

JI ROOF PIR

Installation guide UK

MR051 / 0320



JORISIDE
THE STEEL FUTURE



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JI Roof PIR

Installation guide UK

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 Joris Ide group, with more than 3 decades of experience, processing 300'000 tonnes of steel per year and have 17 production sites in over 8 countries. With the help of more than 1000 employees Joris Ide is your dedicated partner.



JI Roof PIR used in a renovation project.



JI Roof PIR in agricultural projects.



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

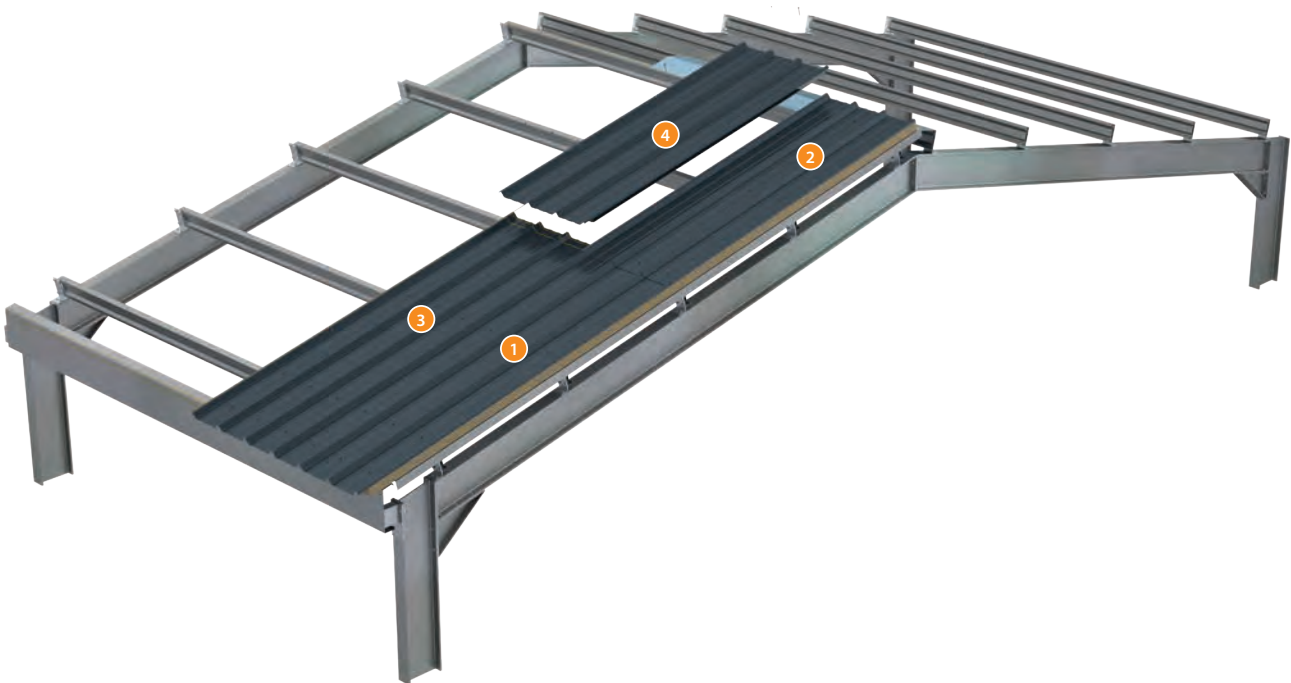
JI Roof PIR - Roof application, Step 1

JI Roof PIR



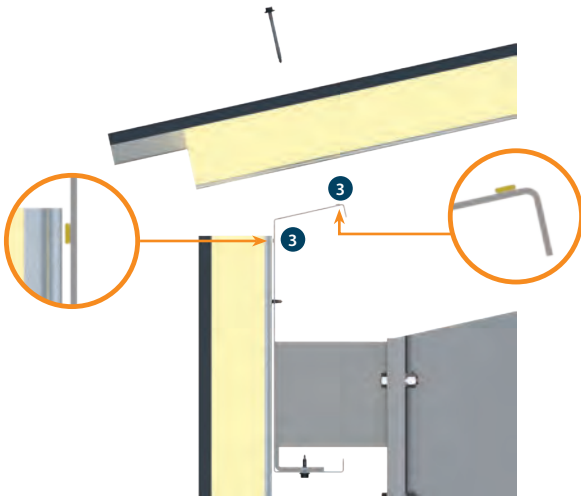
The JI Roof PIR LPCB certified Trapezoidal Insulated Roof Panel is used for pitched roofs or horizontal and vertical wall applications in industrial, commercial and public buildings. Due to its metal inner and outer sheet, it combines thermal resistance with large spans. The minimum pitch to be applied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



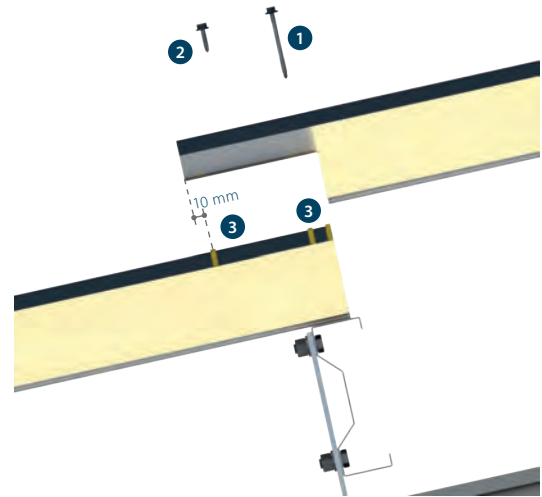
The accessories numbered with (1), (2), ...are detailed at the end of the brochure

Eaves detail



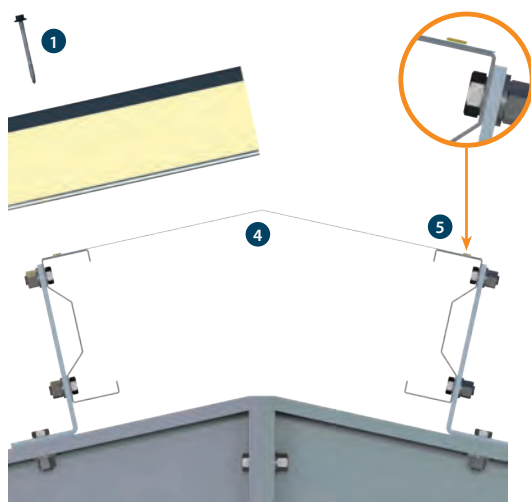
A strip of Butyl tape air sealant 6 mm x 5 mm **1** should be applied to the eaves beam to protect the contact with both wall and roof panels.

End lap



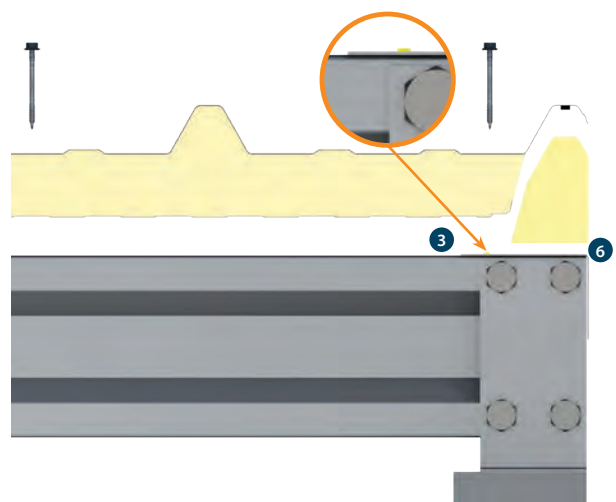
Overlap of JI Roof PIR panels with a minimum 150 mm. Main fastener **1** in each valley. Stitcher screws **2** in each crown at 50 mm from edge. 3 x strips of Butyl tape air sealant 6 mm x 5 mm **3**. Butyl should be placed at 10 mm from edge (max. 20 mm).

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

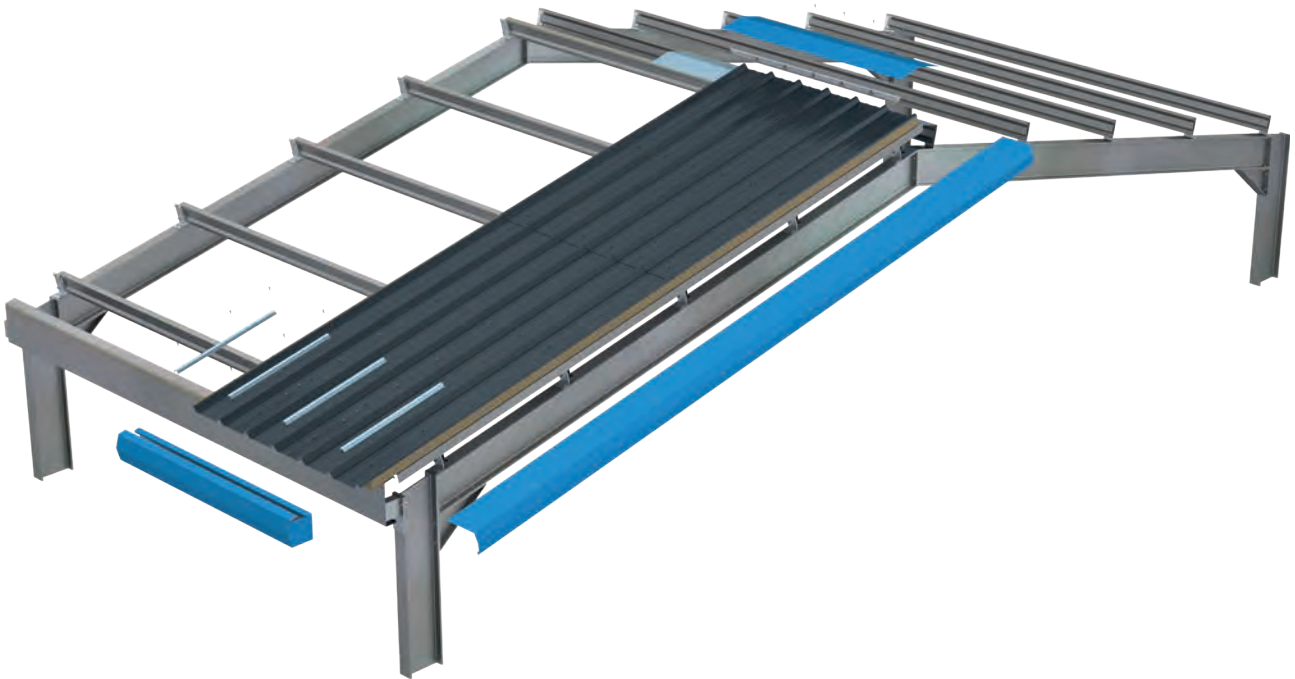


A strip of Butyl tape air sealant 6 mm x 5 mm **3** should be applied between the cleader **6** angle and panels.

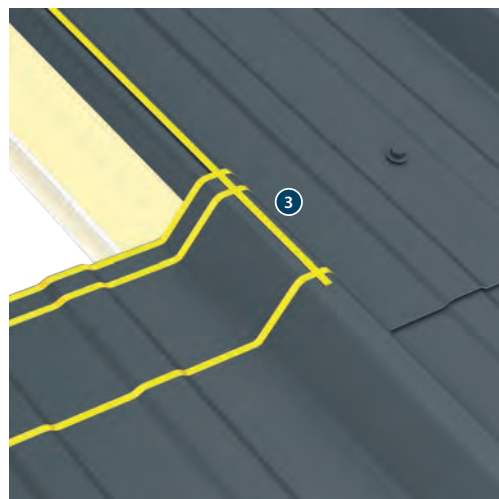
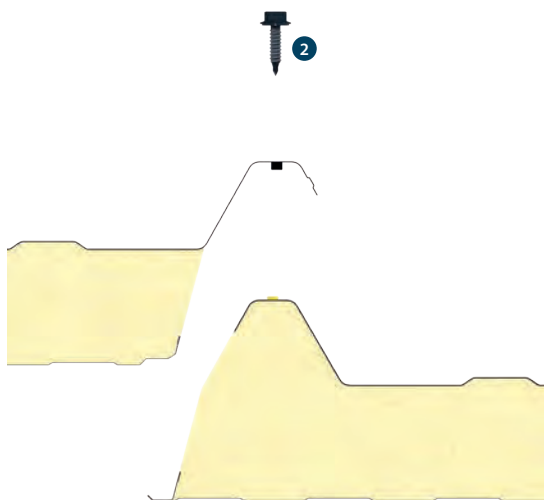
The accessories numbered with (1), (2), ...are detailed at the end of the brochure

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

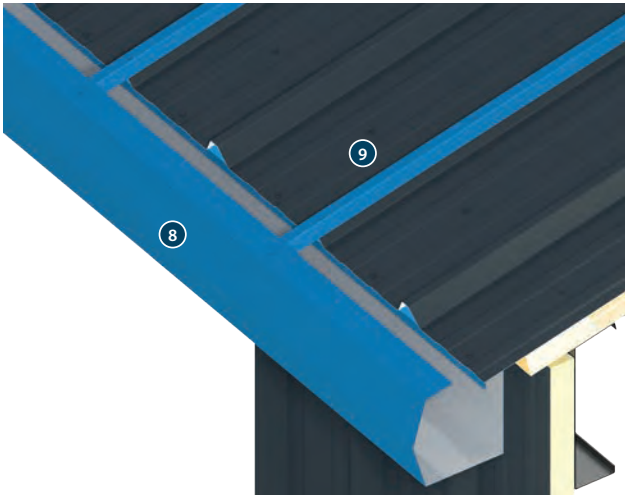


The side lap between panels should be fixed with stitcher screws (2) in the crown at max. 450 mm center. The side lap is protected with a compressible factory applied sealant. It is recommended to use additional gun-grade sealant (site-applied) (7) on coastal sites.

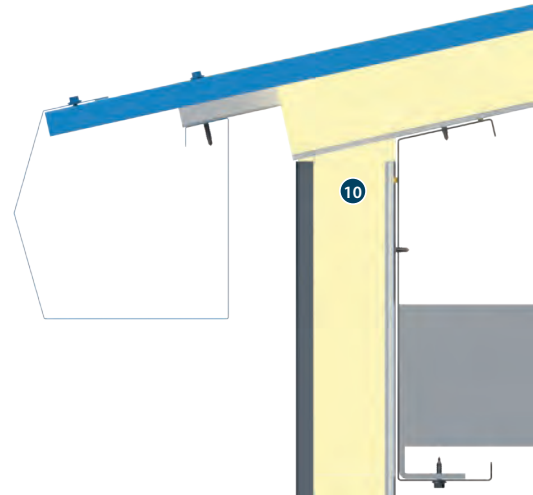
The accessories numbered with (1), (2), ...are detailed at the end of the brochure

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

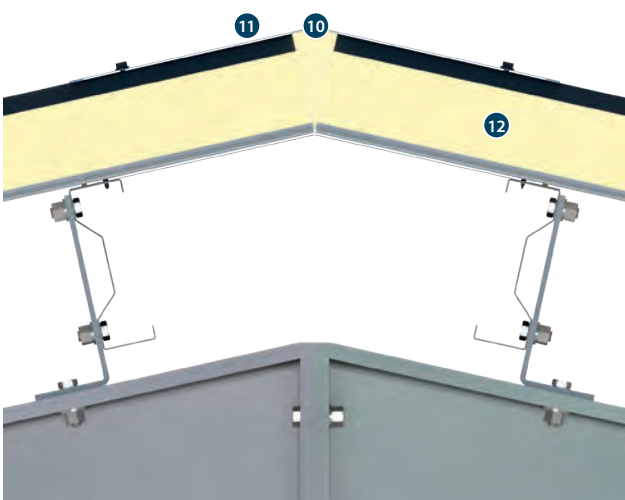


External overhanging gutter **8** supported by support arms **9** fixed to every other crown of panel. A site-applied air sealant **7** must be used between the support arms **9** and the crowns of panels.



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

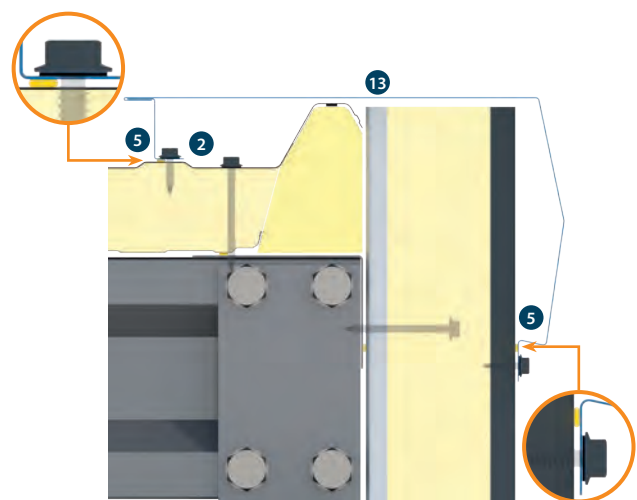
External ridge - Finishings



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.

The accessories numbered with (1), (2), ...are detailed at the end of the brochure

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**.

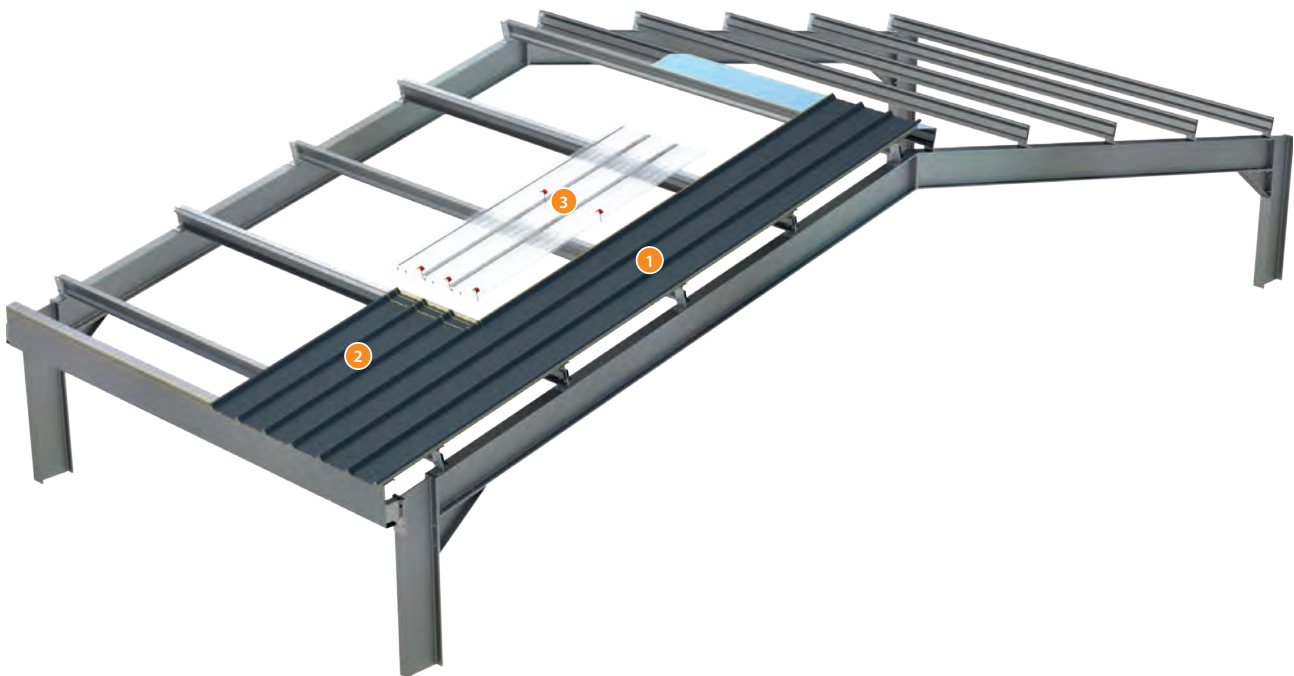
JI Roof PIR - Rooflight, Step 1

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 very good thermal performance which is consistent with the JI Roof PIR panel and in line with the thermal requirements of Building Regulation part L2.

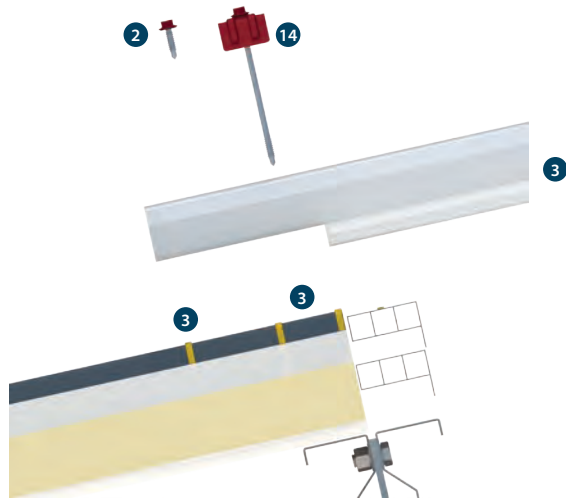


The panels must be placed from eaves to ridge and from right to left as standard (side lap on the other side can be produced on demand). The JI Thermoroof Polycarb must be placed on the same order as any other panel. The panels are to be placed as indicated with 1, 2, and 3.



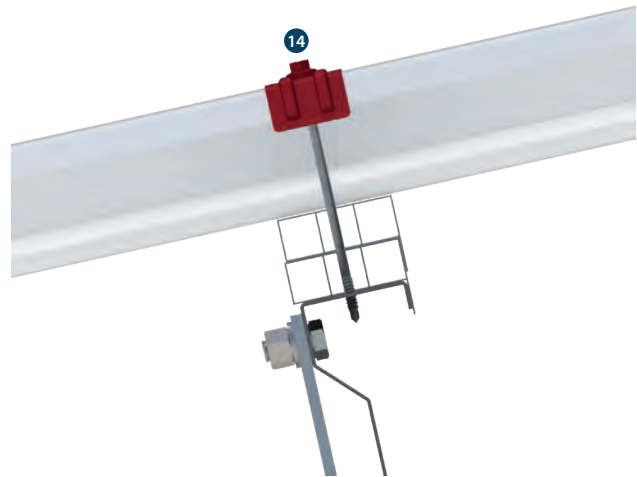
The accessories numbered with (1), (2), ...are detailed at the end of the brochure

Overlap - Rooflight over Panel



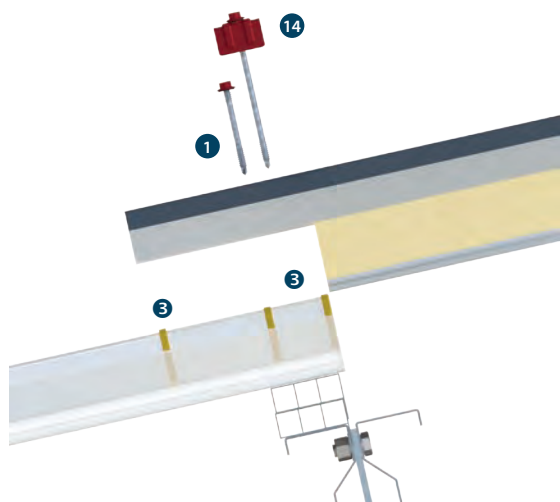
Overlap of JI Thermoroof Polycarb on JI Roof panel with a minimum of 150 mm. Main fastener – crown fixing 14 on each crown. 2 x stitcher screws 2 on each valley at 50 mm from edge. 3 x strips of butyl tape air sealant 6 mm x 5 mm 3 applied on panels and 1 x applied on spacer.

Continuous Rooflight



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

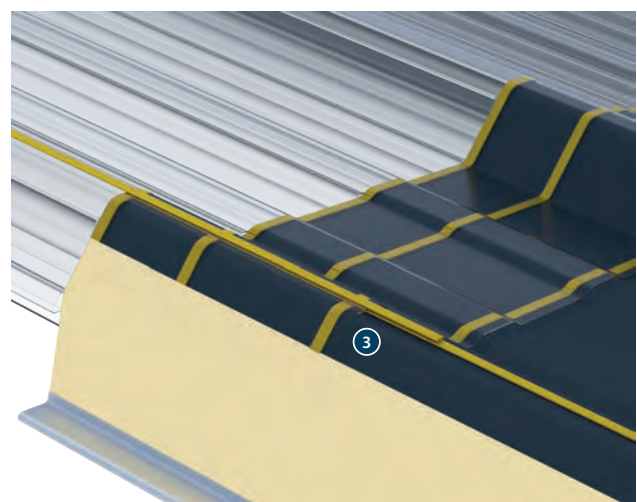
Overlap - Panel over Rooflight



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.

The accessories numbered with (1), (2), ...are detailed at the end of the brochure

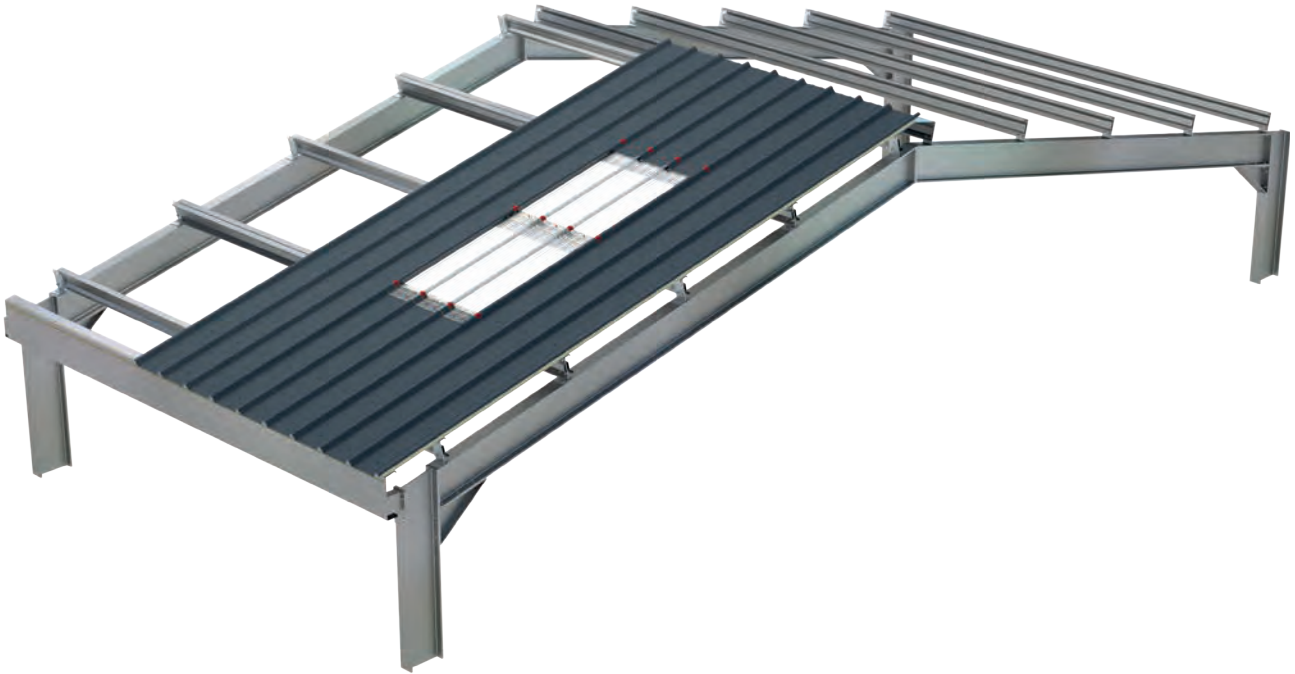
Overlap - Rooflight over Panel



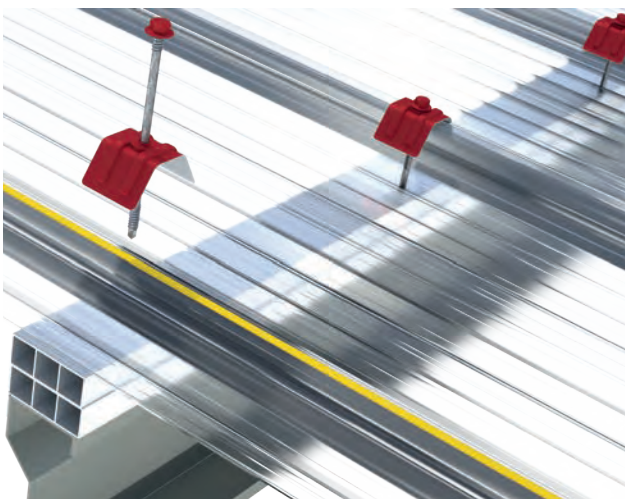
Additional butyl tape air sealant 6 mm x 5 mm 3 overrunning 60-70 mm after end on JI Thermoroof Polycarb as illustrated.

JI Roof PIR - Rooflight, 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.

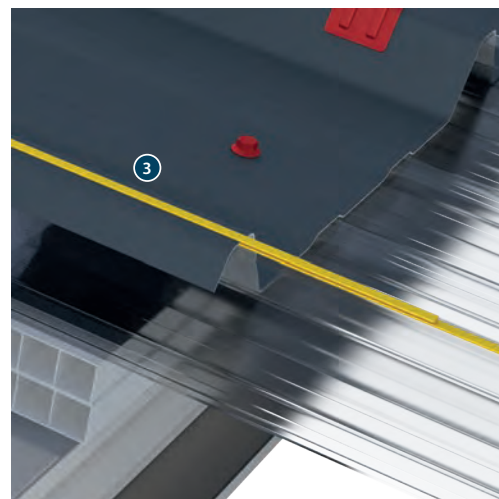


Continuous Rooflight



A saddle washer should be used on every main fixing.

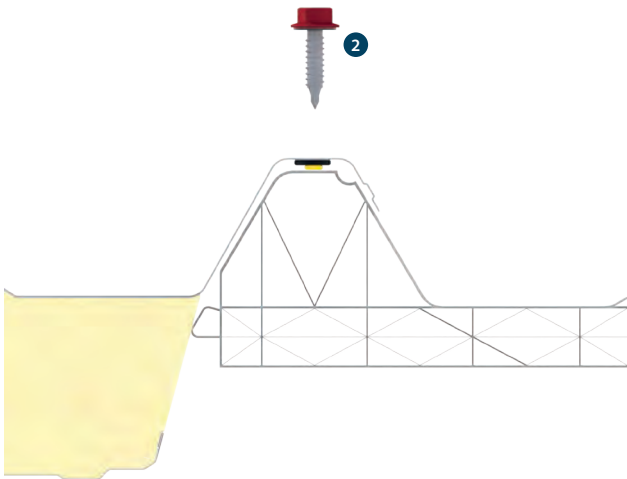
Overlap - Panel over Rooflight



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

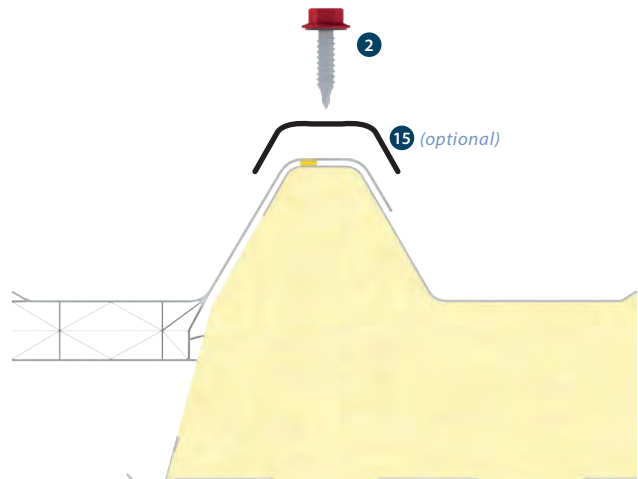
The accessories numbered with (1), (2), ...are detailed at the end of the brochure

Side lap - Panel over Rooflight



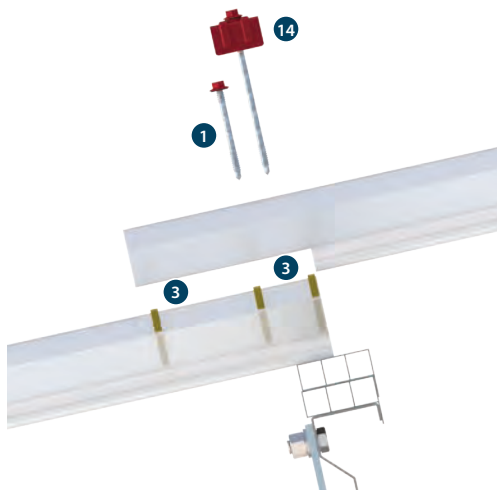
The side lap is protected with a factory applied sealant. It is recommended to use additional gun-grade sealant (site applied) 7 on coastal site. Stitcher screws 2 at 450 mm.

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 can be avoided by applying stitcher screws 2 at every 300 mm.

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. 3 x strips of butyl tape air sealant 6 mm x 5 mm 3 applied on JI ThermorooF Polycarb.

The accessories numbered with (1), (2), ...are detailed at the end of the brochure

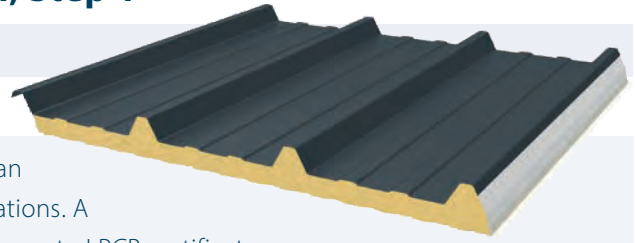
Overlap - between Rooflights



Additional butyl tape air sealant 6 mm x 5 mm 3 overrunning 60-70 mm after end of JI ThermorooF Polycarb as illustrated.

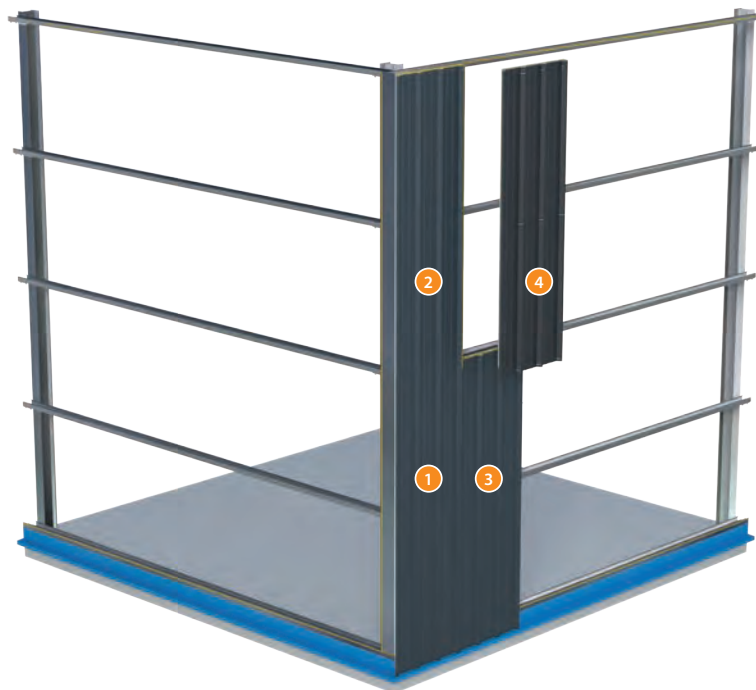
JI Roof PIR - Vertical Wall application, Step 1

JI Roof PIR



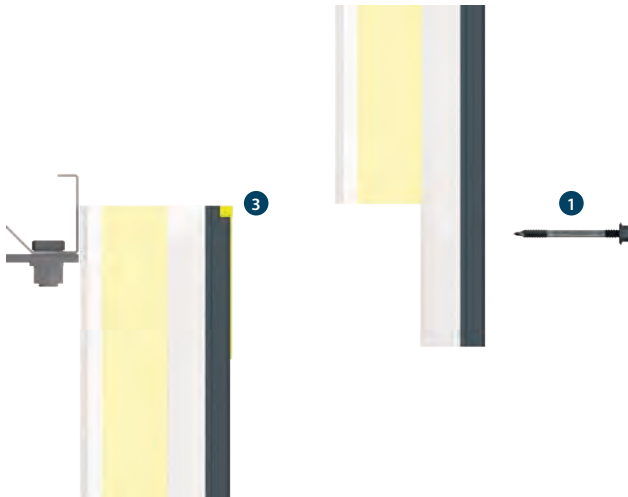
The JI Roof PIR Trapezoidal Insulated Panel has achieved an Ext-B classification to LPCB to be used on the wall applications. A grade Ext-A15 can be achieved when mounted in accordance to LPCB certificate.

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.



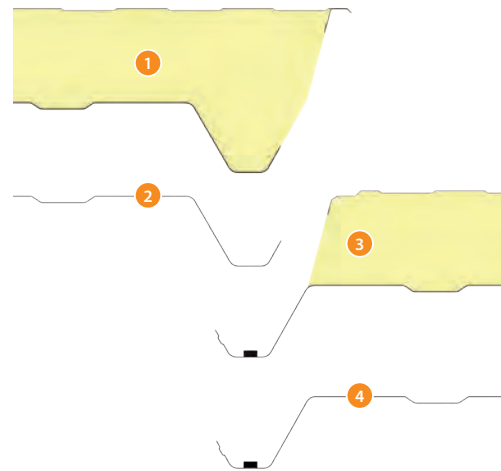
The accessories numbered with (1), (2), ...are detailed at the end of the brochure

Vertical end lap



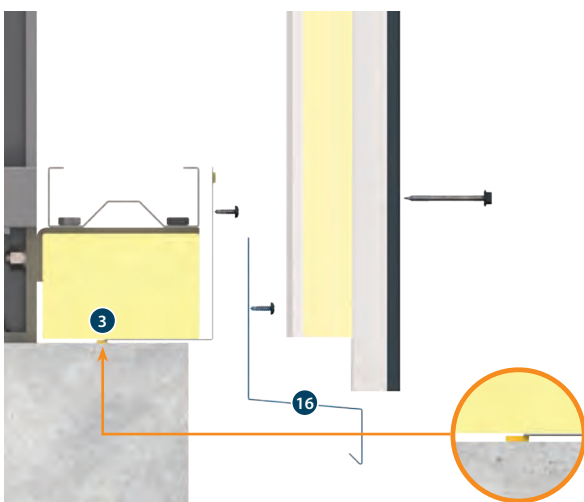
Overlap of JI Roof panels with 100 mm. Main fastener **1** in each valley. 1 x strip of Butyl tape air sealant 6 mm x 5 mm **3** or gun-grade butyl sealant **7**.

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.

The accessories numbered with (1), (2), ...are detailed at the end of the brochure

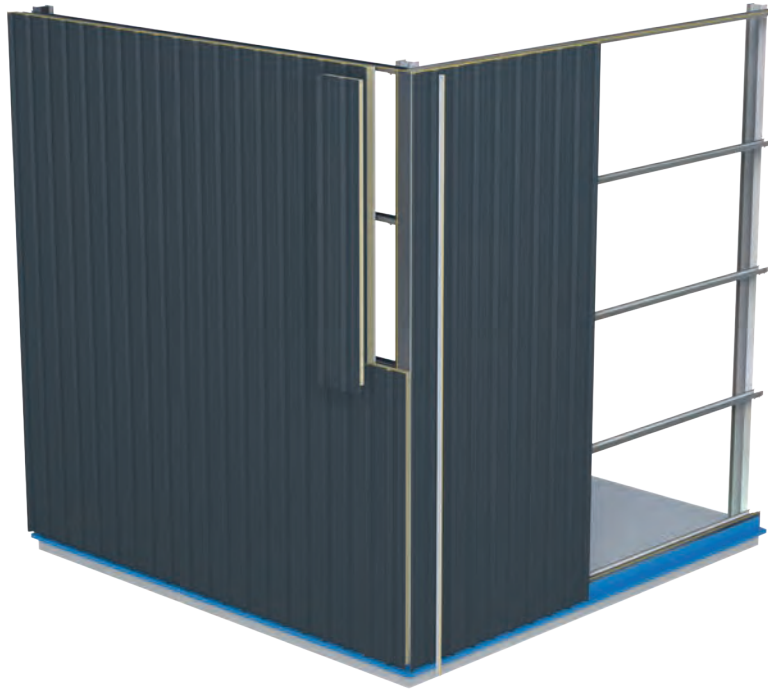
External fill - sealants



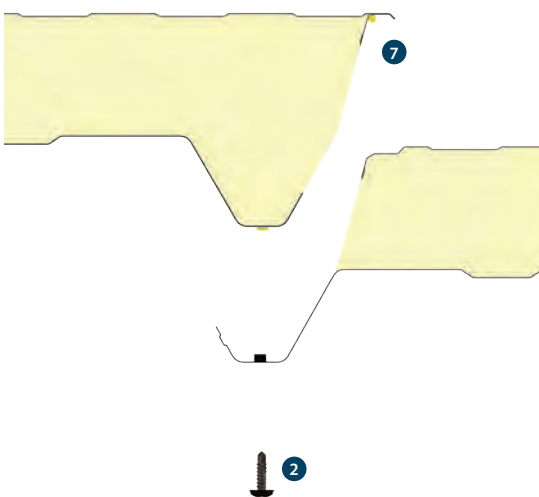
1 x strip of Butyl tape air sealant 6 mm x 5 mm **3** should be applied on supports before placing the panels.

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.



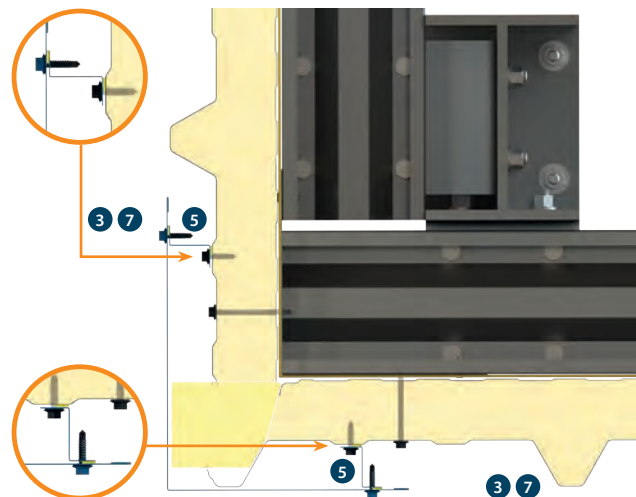
Side lap



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

The accessories numbered with (1), (2), ...are detailed at the end of the brochure

External Corner

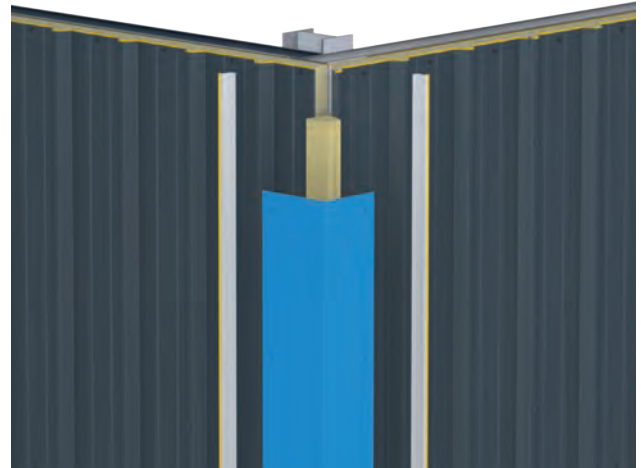


1 x strip of Butyl tape air sealant 6 mm x 5 mm 3 or gun-grade butyl sealant 7 between internal cleader 6 and panels (each side). 1 x strip of Butyl air sealant 9 mm x 3 mm 5 between panel and flashing supports. PIR fire-rated board insulation at the corner.

Finishing 1

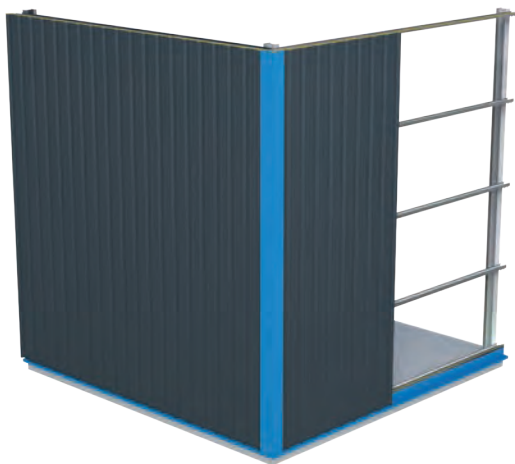


Finishing 1 - Detail

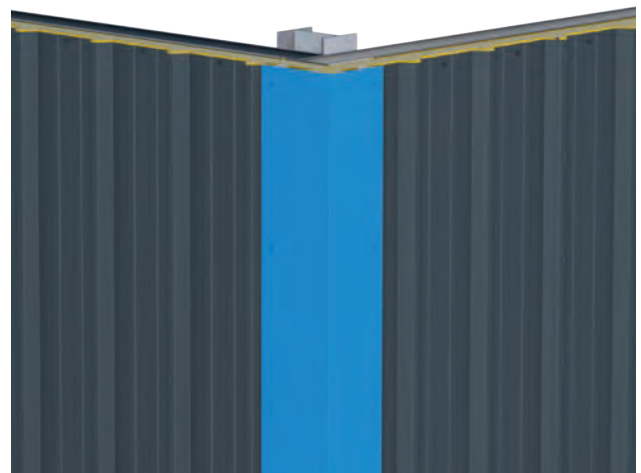


Butyl air sealant should always be used between any surface in contact with JI Roof panel. 1 x strip of Butyl air sealant 9 mm x 3 mm ⁵ is recommended between panel and flashing supports. PIR fire-rated board insulation should be used at the corners to reduce thermal bridging.

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.

The accessories numbered with (1), (2), ...are detailed at the end of the brochure

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 bridg-
ing. (reference ⑩ on construction details)



Profiled foam fillers

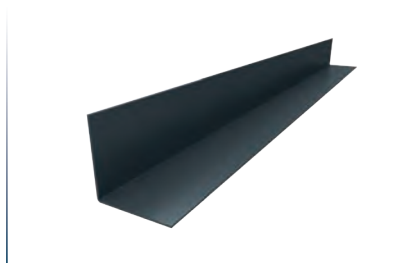
High quality Polyethylene fillers to fit the
profile of JI Roof at the ridge.
(reference ⑫ on construction details)

Flashings and others



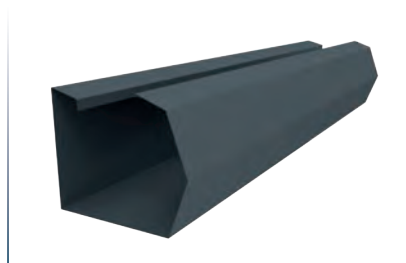
Duopitch ridge internal flashing

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



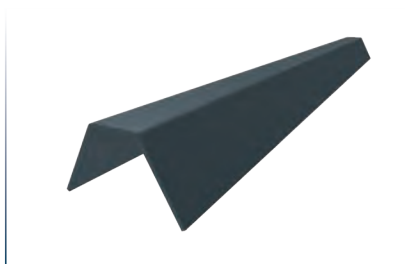
Cleader angle -Structural

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)



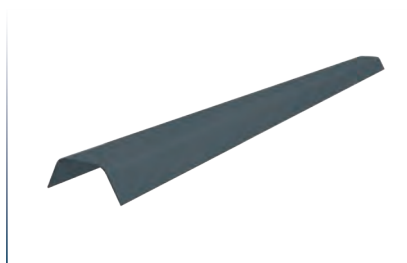
Verge flashing

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



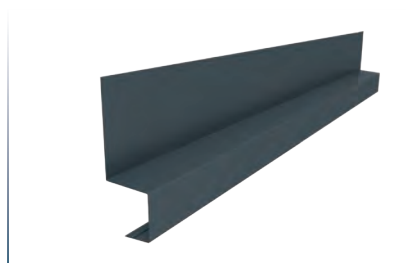
Verge flashing against wall/parapet

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



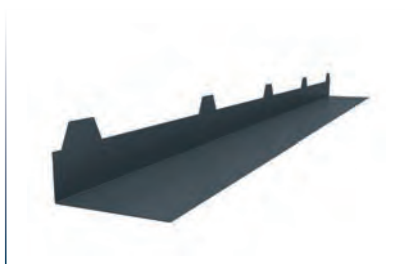
Metal cover strip

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

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Jl Roof PIR for agricultural applications.



Jl Roof PIR industrial roof application.



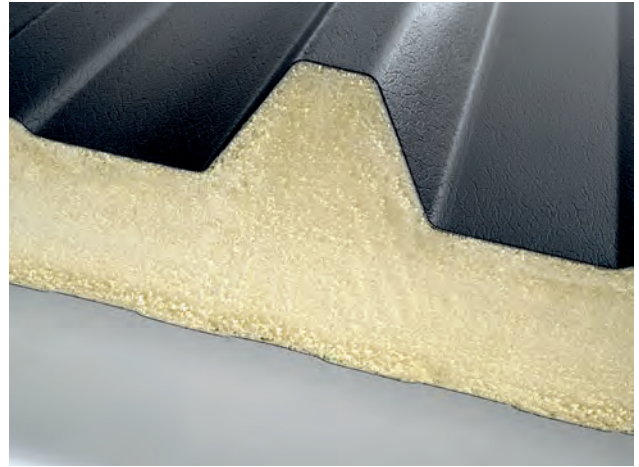
Vineyard storage building made in Jl Roof PIR



Insulated panels in an agricultural application.



Jl Roof PIR used in a residential project.



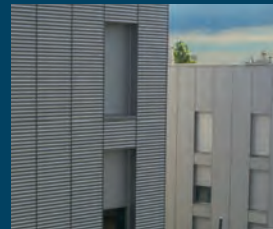
Detail view of the insulation.



Jl Roof PIR as an agricultural solution.



The Jl Roof PIR in an industrial environment.



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

Joris Ide Ltd.

**A9, Elmbridge Court • Gloucester GL3 1JZ • United Kingdom
T +44 (0)1452 412 069 • F +44 (0)1452 358 025 • sales@jorisode.co.uk**

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