

Insulated Roof & Wall Panels
Australia

KS1000RW Trapezoidal Wall Panel Installation Guide

Vertically Laid



KS1000RW Trapezoidal Wall Panel

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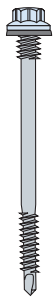
Components

KS1000RW Trapezoidal Wall Panel

Factory Applied Weather Seal (FAWS)



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



Valley

Stitching screw with washer
(Carbon Steel)
(Not by Kingspan)



Neutral cure gun-grade butyl sealant
(Not by Kingspan)



PIR Insulation
(Not by Kingspan)



Zed support



Drip flashing



Butyl tape sealants
(Code: SEXT)



6x4mm

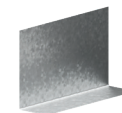
Fire rated canister foam
(Not by Kingspan)



External corner flashing



Continuous ledger angle



Profiled ridge filler (Code: 3RWFILL)



Continuous base support angle



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.

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Notes:

- Ensure steelwork is suitably lined, levelled and within tolerance.
- Panels must be installed in a tiered sequence only.
- The end lap support position is critical, check location and straightness.
- Cover plates required where gap in s support steel is greater than 20mm.
- All fasteners to be carbon steel to maintain panel warranty
- Cut side of panel to suit required width at ground level before installation of corner panels P7 and P8 to suit.
- Gun-grade sealant type – neutral cure gun-grade sealant.
- This is a generic KS1000RW wall installation guide and details may differ from project to project. Project specific construction details must be used.
- The end lap support position is critical, check location and straightness.
- Number of fasteners must be calculated based on project spans and wind loads.
- See specific details for high humidity applications.
- 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

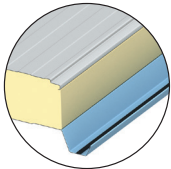
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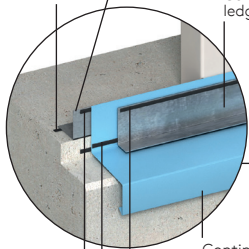
SIDELAP

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°



Continuous run of silicone sealant
Continuous base support angle
Continuous ledger angle



Continuous runs of 6x4mm butyl or neutral cure gun grade butyl sealant
Continuous base drip flashing

Note: The ledger angle prevents the panel from sitting on the drip flashing

1

Apply continuous runs of 6x4mm butyl sealant or runs of neutral cure gun grade butyl sealant to provide internal perimeter air seals

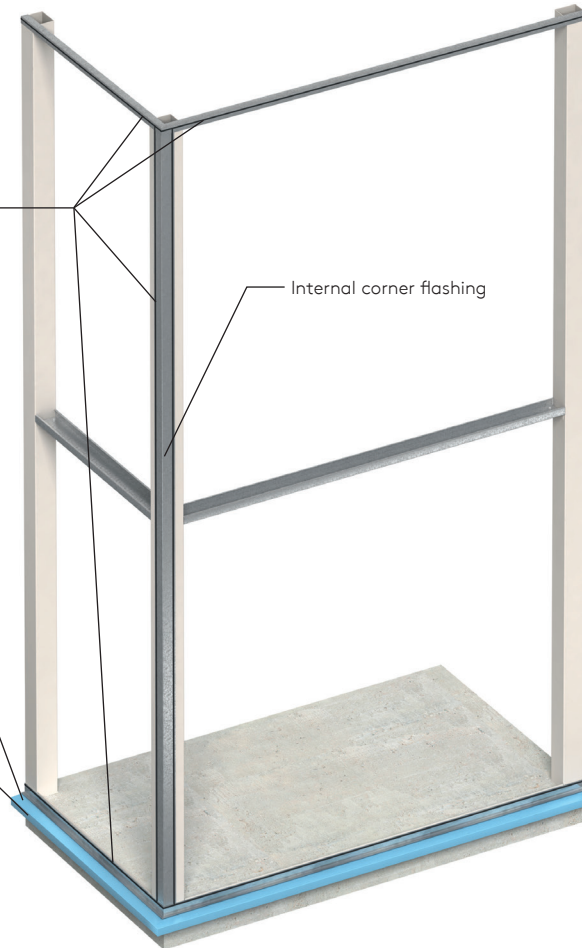
Internal corner flashing

2

Line, level and fix drip flashing to structure. Joints in the drip flashing to incorporate butt straps sealed with two runs of neutral cure gun-grade butyl sealant

3

Fit ledger angle through drip flashing, into continuous base support angle, using low profile fasteners. An air seal consisting of continuous run of 6x4mm butyl sealant or bead of neutral cure gun-grade butyl sealant is required between drip flashing and ledger angle, and between ledger angle and RW panel



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2

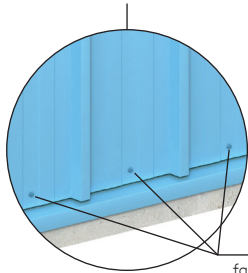
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Apply two continuous runs of 6x4mm butyl sealant across full width of panel at end lap position

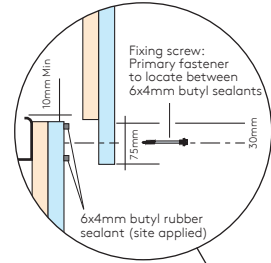
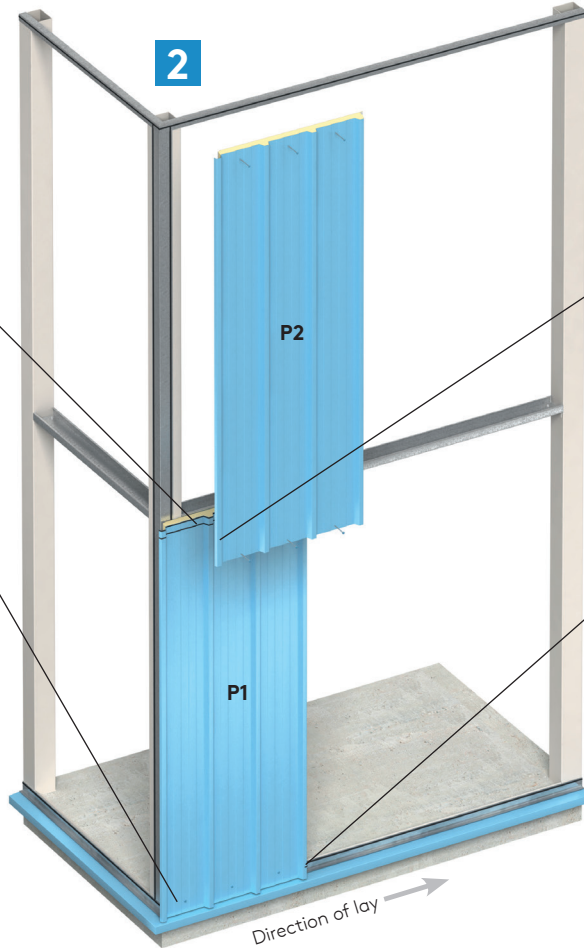
4

Install first panel (P1) with min. 3 No. primary fasteners (minimum), into panel valley at each steel support location ensuring panel is vertically plumb.

Note: Some installations might require additional fixings depending on wind loadings/specification. Check project specific details



3 No. primary fasteners at each panel end and intermediate steel support locations

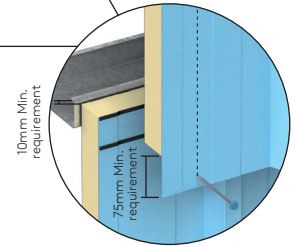


Fixing screw: Primary fastener to locate between 6x4mm butyl sealants

6x4mm butyl rubber sealant (site applied)

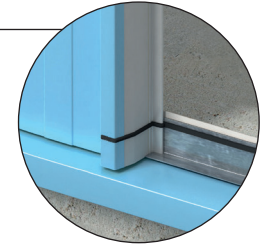
7

Install second panel (P2) with min. 3 No. primary fasteners (minimum), into panel valley, at each steel support location, ensuring the primary fasteners fix through lower panel (P1) and inbetween the two runs of 6x4mm butyl sealant



6

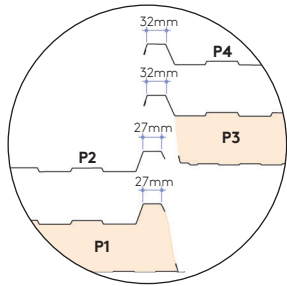
Apply 6mm dia neutral cure gun-grade butyl sealant to side of panel. Engage with previously installed perimeter air sealant on steel work to meet FAWS on proceeding panel



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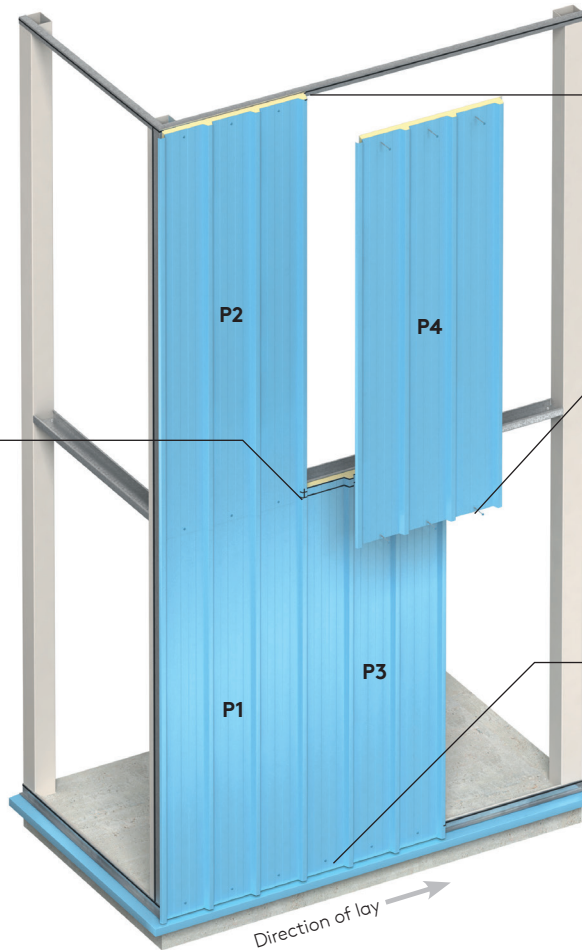
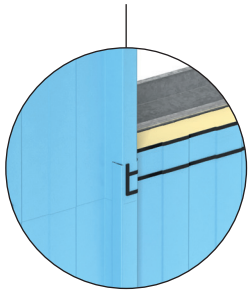
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Enlargement of Overlap



10

Repeat processes 5 and 7. An additional 75mm run of 6x4mm butyl sealant is required at top of panel (P3) on the side lap



8

Apply 6 mm dia neutral cure gun-grade butyl sealant to side of panel.

Engage with previously installed perimeter air sealant on steel work to meet FAWS on proceeding panel

11

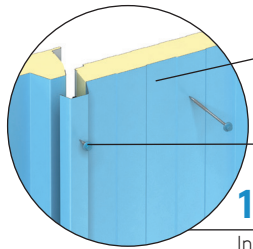
Install fourth panel (P4) ensuring side lap correctly engages and panel correctly aligns with external profile. Fix panel with min. 3 No. primary fasteners (minimum), into panel valleys, at each steel support location as per item 7

9

Install third panel (P3) ensuring side lap correctly engages and panel correctly aligns with external profile. Fix panel with 3 No. primary fasteners (minimum), into panel valley, at each sheeting rail location. Install sealant as per item 6

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Stitching screws fixed
every 450mm centres
commencing 50mm
from panel end

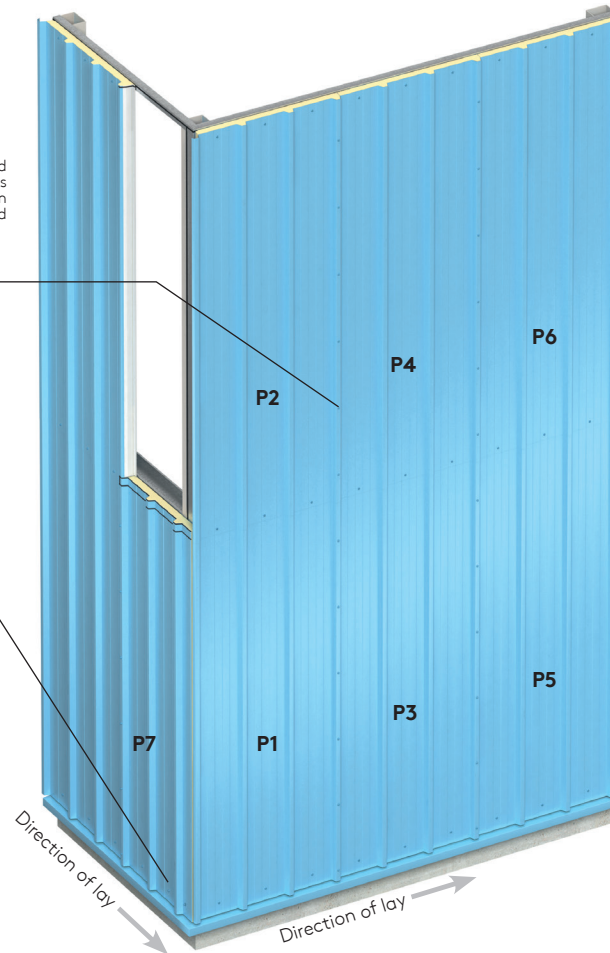
12

Install stitching screws
along side lap at
maximum 450mm
centres commencing
50mm from panel end

13

Cut panel (**P7**) to size using a
metal cutting type circular saw.
Install with min. 3 No. primary
fasteners (minimum), into panel
valley, at each steel support
location.

**Note: Do not use abrasive wheel
cutter. All cutting should be done
at ground level**



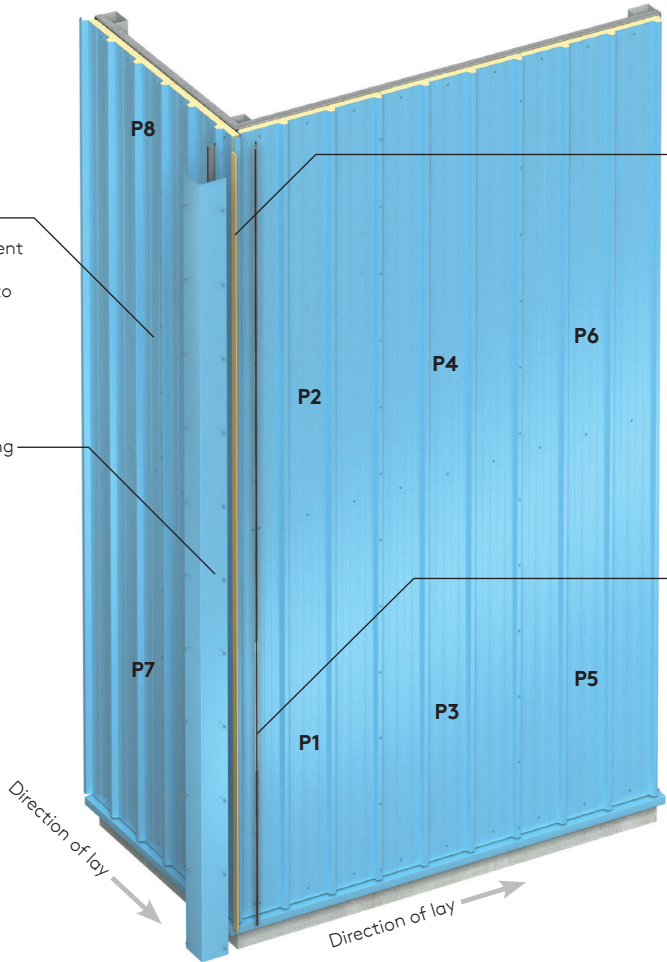
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For installing subsequent panels (**P7**) and (**P8**) follow previous steps to **1** and **13**

External corner flashing



15

Site applied PIR insulation or fire rated canister foam

16

Apply 6x4mm butyl sealant to external side of Z Support to form seal with external corner flashing

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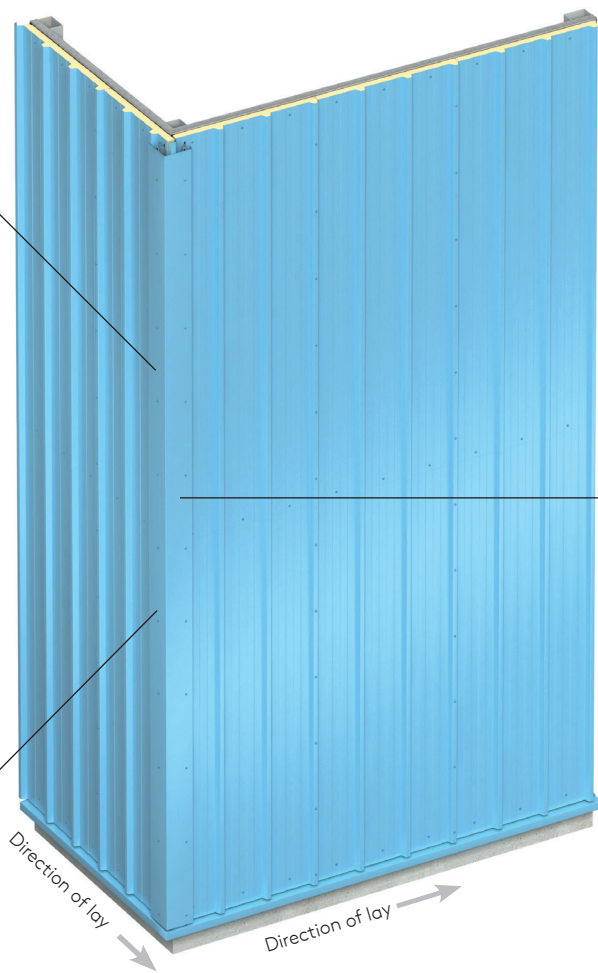
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Corner flashing with 150mm sealed overlap or butt straps. Sealed with continuous runs of neutral cure gun grade butyl sealant

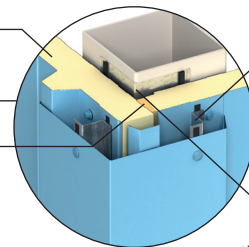
18

Corner flashing to be stitched at 450mm centres into Z support



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Gaps filled with PIR
fire rated canister
foam



Z support
sealed with
6x4mm butyl
sealant

Internal flashing
with 150mm sealed
overlap. Sealed with
continuous run of 6x4mm
butyl sealant

Panel Handling

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

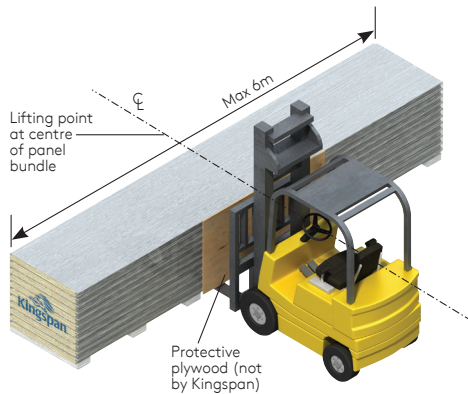
Individual panels should always be lifted from a pack and not dragged over others.

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

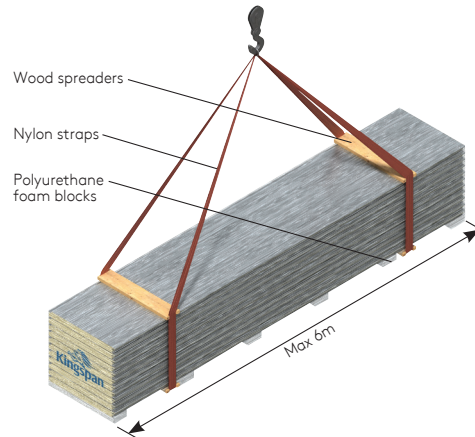
For larger panels the contractor would normally arrange to use appropriate material installation equipment to help lift the panels into position.

Protecting Film

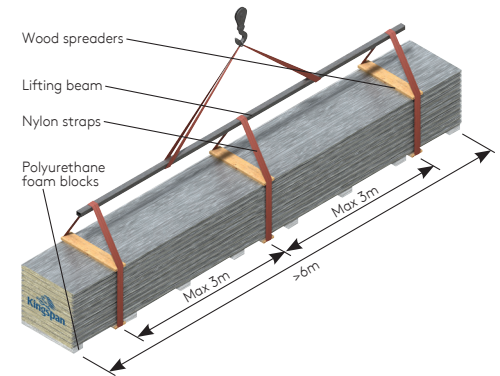
When panels are supplied with a plastic protective film this should be removed during site installation.



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 wood spreaders as shown.



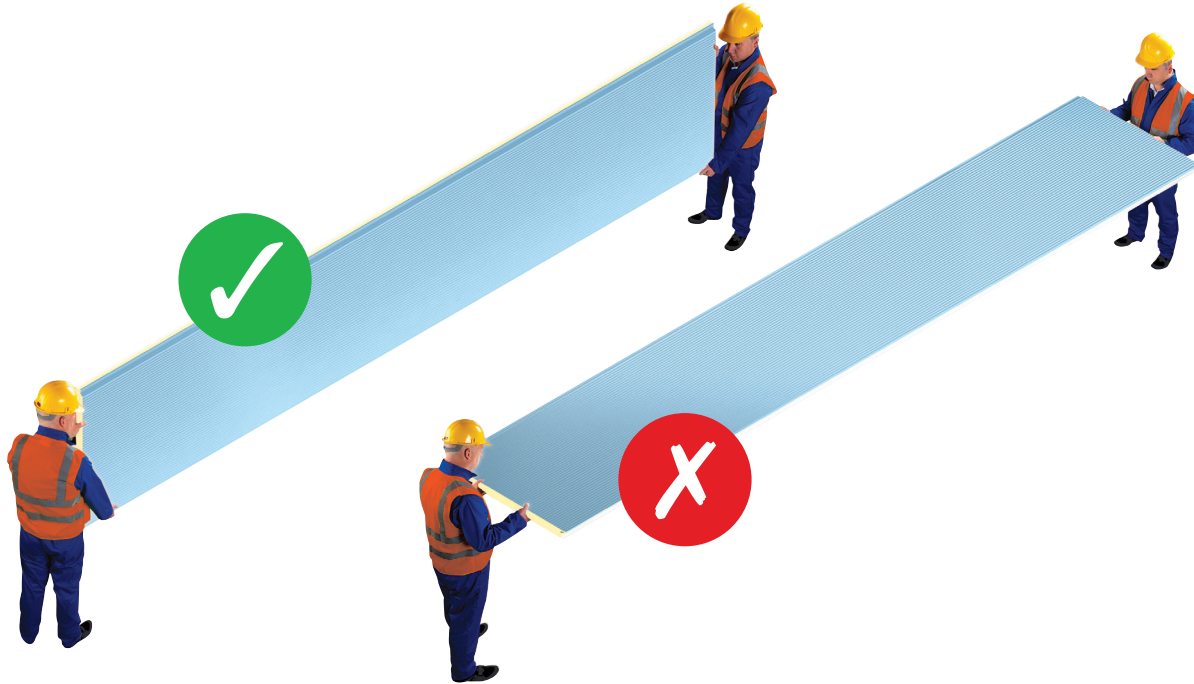
The recommended lifting method for bundles more than 6m, by crane, is by using three points of support. To prevent damage from nylon straps, use wood spreaders at top and bottom at lifting locations as shown.

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:

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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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