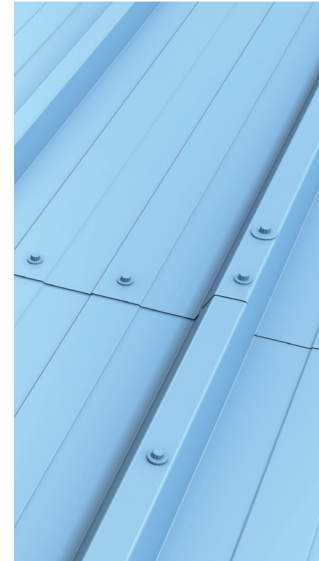
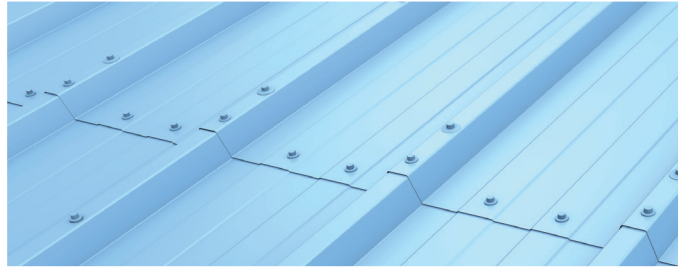


KS1000RW Trapezoidal Roof Panel Installation Guide

Multiple Panels Eaves to Ridge
150mm End Lap



Factory Applied Weather Seal
(FAWS) to side laps only

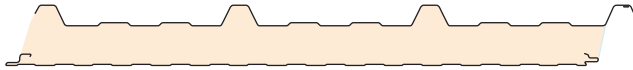


KS1000RW Trapezoidal Roof Panel

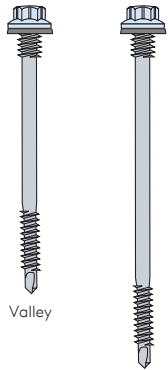
Multiple Panels Eaves to Ridge 150mm End Lap

Components

KS1000RW Trapezoidal Roof Panel



Primary / main fastener with washer
(Carbon Steel)
(Not by Kingspan)



Valley

Crown

Secondary / stitching screws with washer
(Carbon Steel)
(Not by Kingspan)



Fire-rated canister foam
(Not by Kingspan)



Profiled Ridge Filler – (Code: 3RWFILL)



Neutral cure gun-grade sealant
(Not by Kingspan)



Butyl sealant (Code: SEXT)



6x4mm

Cordless drill
(Not by Kingspan)



Depth locator

This installation guide should be read in conjunction with the 'project specific' design drawings and method statements.

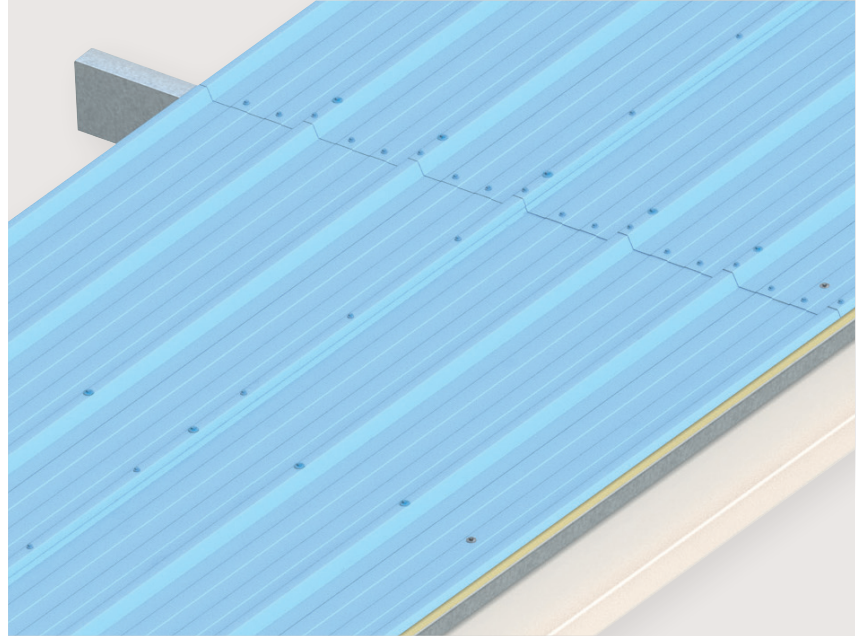
Although this installation guide is deemed to be correct at the time of publication, Kingspan reserve the right to amend the information at any time in the future. Installation Guides are available for the full range of Kingspan Insulated Roof, Wall and Facade Systems.

KS1000RW Trapezoidal Roof Panel

Multiple Panels Eaves to Ridge 150mm End Lap

Notes:

- Ensure steel work is suitable for panels and is within tolerance.
- The end lap purlin position is critical, check location and straightness.
- Number of fasteners must be calculated based on project spans and wind loads.
- Ensure panels are perpendicular to gutter.
- Ensure lower panel is bearing on to purlin by a minimum of 50mm.
- For the purposes of this install guide, Factory Applied Weather Seal (FAWS) is applied to all panel side laps.
- All sealants to suit project specification requirements.
- Protective film to be removed from external weather face of panel & internal liner, where applicable, prior to installation.
- Colour of sealants within this installation guide are for illustration purposes.
- Sheets can be turned up at the ridge.
- Penetrations larger than 300mm x 300mm must be framed out with structural steel.
- Clean swarf off panels immediately when created.
- Ensure panel joints are pulled tight to adjacent panels to close any gaps as works progress.
- This installation guide provides generic guidance on installation methods, however, should be read in conjunction with project specific specifications and construction details.
- Install fasteners with recommended screw gun speed selection for type of steel, use correct socket and drive bit, including depth - locating nose piece, unless fastener has feature to prevent overdriving, in line with fastener manufacturers.



Please contact Kingspan Technical Services Department for guidance:

- Internal air seals
- High humidity & hygiene internal environments
- Project specific advise
- Cyclonic regions and areas of high localised suction

KS1000RW Trapezoidal Roof Panel

Multiple Panels Eaves to Ridge 150mm End Lap

Fastener Layouts

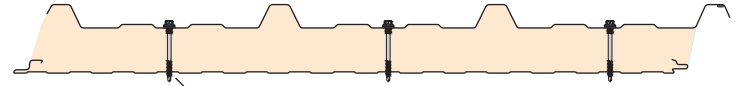
End / Side Lap

End lap stitching screws (6.3mm \varnothing x 25mm long) with min. 8mm dia washers 2 per valley and 1 at each crown, 35mm upslope from panel end. Colour to suit panel



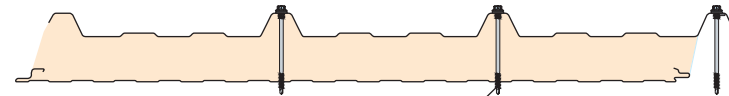
Side lap stitching screws (6.3mm \varnothing x 25mm long) with min. 8mm dia washers at 450mm centres (maximum). Colour to suit panel

Ridge



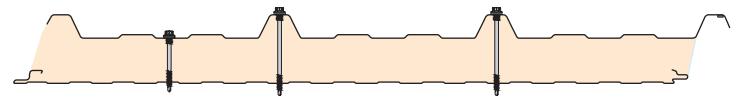
Self-drilling, self tapping primary fasteners with minimum 19mm \varnothing non-ferrous EPDM backed washer, 1 at each valley at each support

Standard Intermediate, Eaves & Side Lap



Self-drilling, self-tapping primary fasteners with minimum 19mm \varnothing non-ferrous EPDM backed washer, 1 at each crown at each support, 135 mm upslope from panel end. Colour to suit panel

Verge

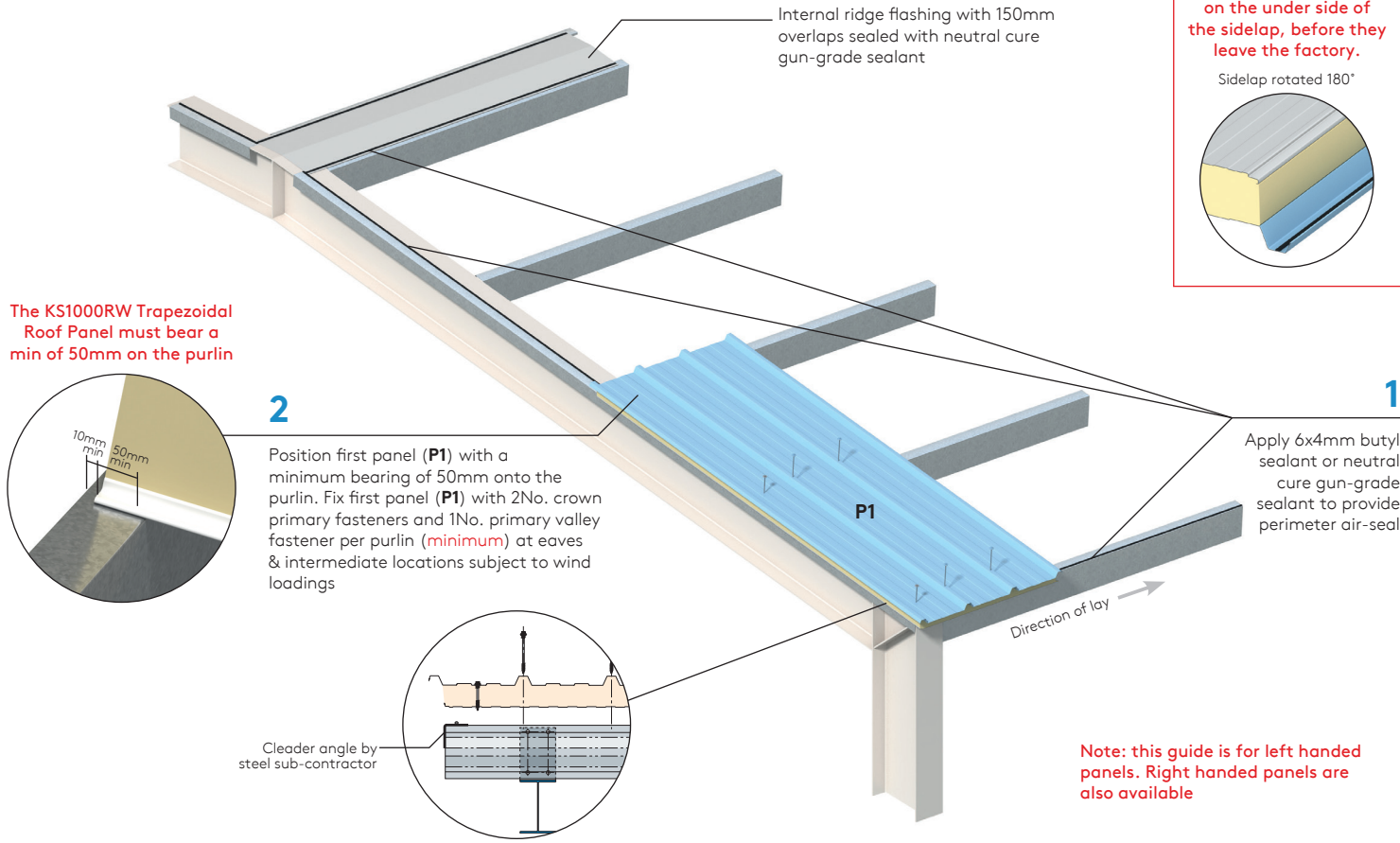


Self-drilling, self tapping primary fasteners with minimum 19mm \varnothing non-ferrous EPDM backed washer. 1 in the valley, 2 in the crown, at each support

**Note: Minimum number of fasteners as illustrated.
Number of fasteners must be calculated on the project specific spans and wind loads.**

KS1000RW Trapezoidal Roof Panel

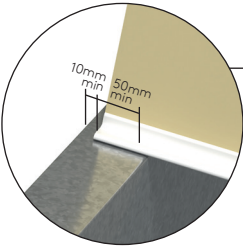
Multiple Panels Eaves to Ridge 150mm End Lap



Internal ridge flashing with 150mm overlaps sealed with neutral cure gun-grade sealant

SIDELAP
A Factory Applied Weather Seal (FAWS) is applied to the panels, on the under side of the sidelap, before they leave the factory.
Sidelap rotated 180°

The KS1000RW Trapezoidal Roof Panel must bear a min of 50mm on the purlin

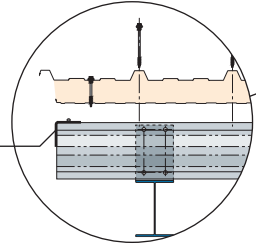


2

Position first panel (P1) with a minimum bearing of 50mm onto the purlin. Fix first panel (P1) with 2No. crown primary fasteners and 1No. primary valley fastener per purlin (minimum) at eaves & intermediate locations subject to wind loadings

1

Apply 6x4mm butyl sealant or neutral cure gun-grade sealant to provide perimeter air-seal



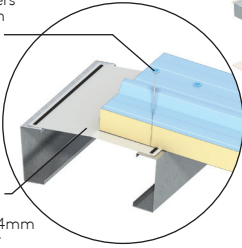
Direction of lay

Note: this guide is for left handed panels. Right handed panels are also available

KS1000RW Trapezoidal Roof Panel

Multiple Panels Eaves to Ridge 150mm End Lap

Primary fasteners located through valleys when covered by flashing



Internal ridge flashing with 150mm overlap sealed with, 6x4mm butyl sealant or neutral cure gun grade sealant

End lap stitching screws x 2 per valley and 1 in every crown

Primary fastener to every crown. 3 fasteners per panel per support

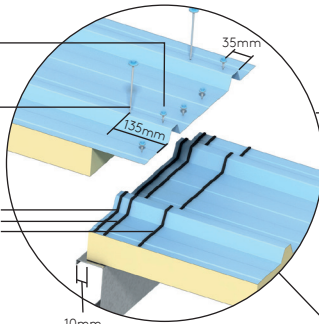
Apply 3No. strips of 6x4mm butyl tape sealant horizontally across the panel end lap.

The lower strip sealant should be positioned 10mm nominal up from the end lap edge.

The intermediate seal to be positioned 50mm down from the top edge of the panel.

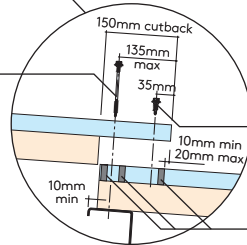
The upper seal should be positioned at the top edge of the panel.

Care should be taken to ensure the butyl tape sealant is not stretched and is firmly placed into the corners of the trapezoidal profile before removal of the release paper.



10mm min

Primary fastener to every crown. 3 fasteners per panel per support



End lap stitching screws x 2 per valley and 1 in every crown

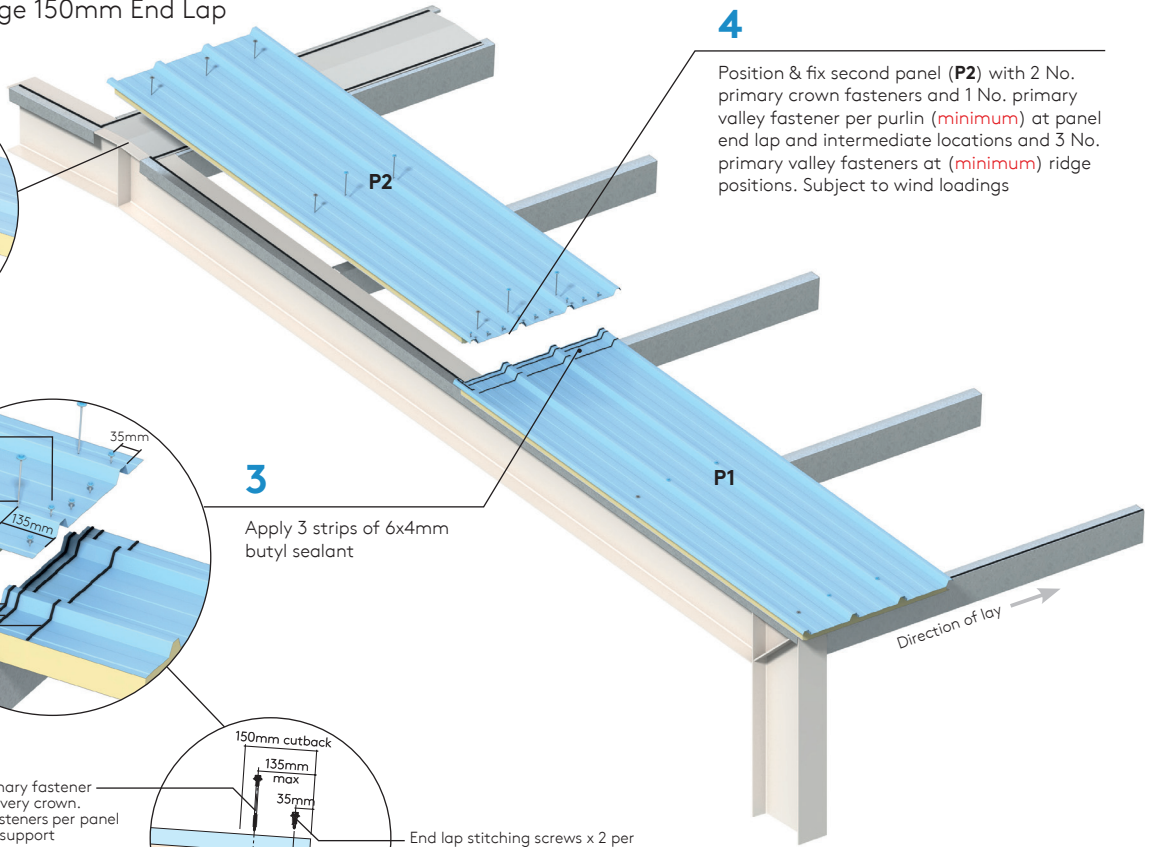
3 rows of 6x4mm butyl sealant

3

Apply 3 strips of 6x4mm butyl sealant

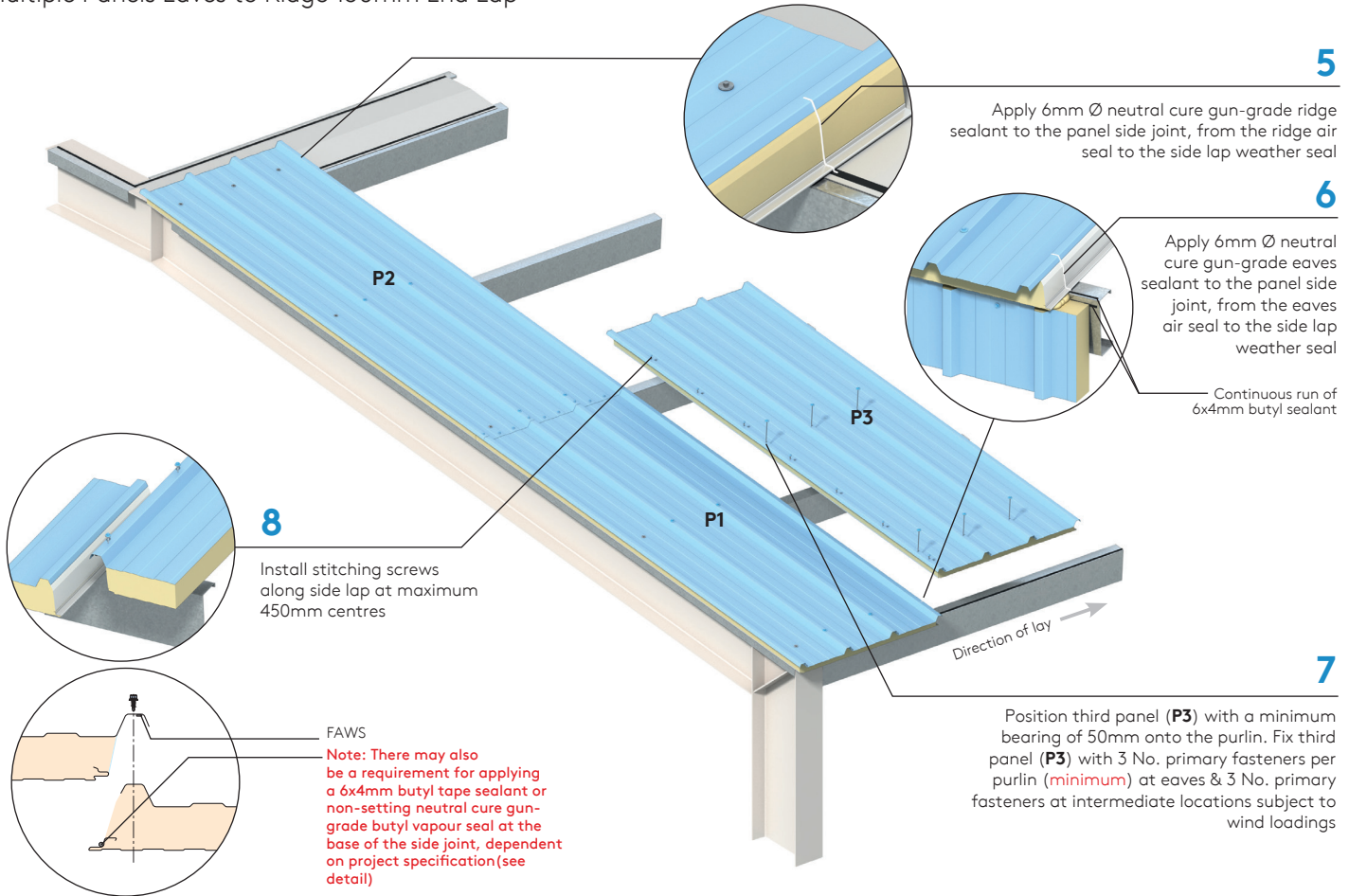
4

Position & fix second panel (P2) with 2 No. primary crown fasteners and 1 No. primary valley fastener per purlin (**minimum**) at panel end lap and intermediate locations and 3 No. primary valley fasteners at (**minimum**) ridge positions. Subject to wind loadings



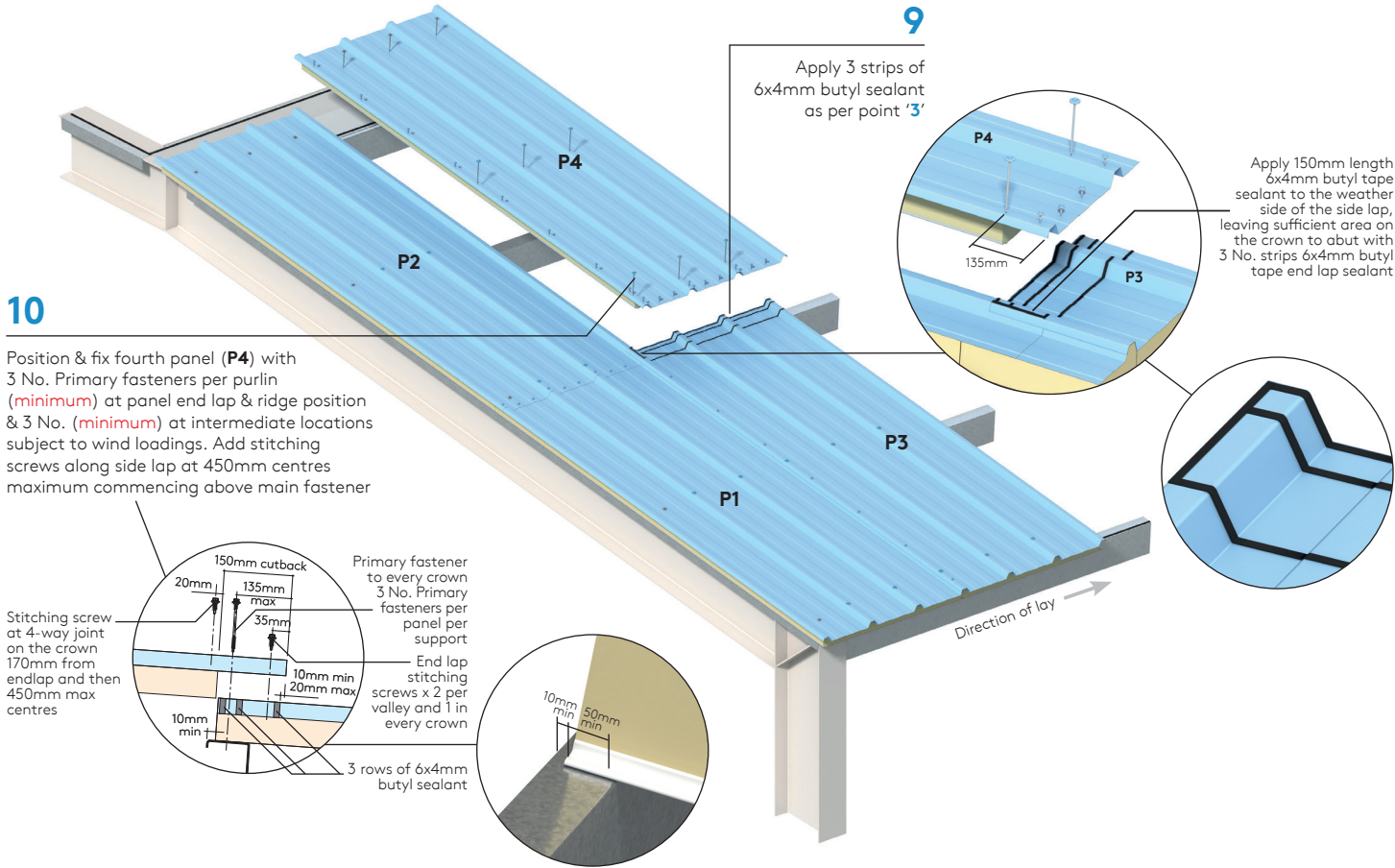
KS1000RW Trapezoidal Roof Panel

Multiple Panels Eaves to Ridge 150mm End Lap



KS1000RW Trapezoidal Roof Panel

Multiple Panels Eaves to Ridge 150mm End Lap



9

Apply 3 strips of 6x4mm butyl sealant as per point '3'

Apply 150mm length 6x4mm butyl tape sealant to the weather side of the side lap, leaving sufficient area on the crown to abut with 3 No. strips 6x4mm butyl tape end lap sealant

10

Position & fix fourth panel (P4) with 3 No. Primary fasteners per purlin (minimum) at panel end lap & ridge position & 3 No. (minimum) at intermediate locations subject to wind loadings. Add stitching screws along side lap at 450mm centres maximum commencing above main fastener

150mm cutback
 20mm
 135mm max
 35mm
 10mm min
 20mm max
 10mm min
 3 rows of 6x4mm butyl sealant

Primary fastener to every crown
 3 No. Primary fasteners per panel per support

End lap stitching screws x 2 per valley and 1 in every crown

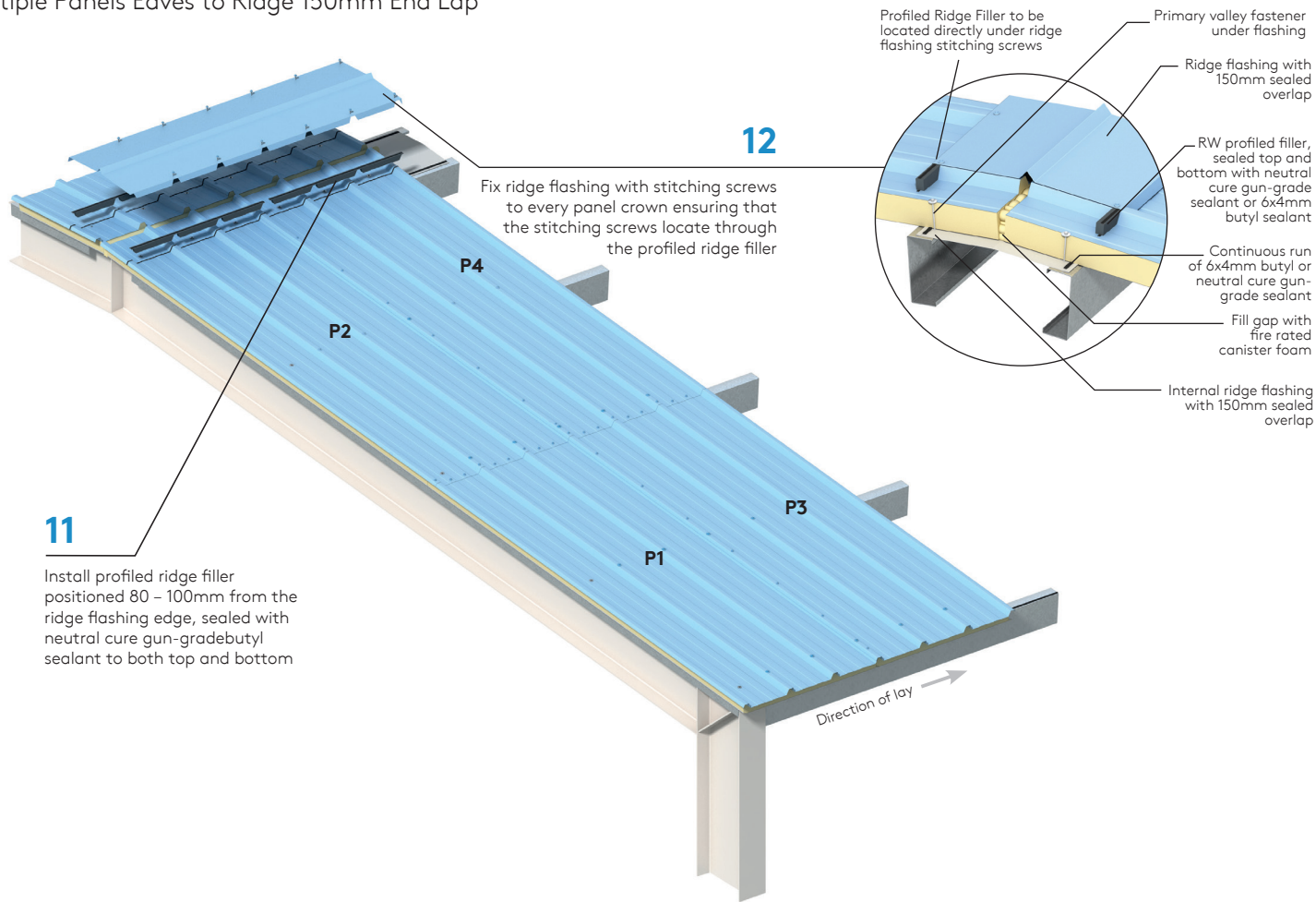
Stitching screw at 4-way joint on the crown 170mm from endlap and then 450mm max centres

10mm min
 50mm min

Direction of lay

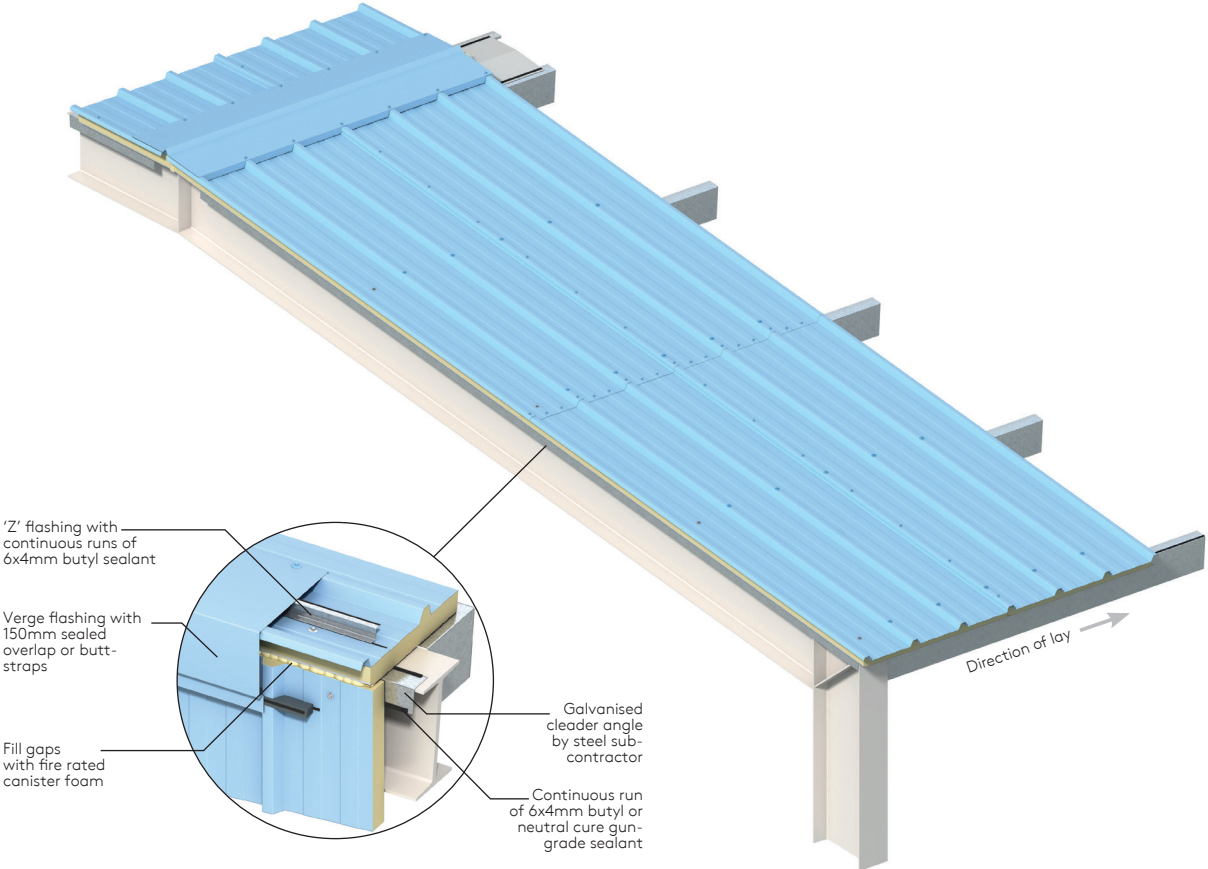
KS1000RW Trapezoidal Roof Panel

Multiple Panels Eaves to Ridge 150mm End Lap



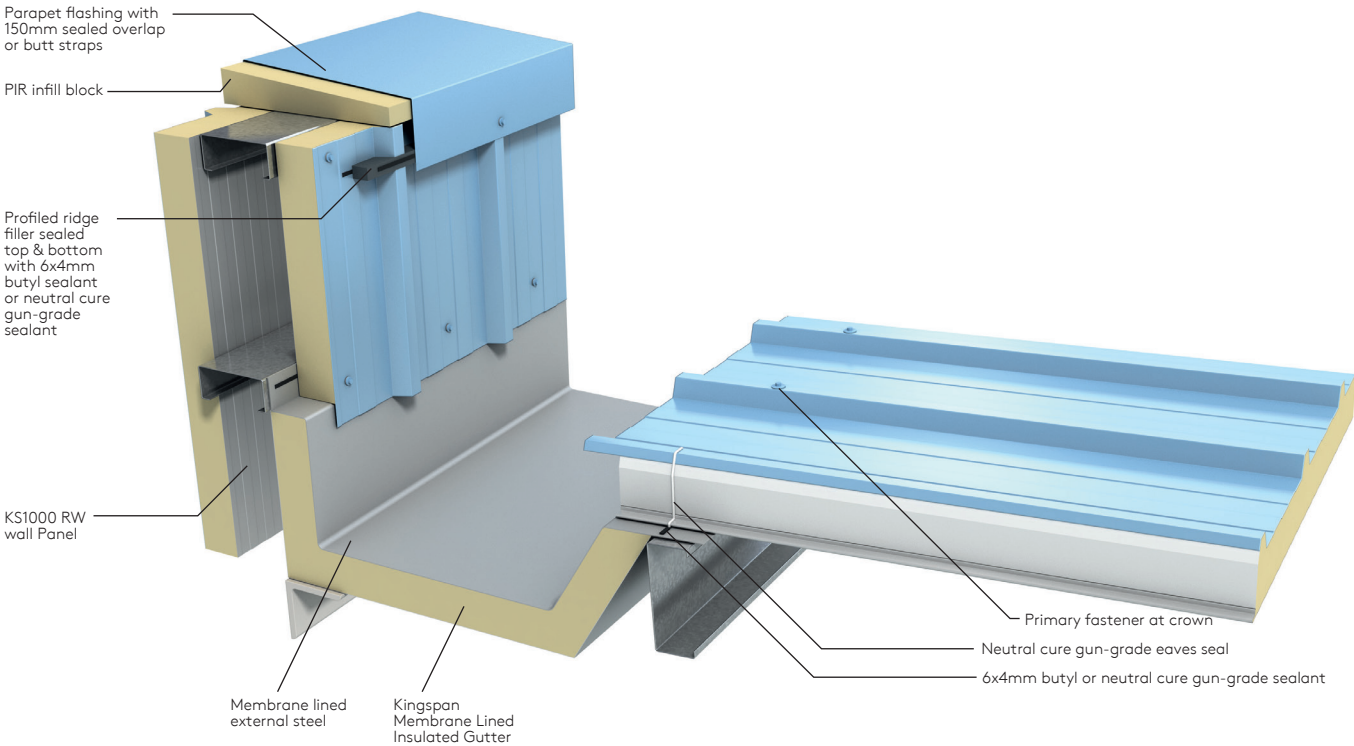
KS1000RW Trapezoidal Roof Panel

Multiple Panels Eaves to Ridge 150mm End Lap



KS1000RW Trapezoidal Roof Panel

Multiple Panels Eaves to Ridge 150mm End Lap



Panel Handling

Appropriate personnel protective equipment should always be worn to avoid cuts and abrasions to installers and panels.

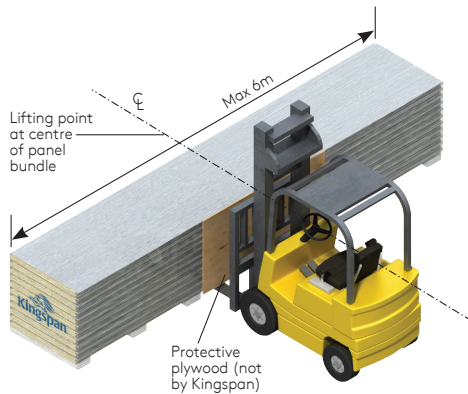
Individual panels should always be lifted from a pack and not dragged over others.

The weight of individual panels for lifting can be determined from the information on the packing slip.

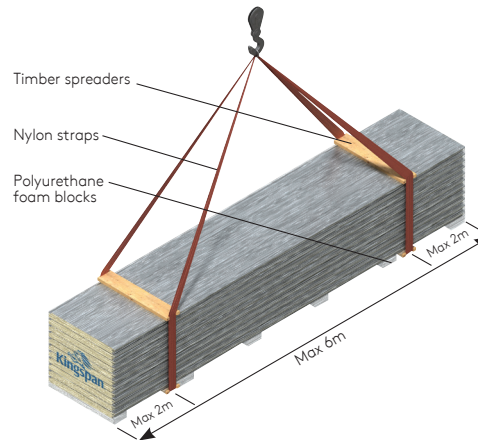
For larger panels the contractor would normally arrange to use appropriate material installation equipment to help lift the panels into position.

Protecting Film

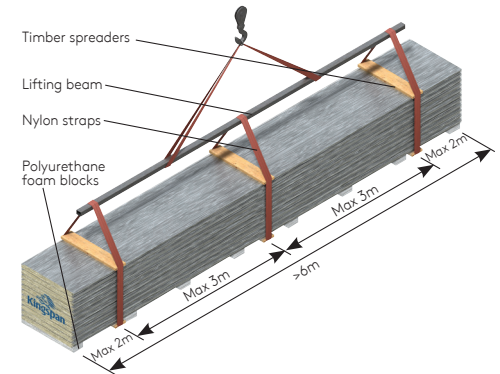
When panels are supplied with a plastic protective film this should be removed during site installation.



The recommended loading / unloading method for bundles less than or equal to 6m is to use a single forklift with widely spaced forks placed under the centre of the bundle as shown.



The recommended lifting method for bundles no more than or equal to 6m can be handled with a crane by using nylon straps and timber spreaders as shown.



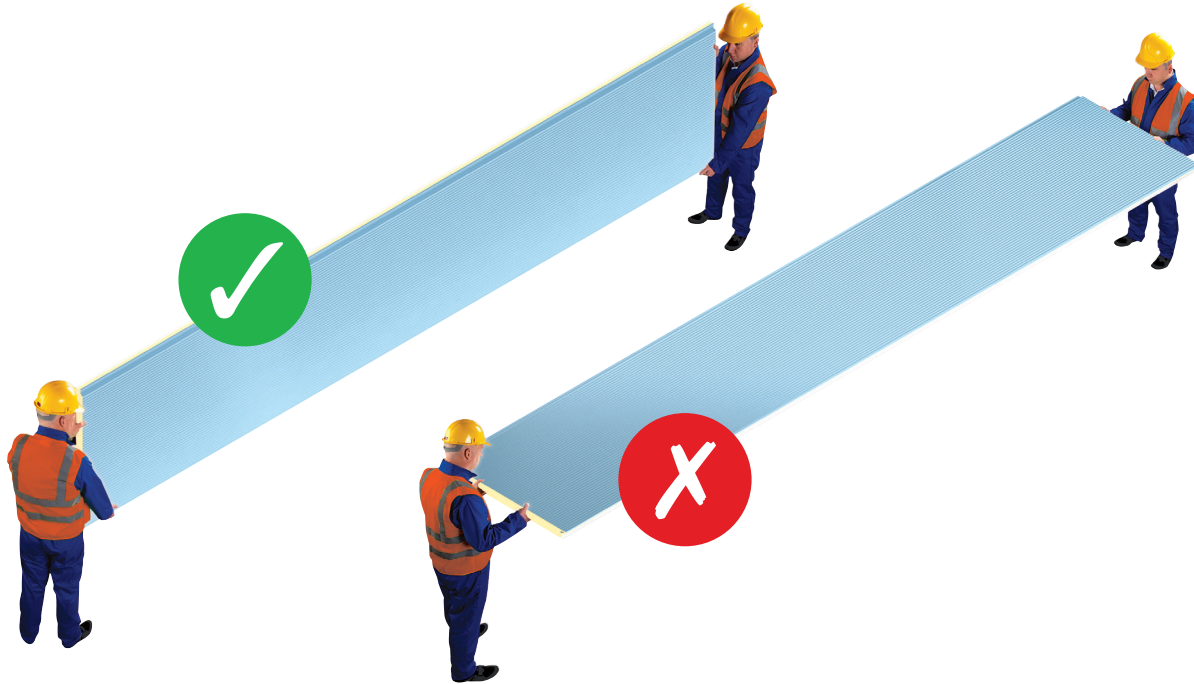
The recommended lifting method for bundles more than 6m, by crane, is by using three points of support. To prevent damage from nylon straps, use timber spreaders at top and bottom at lifting locations as shown.

Panel Handling

Correct and Incorrect Panel Handling

Caution

Individual panels should never be moved in a flat position as excessive flexing may result. Excessive flexing ruptures a panel's core, permanently distorts the facings and may lead to thermal blistering. When moving a panel, it must be turned on its edge first, then supported at each end with as many men as necessary to safely handle.



Installation guides are available for most of Kingspan insulated roof and wall panels.
For the most up to date version of this Installation guide please [click here](#) or scan the QR code below. Alternatively, please call Kingspan on:

AUS: +61 2 8889 3000
www.kingspanpanels.com.au



For the product offering in other markets please contact your local sales representative or visit www.kingspanpanels.com

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