

Architectural Wall Panel Installation Guide

Horizontally Laid



Architectural Wall Panel

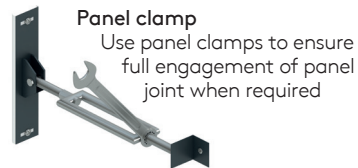
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Components

Architectural Wall Panel



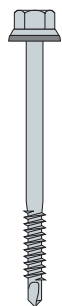
Factory Applied
Weather Seal
(FAWS)



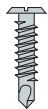
Panel clamp

Use panel clamps to ensure full engagement of panel joint when required

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



Low profile fastener
(Carbon Steel)
(Not by Kingspan)



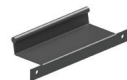
Galvanised drip support angle



Drip flashing



Panel bearer
(Code: PB50/80/100)



Top hat
(Code: TOPHATA)



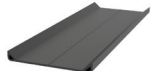
Top hat insert
(Code: TOPHATINF)



PIR Insulation
(Not by Kingspan)



VJ2 EPDM bubble gasket
(Code: VJ2)



Butt strap
(Code: AWPBS)



AWP filler
(Code: 3FILL)



Fire rated canister foam
(Not by Kingspan)



Neutral cure gun-grade sealant
(Not by Kingspan)



Butyl tape sealants
(Code: SEXT)



6x4mm

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.

Please call Kingspan Technical Services on:
Aus Tel: (02) 8889 3000

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Horizontally Laid

Note:

- Ensure steelwork is suitably lined, levelled and within tolerance.
- Minimum bearing face for vertical joint steelwork is 140mm.
- Minimum bearing face for intermediate support is 60mm. All subject to required number of primary panel fastener and wind loadings.
- Tape sealant referred to is butyl tape sealant.
- All fasteners to be carbon steel to maintain panel warranty.
- Gun-grade sealant type – neutral cure gun-grade sealant.
- Number of fasteners must be calculated based on project spans and wind loads.
- See specific details for high humidity applications.
- Protective film to be removed from external weather face of panel & internal liner where applicable prior to installation.
- 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.
- Use panel clamps to ensure full engagement of panel joint when required.



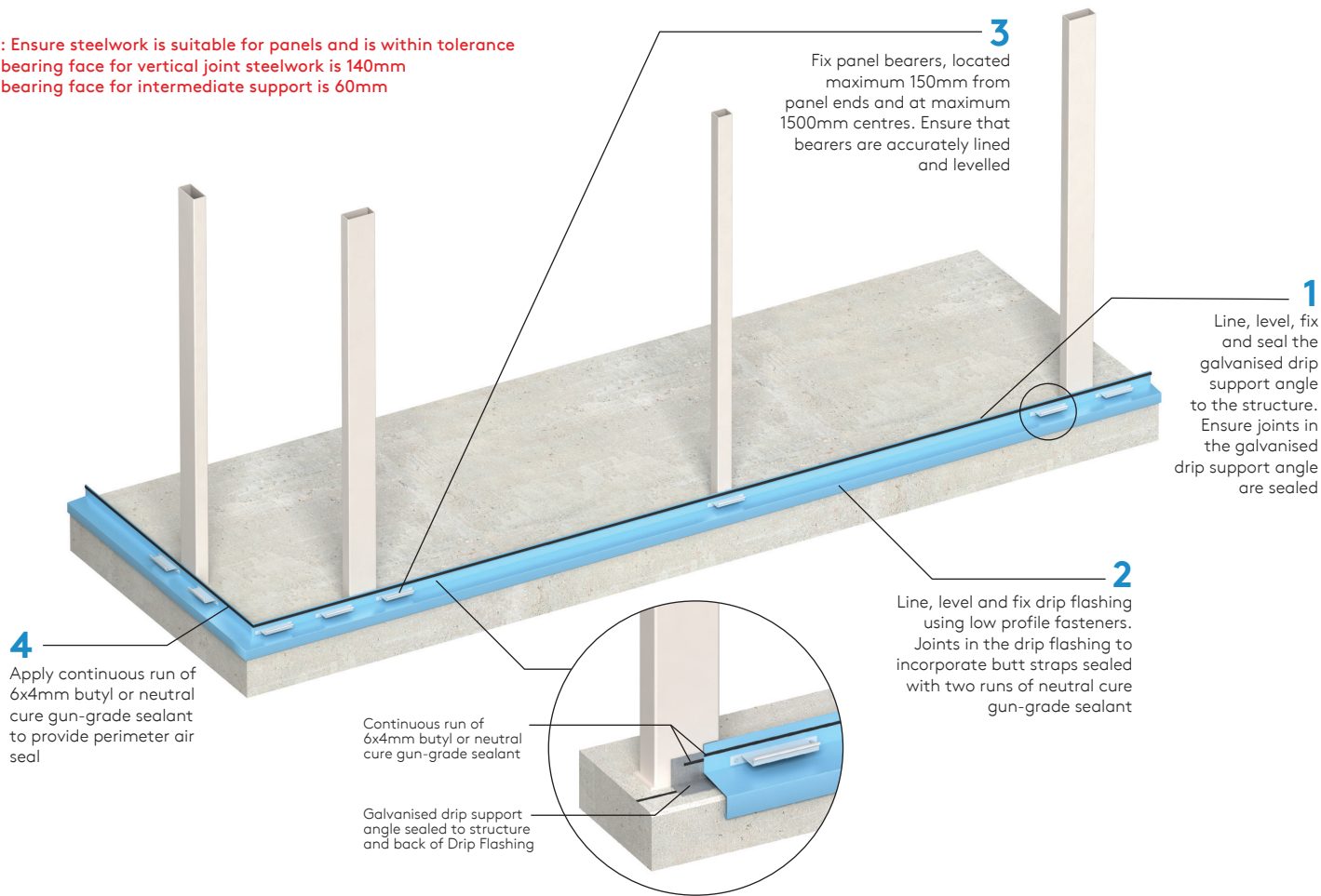
Please contact Kingspan Technical Services Department for guidance:

- Internal air seals
- High humidity & hygiene internal environment
- Project specific advise

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Note: Ensure steelwork is suitable for panels and is within tolerance
Min. bearing face for vertical joint steelwork is 140mm
Min. bearing face for intermediate support is 60mm



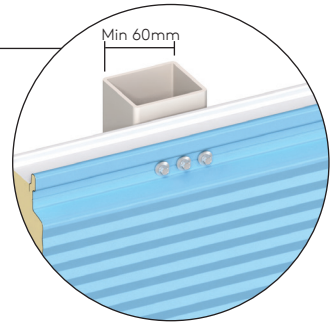
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Note: Installations may require additional fasteners depending on wind loadings specification. Check project specific details.

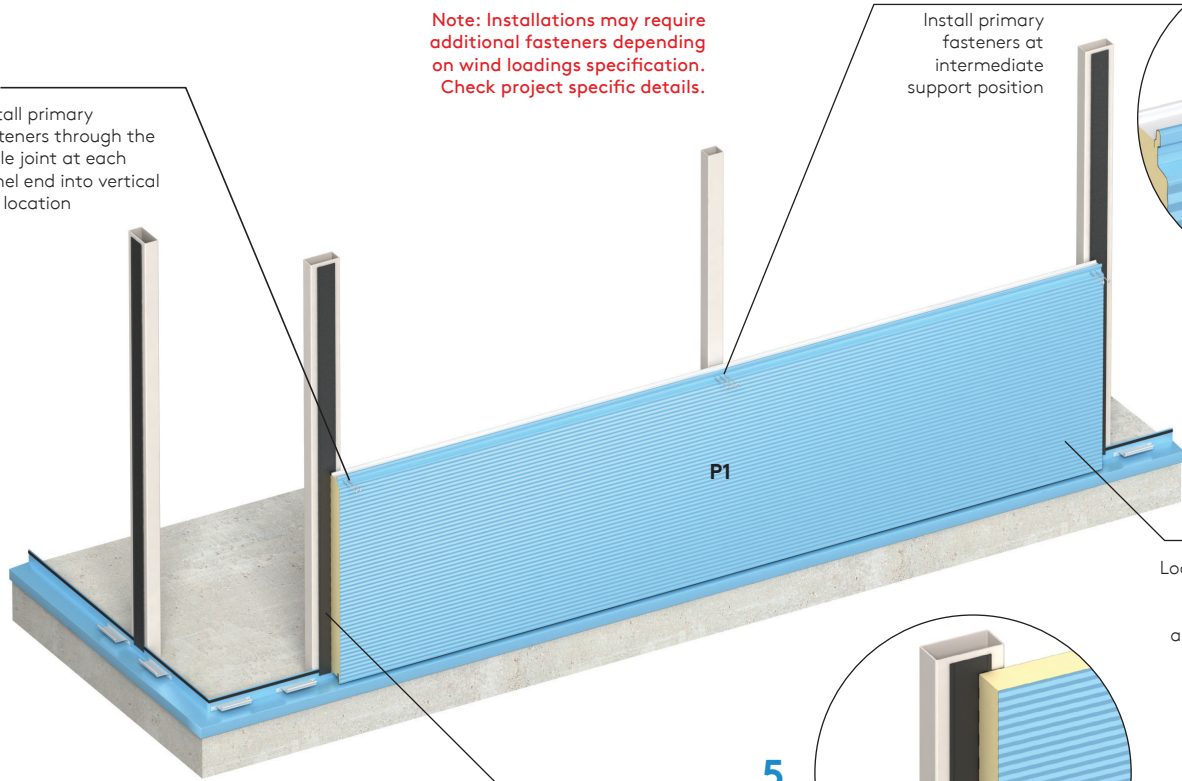
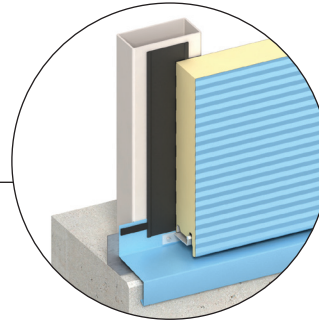
7
Install primary fasteners through the male joint at each panel end into vertical rail location

8
Install primary fasteners at intermediate support position



6
Locate first panel (**P1**) on panel bearers ensuring panel is evenly spaced and correctly positioned between vertical joint centres

5
A VJ2 EPDM bubble gasket is required at each vertical panel joint to provide an air seal. Apply gasket to the vertical steel member, ensure that it overlaps the vertical leg of the drip flashing. Ensure the vertical steel face is continuous, cover flashings required where gap is greater than 20mm

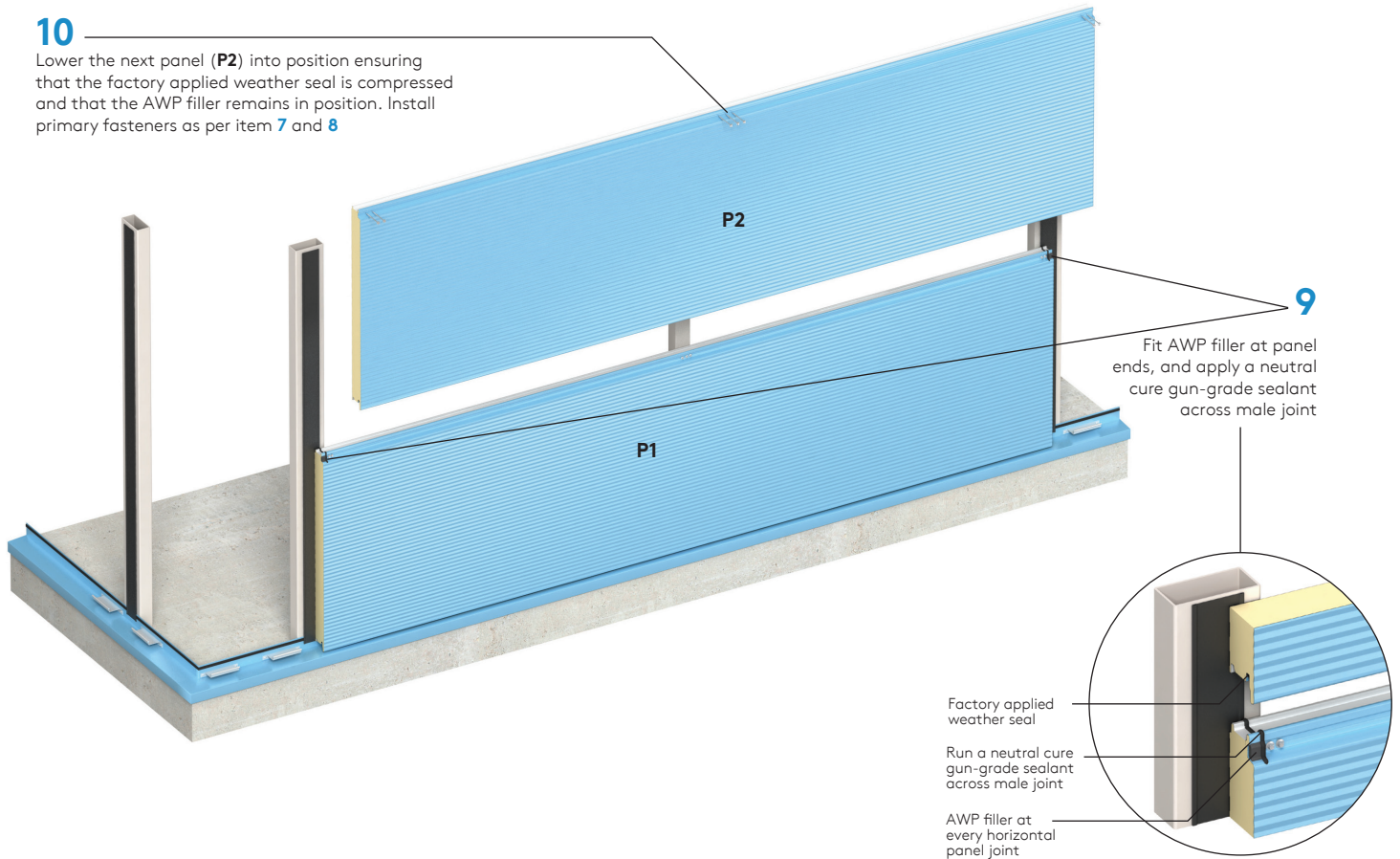


Architectural Wall Panel

Horizontally Laid

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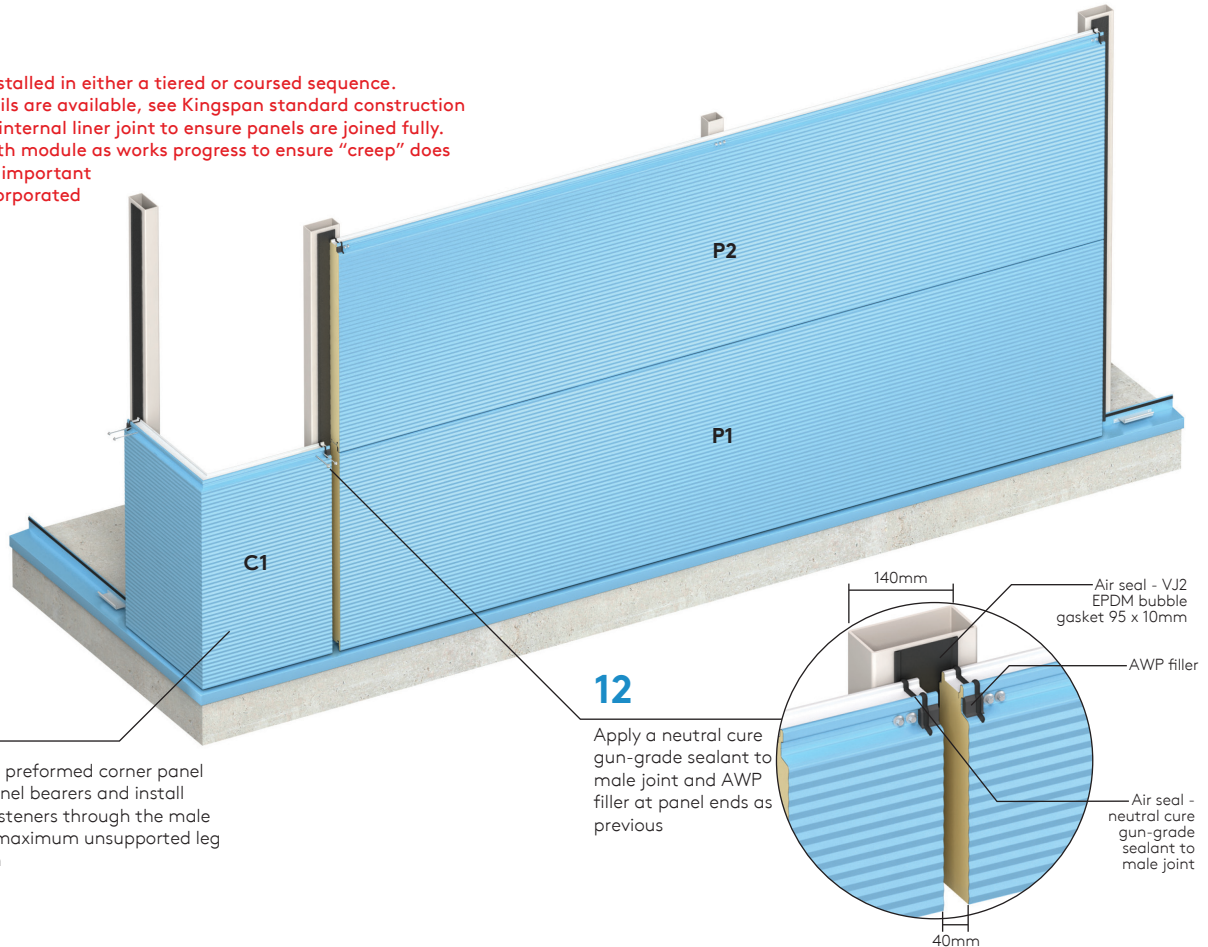
Lower the next panel (**P2**) into position ensuring that the factory applied weather seal is compressed and that the AWP filler remains in position. Install primary fasteners as per item **7** and **8**



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Note: Panels can be installed in either a tiered or coursed sequence.
A number of base details are available, see Kingspan standard construction details. Visually check internal liner joint to ensure panels are joined fully. Check panel cover width module as works progress to ensure "creep" does not occur, particularly important when windows are incorporated into the elevation



Architectural Wall Panel

Horizontally Laid

14

The gap between the panel ends is to be filled with PIR insulation board to a depth to suit the top hat section, ensure that continuity of insulation is achieved by filling any gaps with canister applied fire-rated canister foam

Note: There are several types of vertical joint options. This guide assumes that a standard steel top hat with flush insert detail is being used.

15

Prior to installation of the top hat apply neutral cure gun-grade sealant to horizontal panel joint at panel ends, in line with AWP filler to prevent wind driven rain ingress

Neutral cure gun-grade sealant

13

Lower the preformed corner panel (C2) into position ensuring that the factory applied weather seal is compressed and that the AWP filler remains in position. Install primary fasteners through the male joint

18

Incorporate a butt strap into the top hat joint, sealing with two runs of neutral cure gun-grade sealant

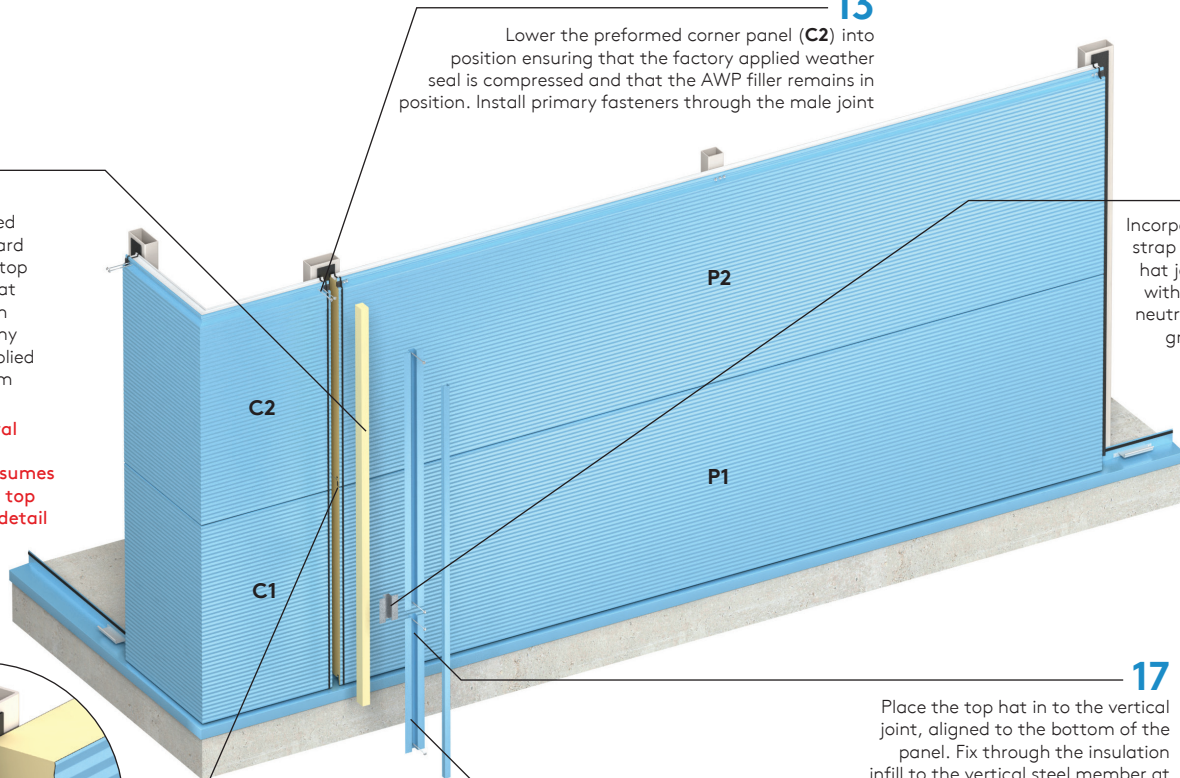
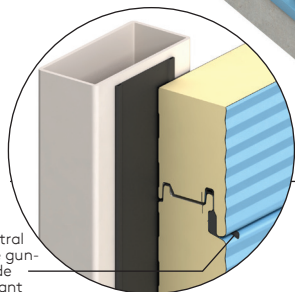
17

Place the top hat in to the vertical joint, aligned to the bottom of the panel. Fix through the insulation infill to the vertical steel member at max. 500mm centres, ensuring top hat is pulled tightly against panel to ensure effective weather seal. Care must be taken not to overdrive

16

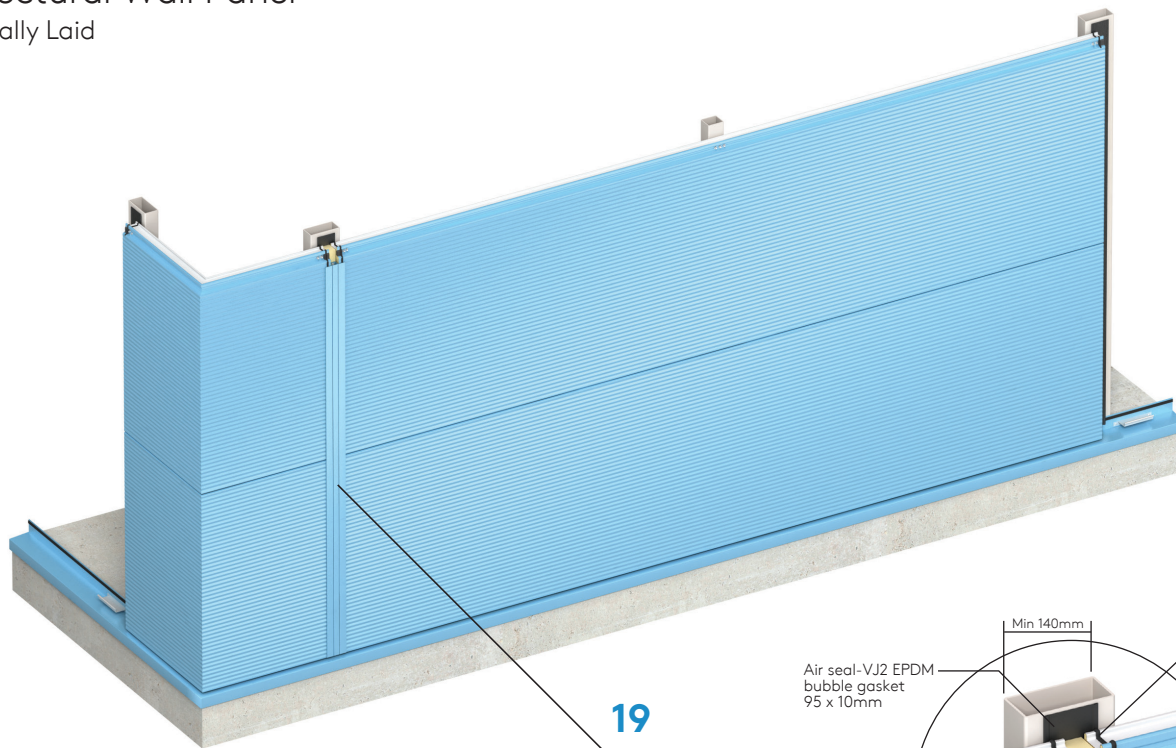
Apply 6x4mm butyl sealant to internal legs of top hat (or to panel)

Note: When using WV (Wave) profile, use 9 x 6mm PVC foam tape



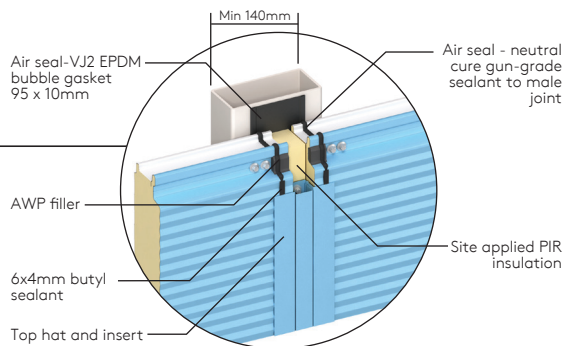
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19

Push top hat insert
into position



Panel Handling

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

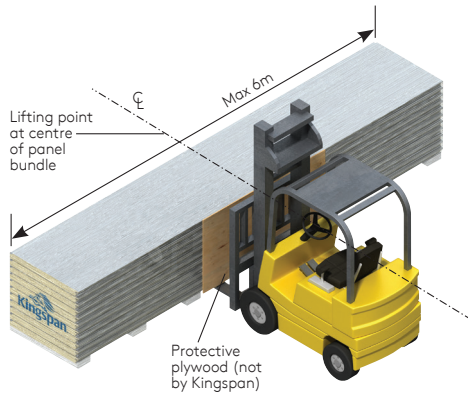
Individual panels should always be lifted from a pack and not dragged over others.

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

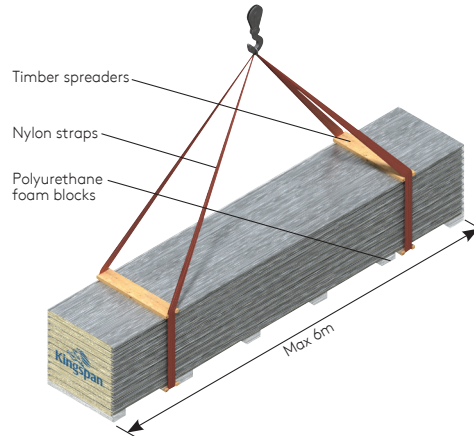
For larger panels the contractor would normally arrange to use appropriate material installation equipment to help lift the panels into position.

Protecting Film

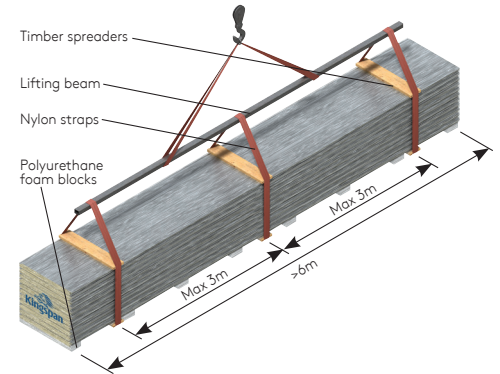
When panels are supplied with a plastic protective film this should be removed during site installation.



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.



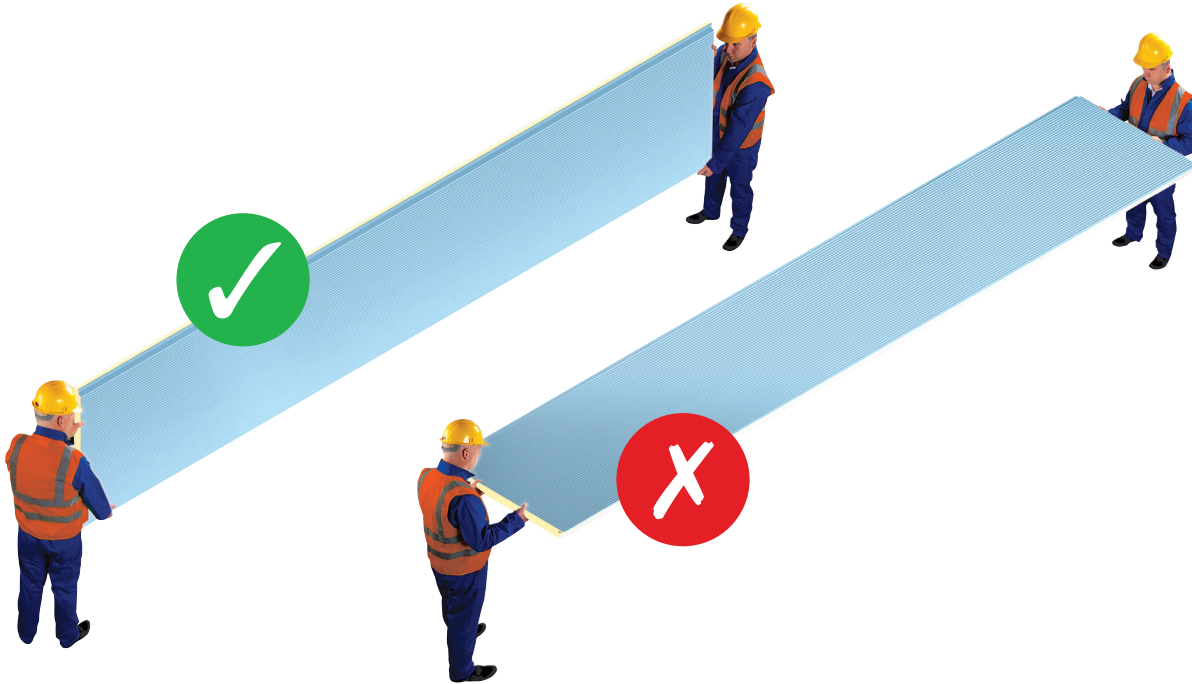
The recommended lifting method for bundles more than 6m, by crane, is by using three points of support. To prevent damage from nylon straps, use timber spreaders at top and bottom at lifting locations as shown.

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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