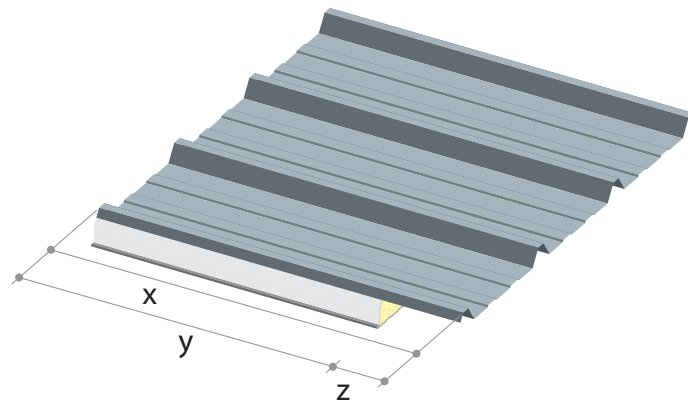


1. Seal under the crown of the overlap.

Minimum insulation length of panels

| | |
|--------|------|
| 30 mm | 2250 |
| 40 mm | 2250 |
| 60 mm | 2250 |
| 80 mm | 2250 |
| 100 mm | 2250 |
| 120 mm | 2000 |
| 150 mm | 2000 |

Cut-back system



x. Panel length
y. Insulation length
z. Cut-back

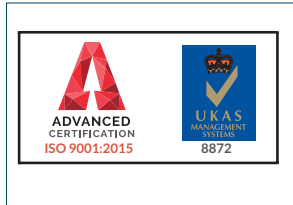
Product tolerance

| | |
|------------------|---------|
| Length < 3000 mm | ± 5 mm |
| Length > 3000 mm | ± 10 mm |
| Width (mm) | ± 2 mm |
| Gauge (mm) | ± 2 mm |

Product tolerances [According to EN 14509:2013]

Certifications, quality and durability

The JI Roof PIR is manufactured according to the ISO 9001 and is assembled from high-quality raw materials which are selected by a detailed supply chain management and in-house laboratory controls. The Joris Ide plant in Zwevezele is ISO 14001:2015 certified. The product is produced to the highest quality standards such as EN 14509. The JI Roof PIR carries the product conformity according to the European legislation and therefore all packs are CE-marked and carry the Declaration of Performance.



Assessed to
ISO 9001:2015



Assessed to
ISO 14001:2015



Assessed to
ISO 45001:2018



Assessed to
BES 6001

Optional



Assessed to
ISO 37301:2021



Accessories

Joris Ide can supply accessories such as foam fillers, flashings, matching outer single skin sheets and integrated polycarbonate roof lights.

Maintenance composite panels

Joris Ide advises to do an annual inspection of the panels and to carry out any remedial work identified during inspection.

The maintenance & cleaning frequency is dependant on the application environment and actual pollution conditions of the composite panel. Exterior used panels need to be cleaned once per year. For interior used panels, the cleaning is dependant on the actual pollution conditions.

The cleaning of building walls should be made from up to down manually or by suitable cleaning facilities. Please notice that any cleaner which includes corrosive material is forbidden to be used for the cleaning. Specific cleaning processes as follow:

- Use plenty of clean water to wash the panel's surface;
- Use soft cloth with diluted detergent to wipe the panel's surface softly;
- Use clean water again to wash the stains off;
- Check the panel's surface and special cleaning with detergent is needed, if some parts are still not clean;
- Use clear water to wash the panels' surface till all stains have been washed out.

Notice:

Please don't clean if the panel's surface is hot (over 40 °C) because too fast volatility of the water will do harm to the coating. Please notice especially that suitable detergent should be chosen. Generally neutral detergent is OK. Please don't use strong alkaline detergent, such as potassium hydroxide, sodium hydroxide and also please don't use strong acid detergent, abrasive detergent and paint soluble detergent. We would suggest to clean a small part as an experiment before carrying out thorough cleaning of the whole project.



Jl Roof PIR for agricultural applications.



Jl Roof PIR used in a residential project.



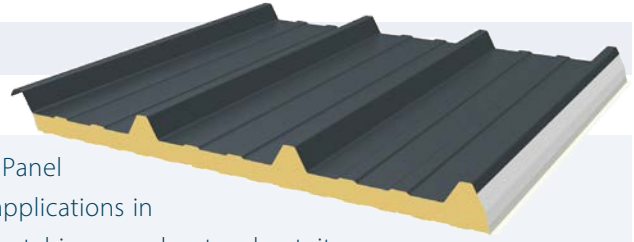
Jl Roof PIR industrial roof application.



Vineyard storage building made in Jl Roof PIR

JI Roof PIR - Roof application, Step 1

JI Roof PIR

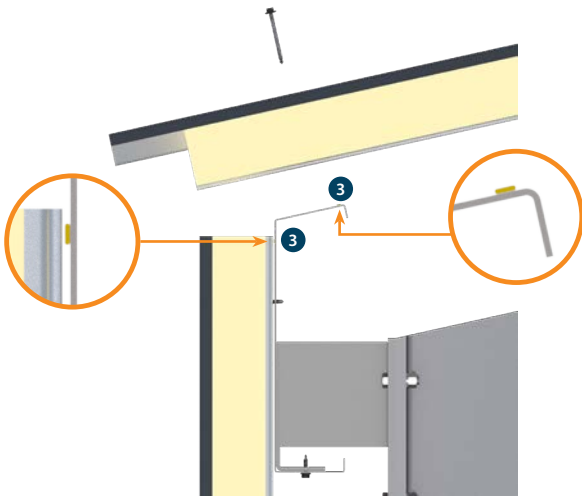


The JI Roof PIR FM approved Trapezoidal Insulated Roof Panel is used for pitched roofs or horizontal and vertical wall applications in industrial, commercial and public buildings. Due to its metal inner and outer sheet, it combines thermal resistance with large spans. The minimum pitch to be applied is 4° or more after deflection.

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 panels are to be placed as indicated with ①, ②, ③ and ④.

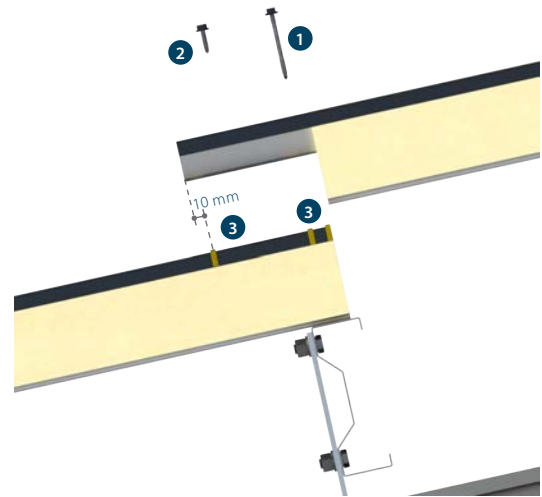


Eaves detail



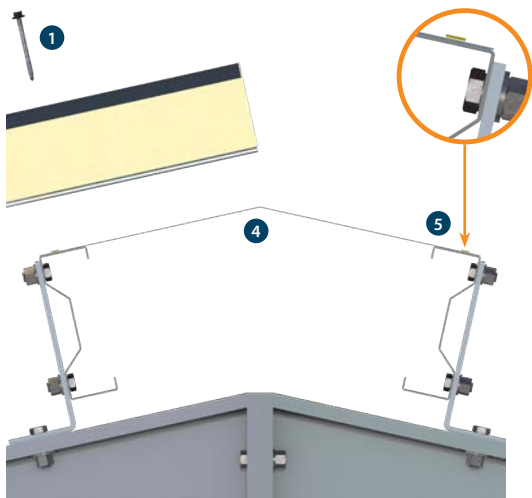
A strip of Butyl tape air sealant 6 mm x 5 mm **1** should be applied to the eaves beam to protect the contact with both wall and roof panels.

End lap



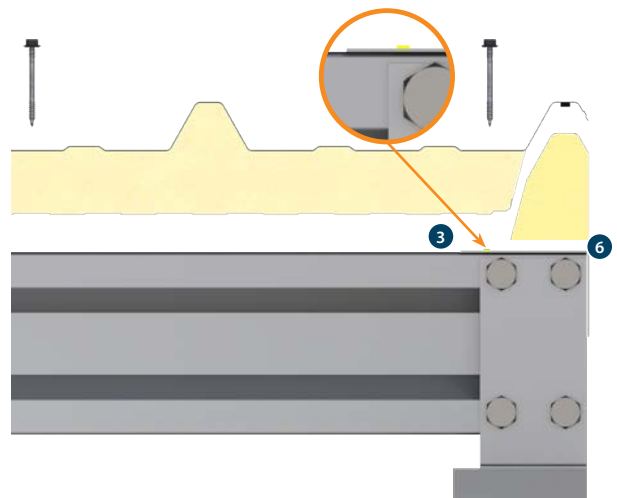
Overlap of JI Roof PIR panels with a minimum 150 mm. Main fastener **1** in each valley. Stitcher screws **2** in each crown at 50 mm from edge. 3 x strips of Butyl tape air sealant 6 mm x 5 mm **3**. Butyl should be placed at 10 mm from edge (max. 20 mm).

External ridge



An Internal flashing **4** sealed with a butyl air sealant 9 mm x 3 mm **5** for a proper external ridge. Flashing fixed by panel main fixings **1**.

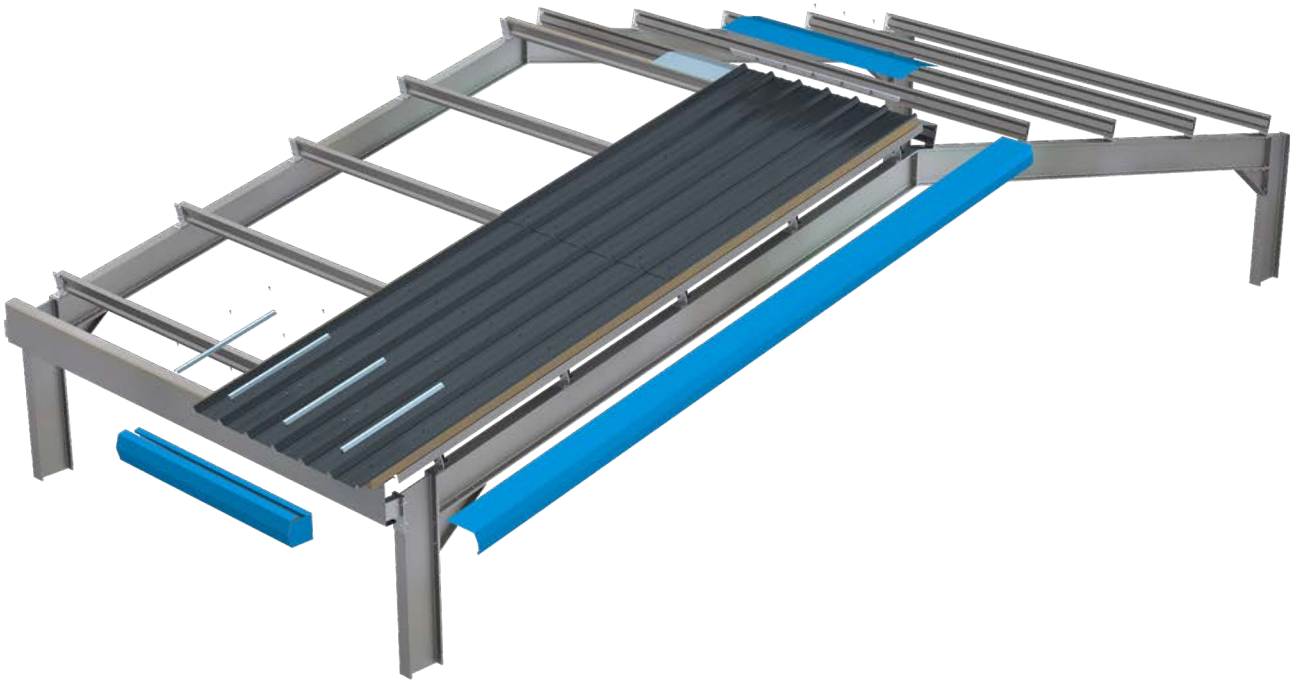
Verge detail



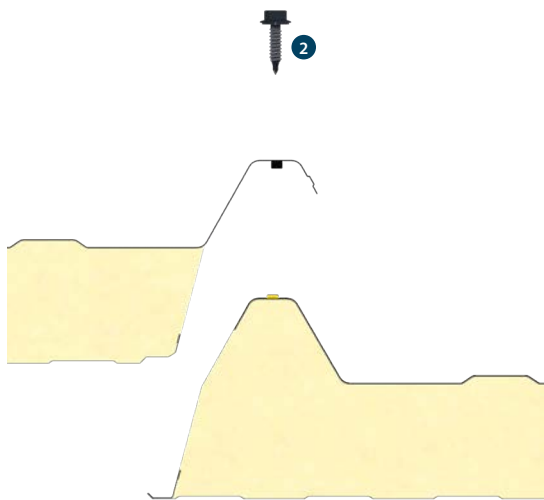
A strip of Butyl tape air sealant 6 mm x 5 mm **3** should be applied between the cleader **6** angle and panels.

JI Roof PIR - Roof application, Step 2

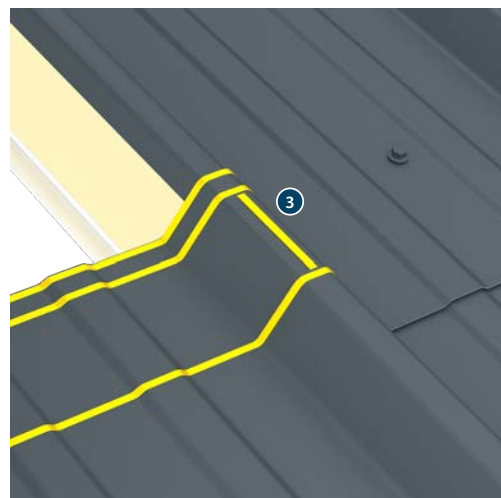
Joris Ide is able to provide the best finishings for your building with a range of products that include sealants, flashings and fixings. Flashings can be ordered with the same coating and colour as the sandwich panels. Stainless steel fixings will provide resistance to the most severe environment. More info on page 14.



Side & End lap

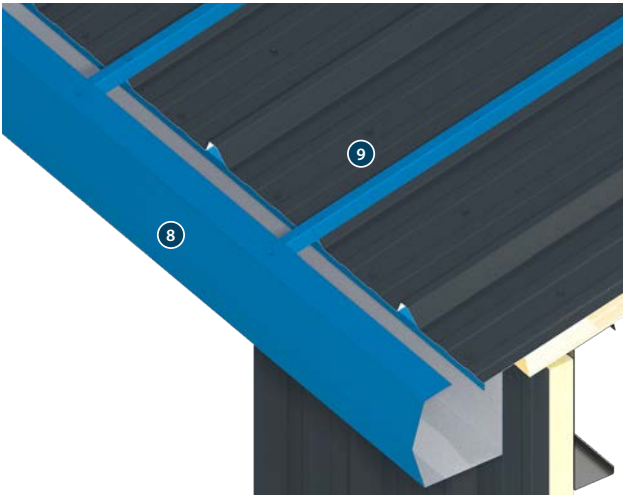


The side lap between panels should be fixed with stitcher screws ② in the crown at max. 450 mm center. The side lap is protected with a compressible factory applied sealant. It is recommended to use additional gun-grade sealant (site-applied) ⑦ on coastal sites.

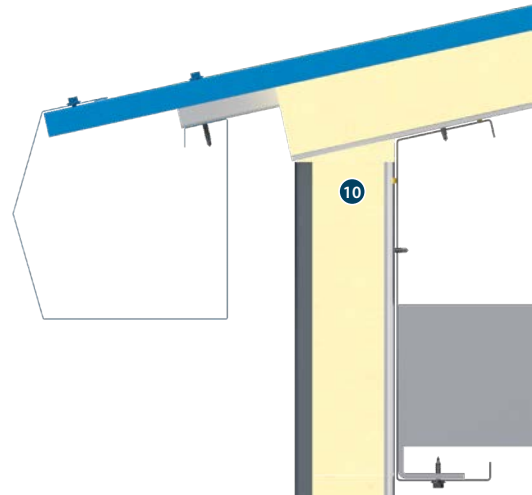


An additional strip of Butyl tape air sealant 6 mm x 5 mm ③ is recommended where the side lap meets the end lap to reinforce the tightness.

External Gutter

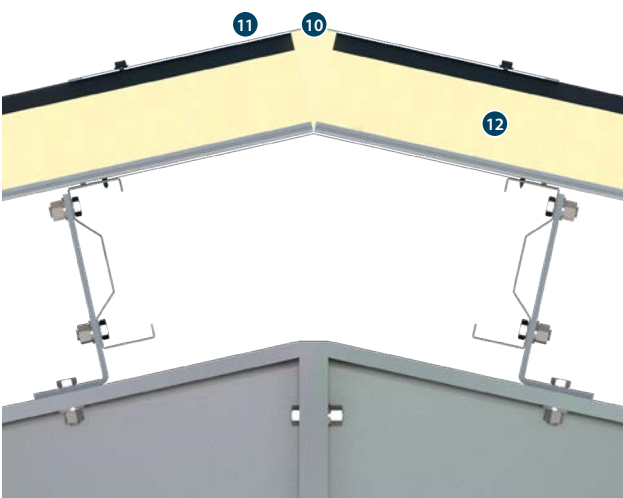


External overhanging gutter **8** supported by support arms **9** fixed to every other crown of panel. A site-applied air sealant **7** must be used between the support arms **9** and the crowns of panels.



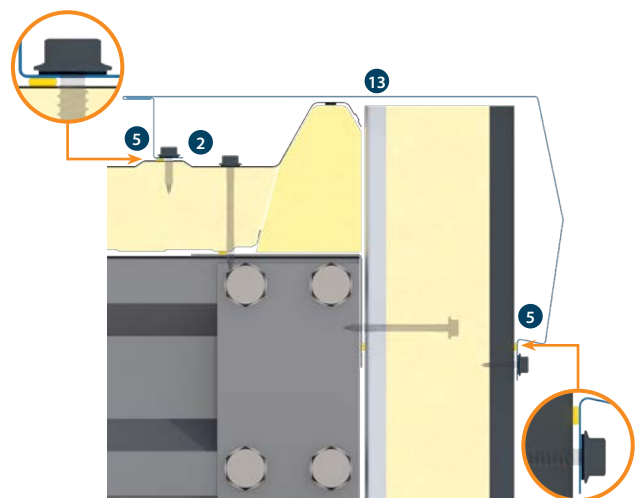
A fire rated site-applied foam insulation **10** must be used to close the corner between wall and roof.

External ridge - Finishings



A ridge flashing **11** sealed with a 9 mm x 3 mm butyl air sealant **5** or gun-grade butyl sealant **7** to cover the ridge. A profiled foam filler **12** needs to be used at 80-100 mm from end. A fire rated site-applied foam insulation **10** must be applied to fill the ridge.

Verge detail - Finishings

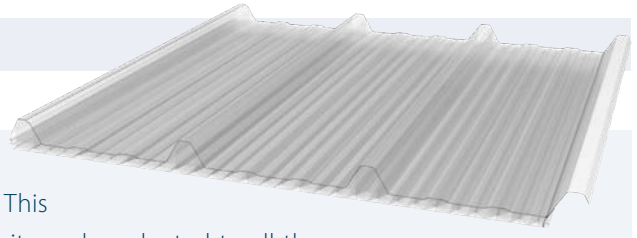


The verge flashing **13** should cover the verge from eaves to ridge and should be fixed with stitching screws at every 450 mm **2** and protected with 9 mm x 3 mm butyl air sealant **5**.

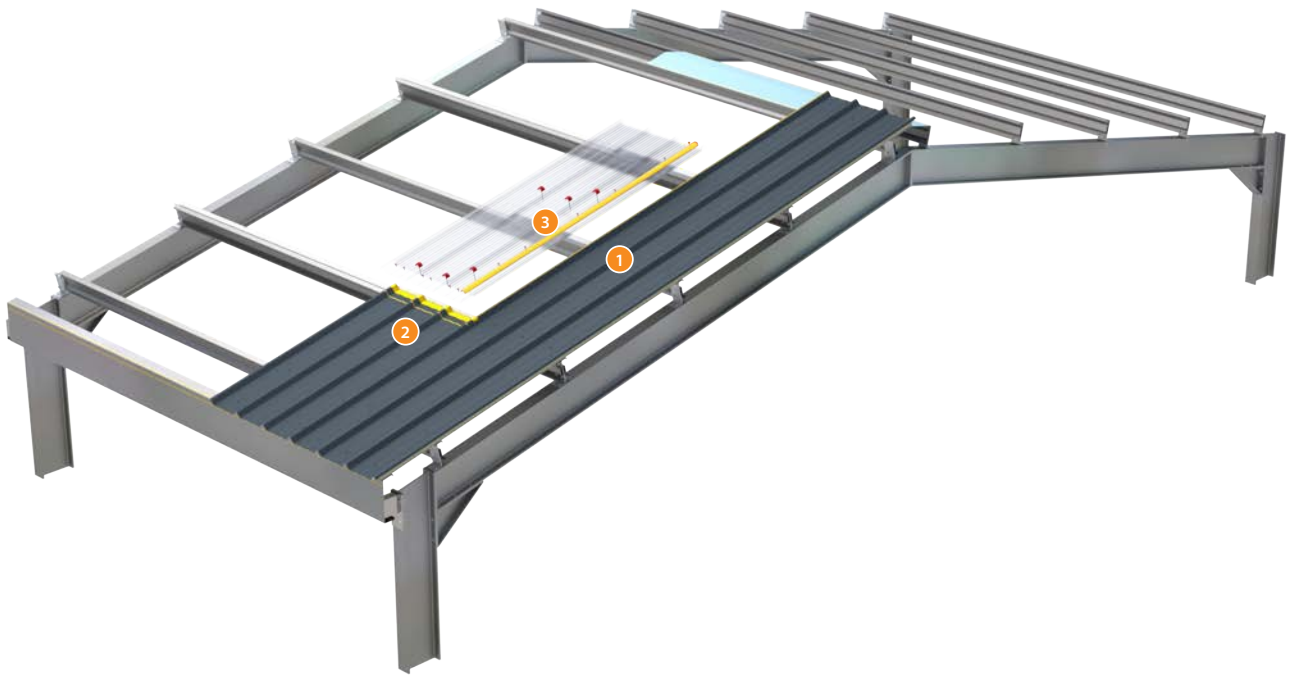
JI Roof PIR - Rooflight, Step 1

JI Thermoroof Polycarb

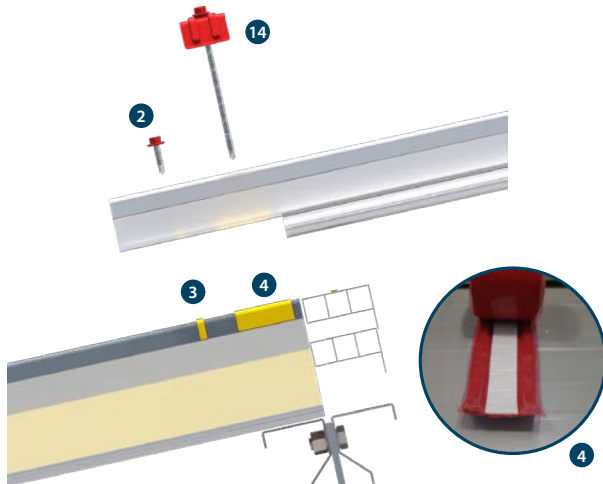
The JI Thermoroof Polycarb is the perfect solution for a natural and bright environment inside your building. This product is fully compatible with the JI Roof PIR panel as it can be adapted to all the thicknesses. This product provides a thermal performance which is line with the thermal requirements of Building Regulation part L2 (with U-values from 0.95 to 1.58 W/m².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.

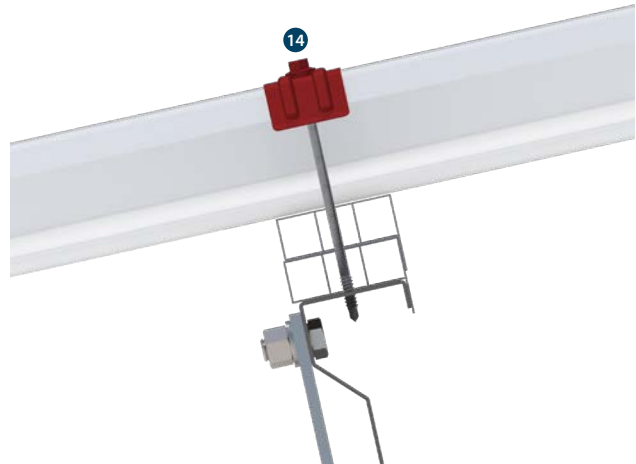


Overlap - Rooflight over Panel



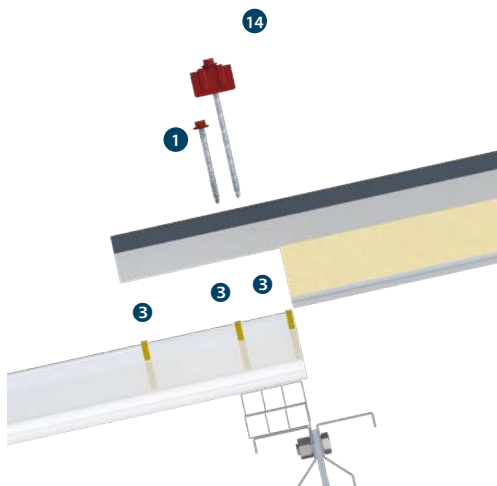
Overlap of JI Thermoroof Polycarb on JI Roof panel with a minimum of 150 mm. Main fastener – crown fixing 14 on each crown. 2 x stitcher screws 2 on each valley at 50 mm from edge. 1 x butyl tape air sealant (6 mm x 5 mm) 3 and 1 x butyl-PE-butyl tape air sealant (50 mm x 8 mm) 4 applied on panels and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

Continuous Rooflight



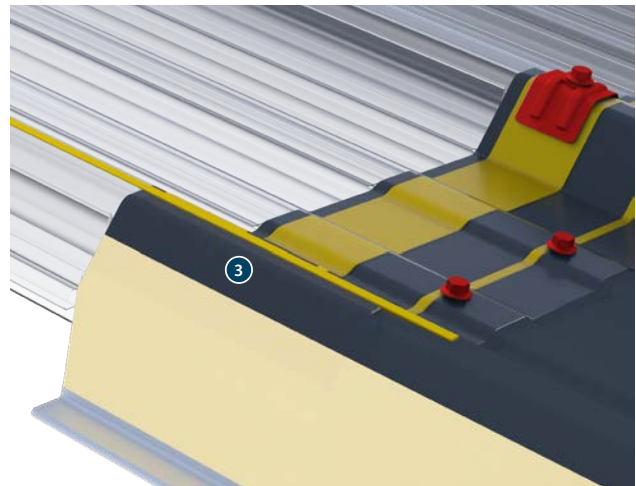
JI Thermoroof Polycarb fixed to purlin through spacer with main fastener – crown fixing 14 on each crown.

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.

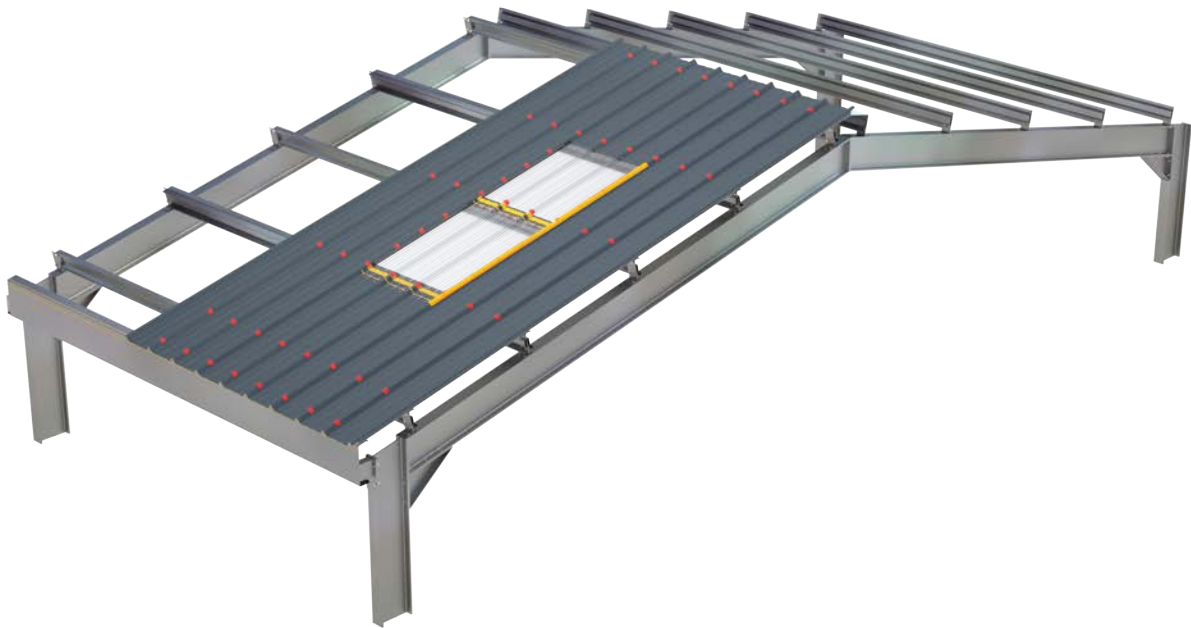
Overlap - Rooflight over Panel



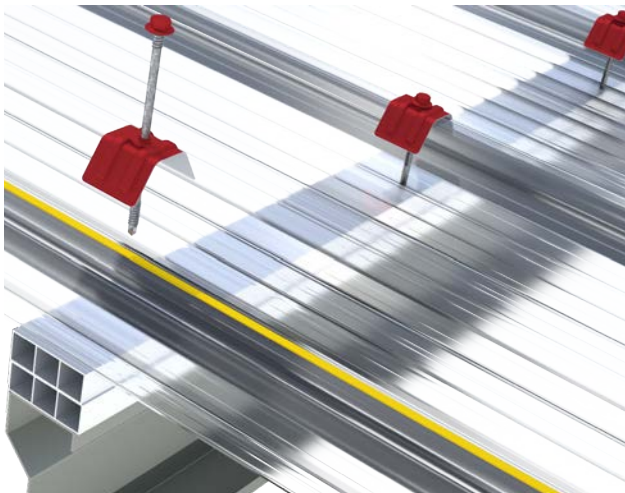
Additional butyl tape air sealant 3 overrunning 60-70 mm after end on JI Thermoroof Polycarb as illustrated.

JI Roof PIR - Rooflight, Step 2

Joris Ide are able to provide the best finishings for your building with a range of products that include sealants, flashings and fixings. Flashings can be ordered with the same coating and colour as the sandwich panels. Stainless steel fixings will provide resistance to the most severe environment. More info on page 14.

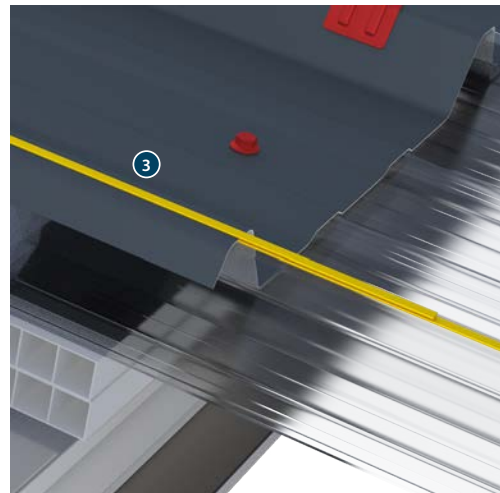


Continuous Rooflight



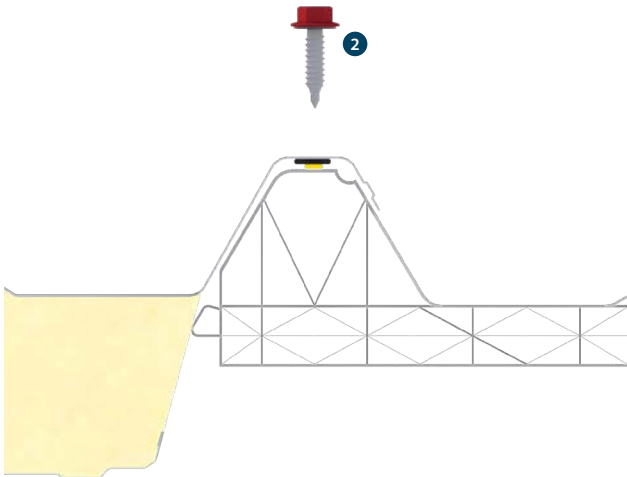
A saddle washer should be used on every main fixing.

Overlap - Panel over Rooflight



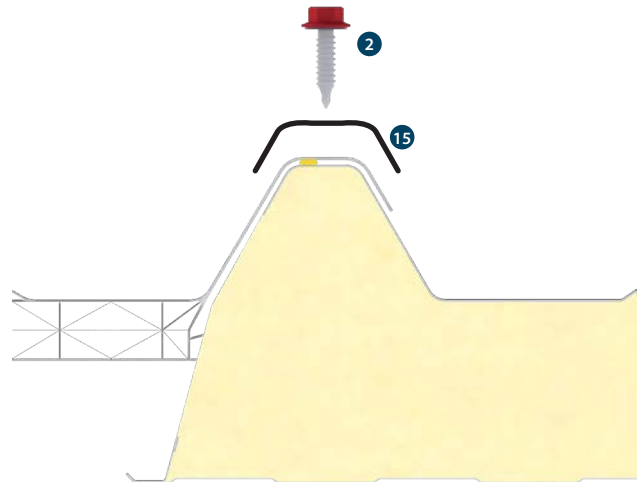
Additional butyl tape air sealant 6 mm x 5 mm ③ overrunning 60-70 mm after end on JI Roof PIR as illustrated.

Side lap - Panel over Rooflight



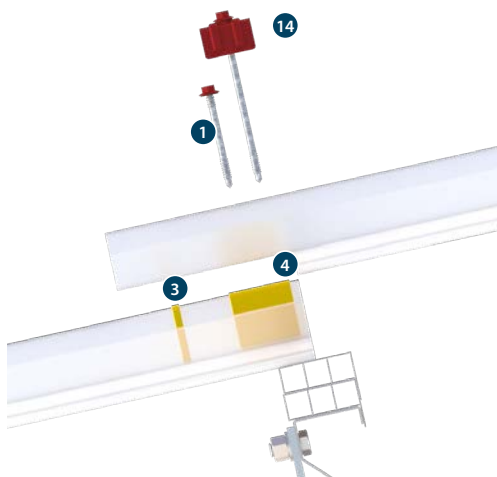
The side lap is protected with a factory applied sealant. It is recommended to use additional gun-grade sealant (site applied) ⑦ on coastal site. Stitcher screws ② at 450 mm.

Side lap - Rooflight over Panel



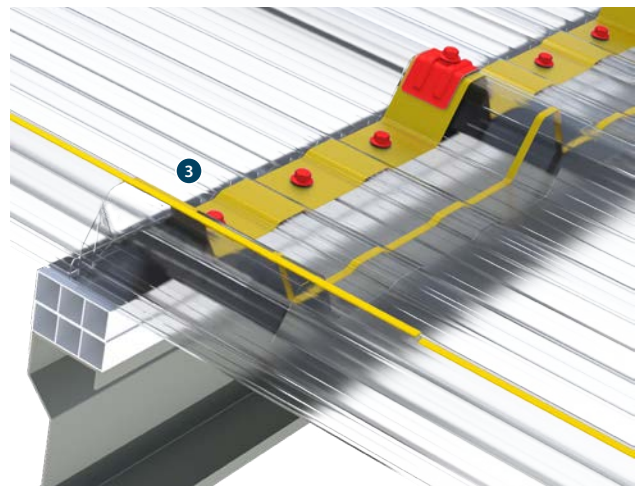
1 x strip of butyl tape air sealant 6 mm x 5 mm ③ applied between JI Thermoroof Polycarb and JI Roof PIR on weather side. Stitcher screws ② at 450 mm. The metallic cover strip ⑮ means to reinforce the polycarbonate side lap.

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.

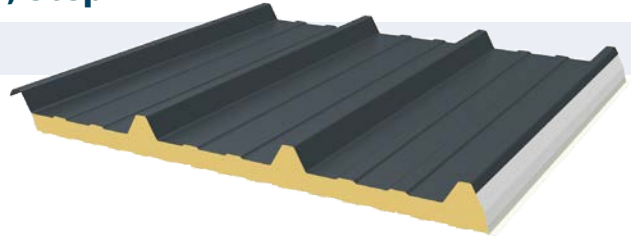
Overlap - between Rooflights



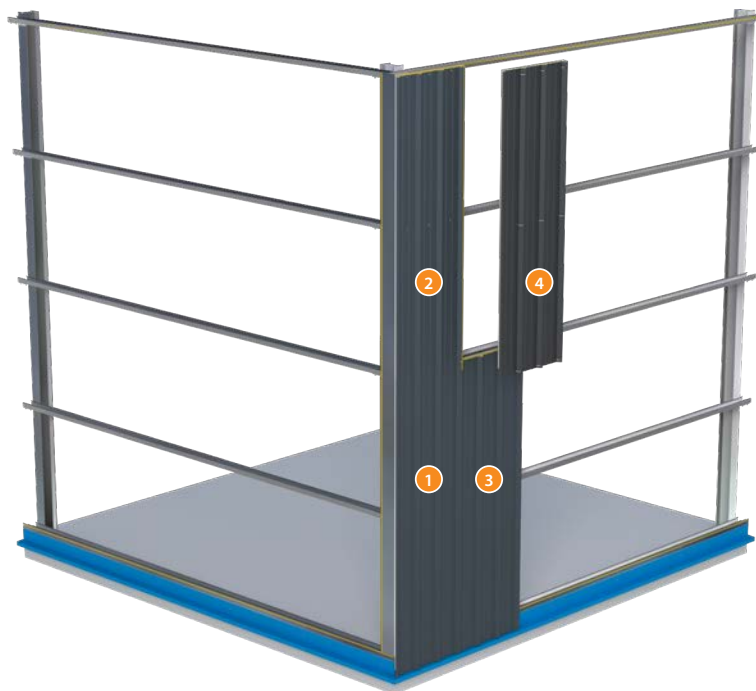
Additional butyl tape air sealant ③ overrunning 60-70 mm after end of JI Thermoroof Polycarb as illustrated.

JI Roof PIR - Vertical Wall application, Step 1

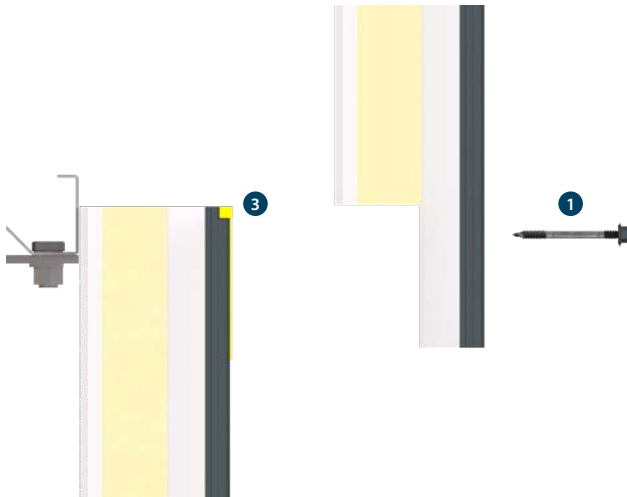
JI Roof PIR



The panels must be placed from bottom to top and from left to right (side laps on the other side can be produced on demand). The panels are to be placed as indicated with ①, ②, ③ and ④.

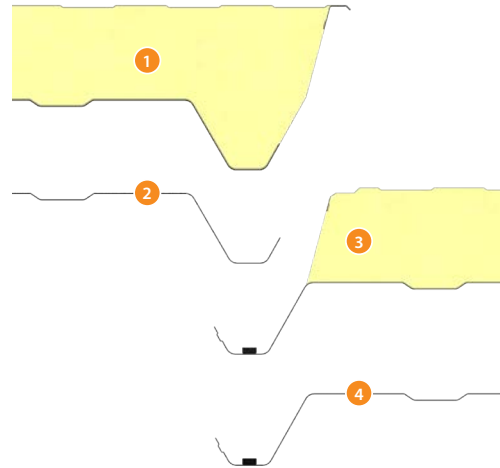


Vertical end lap



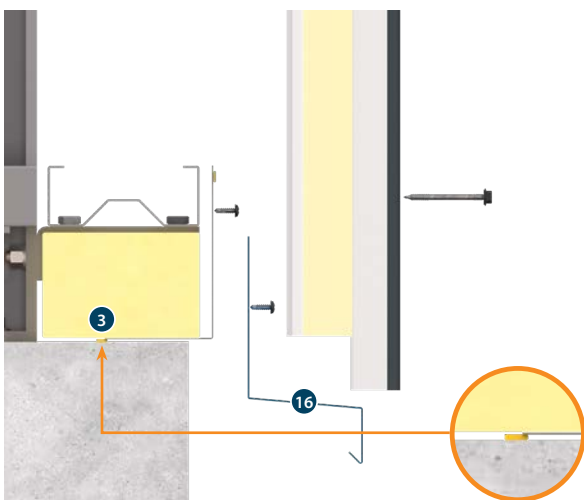
Overlap of JI Roof panels with 100 mm. Main fastener **1** in each valley. 1 x strip of Butyl tape air sealant 6 mm x 5 mm **3** or gun-grade butyl sealant **7**.

Panels sequence



The sequence of panels should be as illustrated with **1**, **2**, **3** and **4**.

External fill - Insulation



PIR board insulation and site applied fire rated insulation to fill any gaps. An internal closure flashing placed over a strip of butyl tape air sealant 6 mm x 5 mm. **3** The drip flashing **16** is fixed to the internal closure. JI Roof to be fixed to first rail through every flashing.

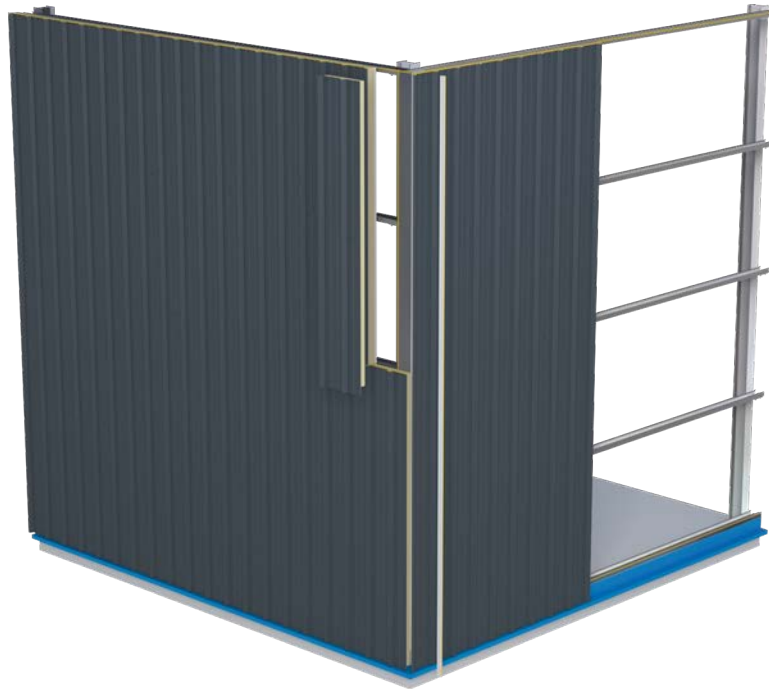
External fill - sealants



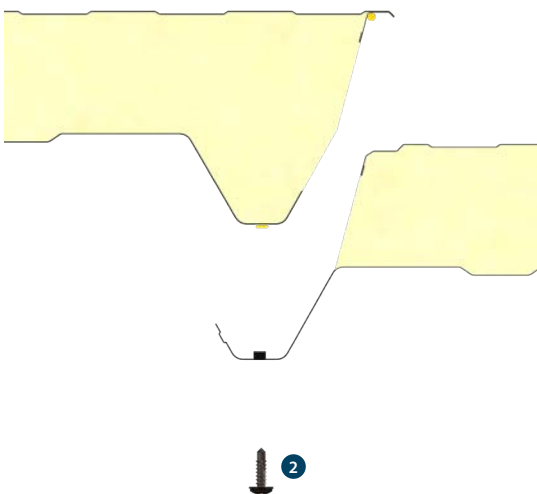
1 x strip of Butyl tape air sealant 6 mm x 5 mm **3** should be applied on supports before placing the panels.

JI Roof PIR - Vertical Wall application, Step 2

Joris Ide is able to provide the best finishings for your building with a range of products that include sealants, flashings and fixings. Flashings can be ordered with the same coating and colour as the sandwich panels. Stainless steel fixings will provide resistance to the most severe environment. More info on page 14.

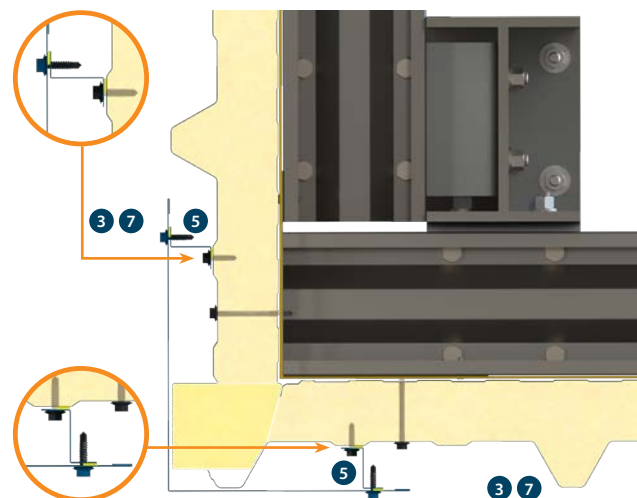


Side lap



The side lap should be fixed with stitcher screws **2** in the crown at max. 450 mm centers.

External Corner

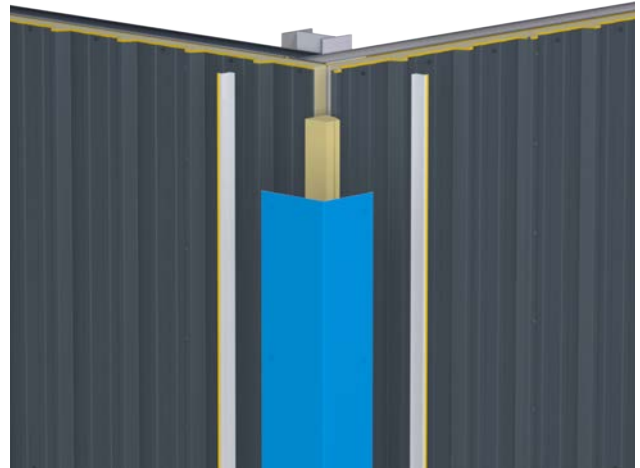


1 x strip of Butyl tape air sealant 6 mm x 5 mm **3** or gun-grade butyl sealant **7** between internal cleader **6** and panels (each side). 1 x strip of Butyl air sealant 9 mm x 3 mm **5** between panel and flashing supports. PIR fire-rated board insulation at the corner.

Finishing 1



Finishing 1 - Detail

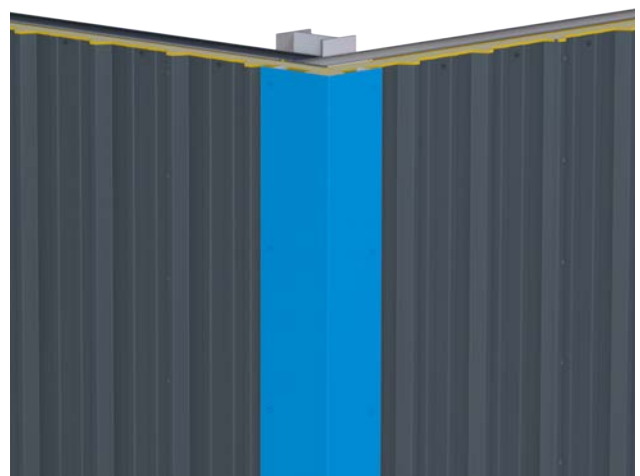


Butyl air sealant should always be used between any surface in contact with JI Roof panel. 1 x strip of Butyl air sealant 9 mm x 3 mm ⁵ is recommended between panel and flashing supports. PIR fire-rated board insulation should be used at the corners to reduce thermal bridging.

Finishing 2



Finishing 2 - Detail



External flashing can be ordered with the same coating and colour as sandwich panels to promote the continuity of appearance. It is recommended to fix the external flashing to support with stitchers every 450 mm.

Accessories

Fasteners

Light steel section fasteners

| Steel Purlin Thickness | Panel thickness (mm) | A2 Stainless Steel Fasteners | | Carbon Steel Fasteners | | A2 / Carbon |
|------------------------|----------------------|------------------------------|--------------------|------------------------|-----------------|-------------------|
| 1,2 - 3,2 mm | | Valley fixing ① | Crown fixing ⑭ | Valley fixing ① | Crown fixing ⑭ | Stitchers ② |
| | 40 | BM-CPLS082-S19-COL | BM-CPLS115-S19-COL | CPLS75-S19-COL | CPLS115-S19-COL | (BM) ST22-S16-COL |
| | 60 | BM-CPLS100-S19-COL | BM-CPLS135-S19-COL | CPLS85-S19-COL | CPLS135-S19-COL | |
| | 80 | BM-CPLS115-S19-COL | BM-CPLS150-S19-COL | CPLS115-S19-COL | CPLS150-S19-COL | |
| | 100 | BM-CPLS135-S19-COL | BM-CPLS180-S19-COL | CPLS135-S19-COL | CPLS175-S19-COL | |
| | 120 | BM-CPLS150-S19-COL | BM-CPLS240-S19-COL | CPLS150-S19-COL | CPLS240-S19-COL | |
| | 150 | BM-CPLS180-S19-COL | BM-CPLS240-S19-COL | CPLS175-S19-COL | CPLS240-S19-COL | |

①, ② and ⑭ are the references presented on construction details

Heavy steel section fasteners

| Steel Purlin Thickness | Panel thickness (mm) | A2 Stainless Steel Fasteners | | Carbon Steel Fasteners | | A2 / Carbon |
|------------------------|----------------------|------------------------------|--------------------|------------------------|-----------------|-------------------|
| 4,0 - 12,5 mm | | Valley fixing ① | Crown fixing ⑭ | Valley fixing ① | Crown fixing ⑭ | Stitchers ② |
| | 40 | BM-CPHS080-S19-COL | BM-CPHS125-S19-COL | CPHS85-S19-COL | CPHS125-S19-COL | (BM) ST22-S16-COL |
| | 60 | BM-CPHS105-S19-COL | BM-CPHS125-S19-COL | CPHS105-S19-COL | CPHS125-S19-COL | |
| | 80 | BM-CPHS125-S19-COL | BM-CPHS150-S19-COL | CPHS125-S19-COL | CPHS150-S19-COL | |
| | 100 | BM-CPHS150-S19-COL | BM-CPHS190-S19-COL | CPHS150-S19-COL | CPHS185-S19-COL | |
| | 120 | BM-CPHS190-S19-COL | BM-CPHS190-S19-COL | CPHS185-S19-COL | CPHS245-S19-COL | |
| | 150 | BM-CPHS190-S19-COL | BM-CPHS250-S19-COL | CPHS185-S19-COL | CPHS245-S19-COL | |

①, ② and ⑭ are the references presented on construction details

Sealants



Butyl tape air sealant 6 mm x 5 mm

High quality pressure sensitive butyl sealant
Available in grey - 9,6 m a roll
(reference ③ on construction details)



Butyl tape air sealant 9 mm x 5 mm

High quality pressure sensitive butyl sealant
Available in grey - 6 m a roll
(reference ⑤ on construction details)



Gun grade Mastic

High quality blend of rubber, fillers and
polymer in gun-grade form.
(reference ⑦ on construction details)



Fire rated foam insulation

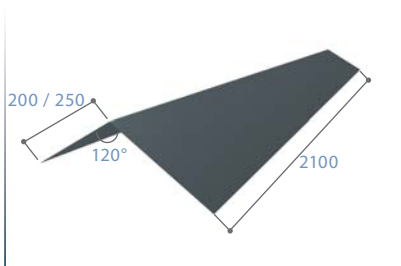
High thermal performance insulation applied on
site to reduce energy losses by thermal bridging.
(reference ⑩ on construction details)



Profiled foam fillers

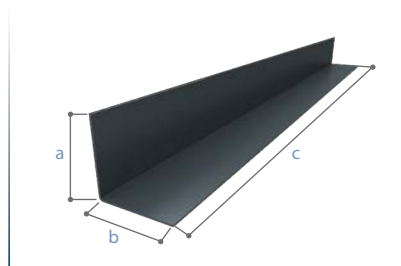
High quality Polyethylene fillers to fit the
profile of JI Roof at the ridge.
(reference ⑫ on construction details)

Flashings and others



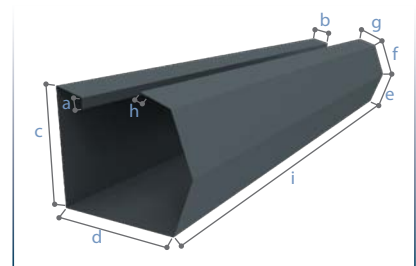
Duopitch ridge internal flashing

Same color and finish as inner sheet
(Option for reference 4 on construction details)



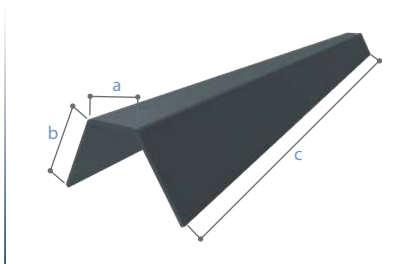
Cleader angle -Structural

Should be part of the structure and provided by others.
(Option for reference 6 on construction details)



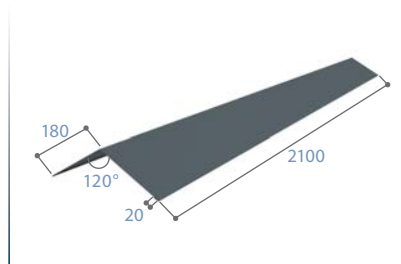
External gutter

Should be part of the structure and provided by others.
(Option for reference 8 on construction details)



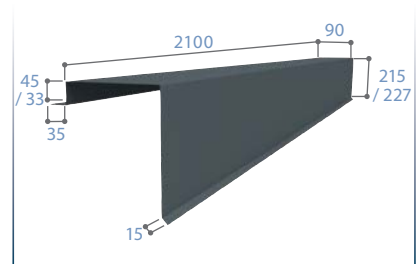
Support arms for gutters

Same color and finish as
(Option for reference 9 on construction details)



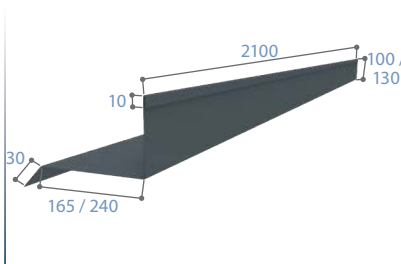
Duopitch ridge external flashing (smooth)

Same color and finish as outer sheet
(Option for reference 11 on construction details)



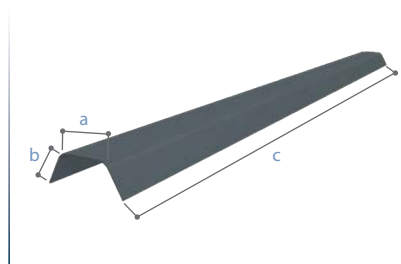
Verge flashing

Same color and finish as outer sheet
(Option for reference 13 on construction details)



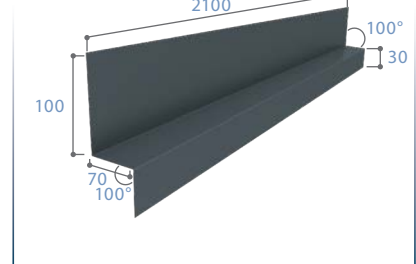
Verge flashing against wall/parapet

Same color and finish as outer sheet
(Option for reference 13 on construction details)



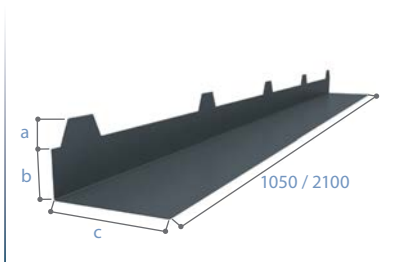
Metal cover strip

Should be part of the structure and provided by others.
(Option for reference 15 on construction details)



Drip flashing

Should be part of the structure and provided by others.
(Option for reference 16 on construction details)



Insulation cover flashing

Same color and finish as outer/inner sheet

All flashings are suitable to be customized.

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Jl Roof PIR used in a residential project.



Jl Roof PIR for agricultural applications.

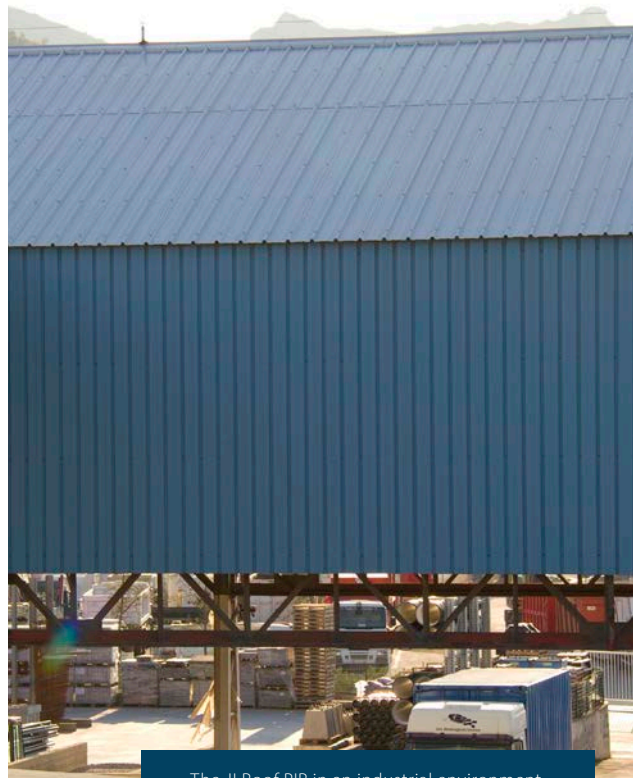


Jl Roof PIR as an agricultural solution.





Vineyard storage building made in JI Roof PIR



The JI Roof PIR in an industrial environment.



JI Roof PIR industrial roof application.



Detail view of the insulation.



JORISIDE
THE STEEL FUTURE

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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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