

Insulated Roof & Wall Panels
Australia & New Zealand

Protected by



Architectural Wall Panels (AWP)

KS1000

Installation Guide

Horizontally Laid



January 2020



Architectural Wall Panels KS1000 (AWP)

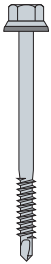
Horizontally Laid

Components

Architectural Wall Panel



Primary / Main fastener
(Carbon Steel)



Neutral cure
gun-grade
sealant



Gun-grade sealant type
- Selseys Permasil 626 or
equivalent

Fire-rated
canister
insulation



Top hat



Top hat
insert



PIR
insulation



Galvanised
drip support
angle



VJ2 EPDM
bubble gasket



Butt strap



AWP
filler



Panel
bearer



Drip flashing



Low profile
fastener



Butyl tape sealants



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

NZ Tel: +64 3-260 5530

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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 50mm. 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 to be calculated based on project spans and wind loads.

See specific details for high humidity applications.

Contact Kingspan Technical Services for project specific advice.

Contact Kingspan Technical Services for cyclone regions and areas of high localised suction



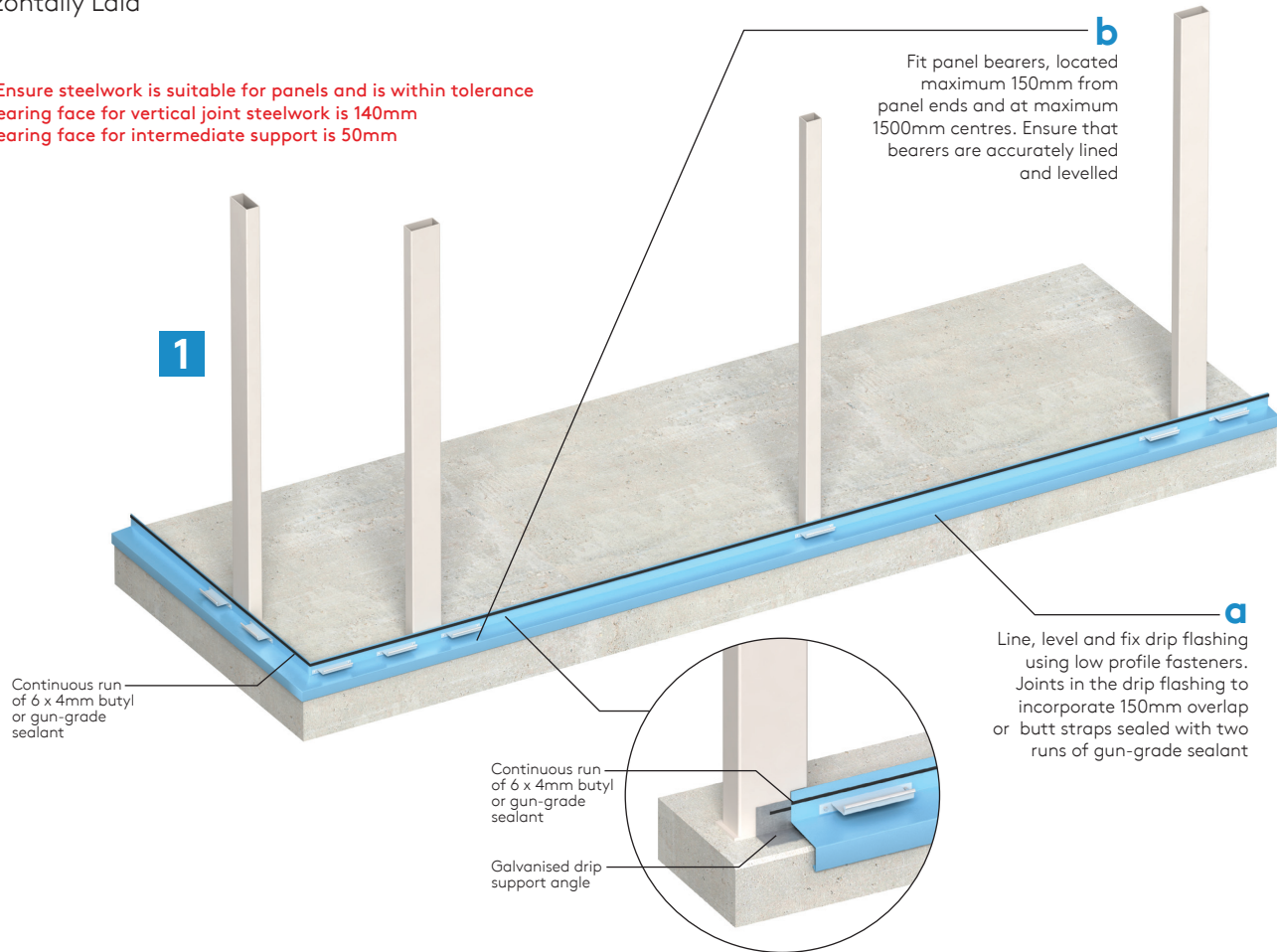
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Note: Ensure steelwork is suitable for panels and is within tolerance

Min. bearing face for vertical joint steelwork is 140mm

Min. bearing face for intermediate support is 50mm



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e

Install 1 No. main fasteners through the male joint at each panel end into vertical rail location

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

f

Install 2 No. main fasteners at intermediate support position (minimum)

Min 50mm

2

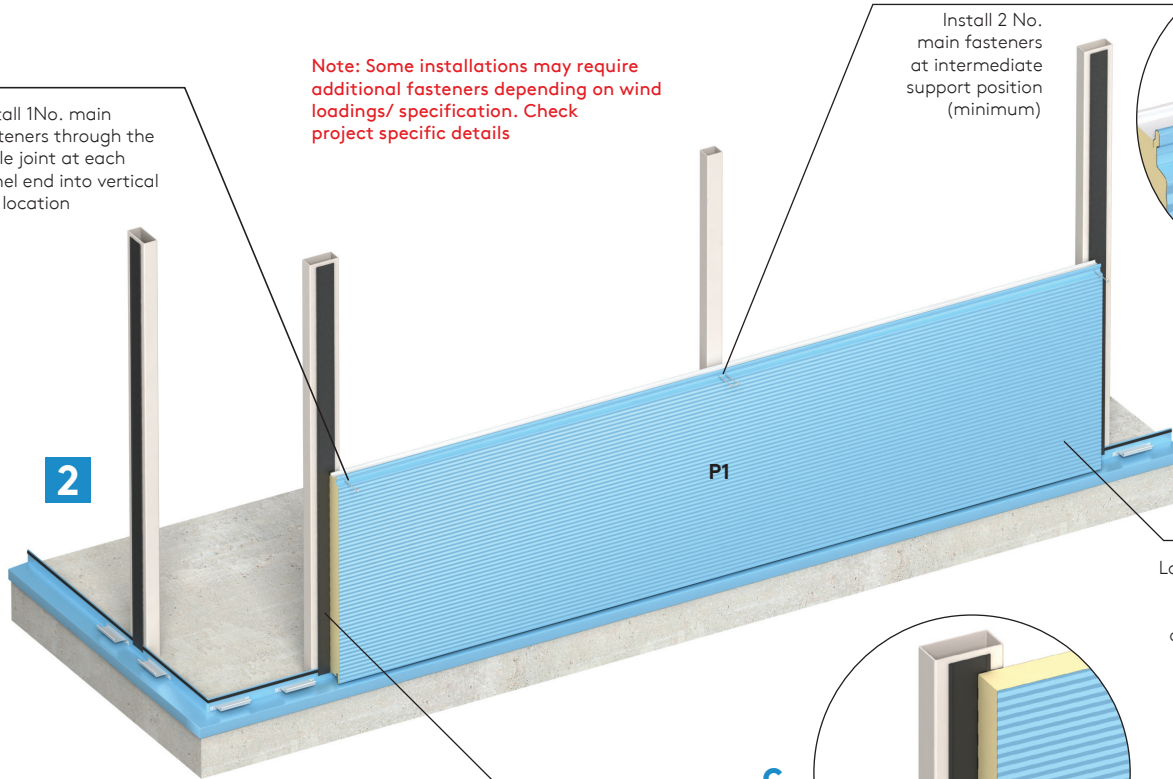
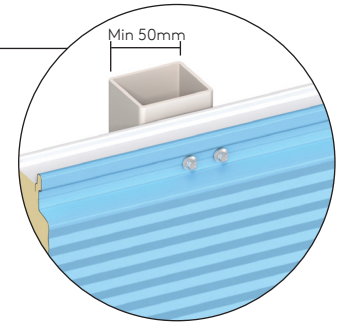
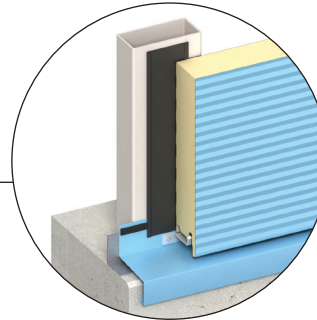
P1

d

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

c

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

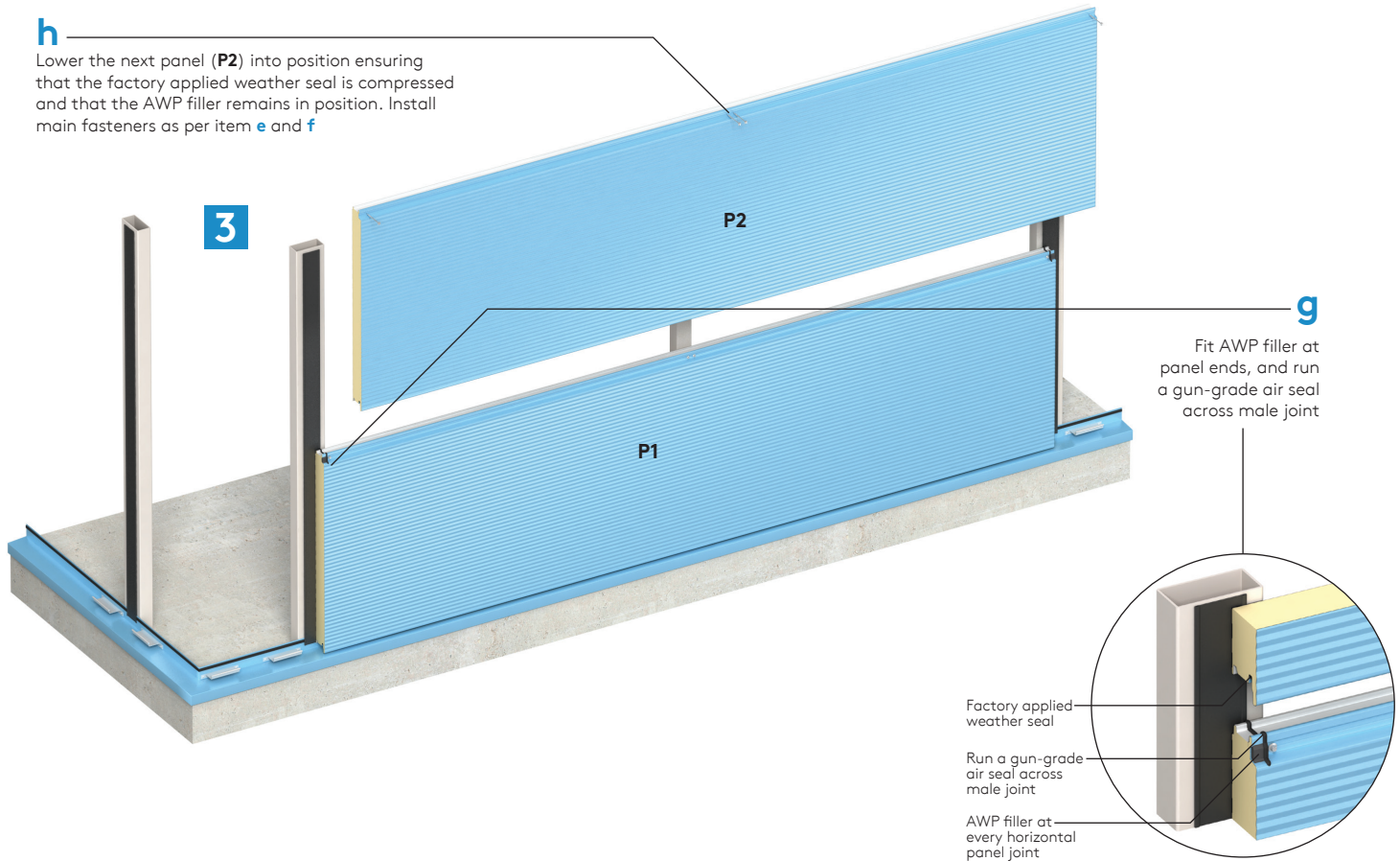


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h

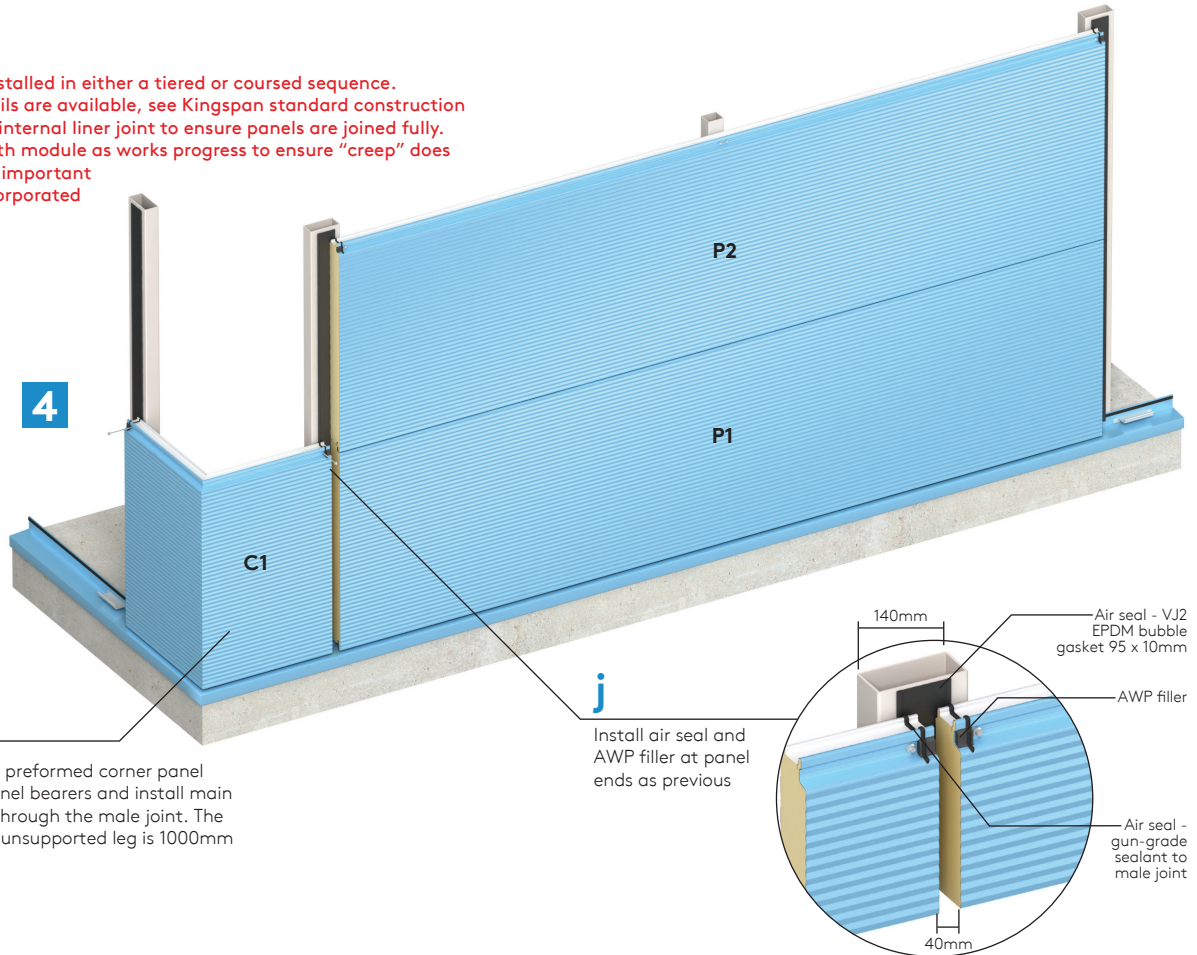
Lower the next panel (**P2**) into position ensuring that the factory applied weather seal is compressed and that the AWP filler remains in position. Install main fasteners as per item **e** and **f**



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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



4

C1

P2

P1

i

Locate the preformed corner panel (C1) on panel bearers and install main fasteners through the male joint. The maximum unsupported leg is 1000mm

j

Install air seal and AWP filler at panel ends as previous

140mm

Air seal - VJ2 EPDM bubble gasket 95 x 10mm

AWP filler

Air seal - gun-grade sealant to male joint

40mm

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l
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 fire rated canister applied insulation

k
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 main fasteners through the male joint

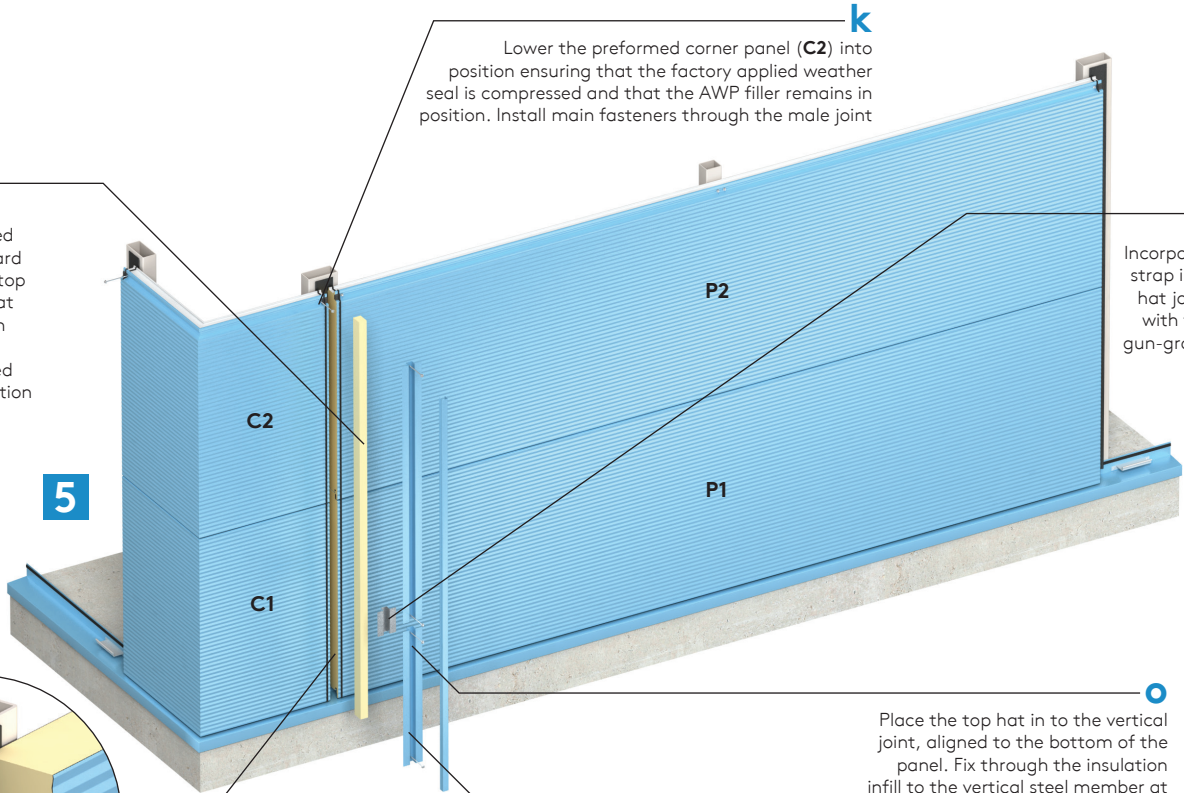
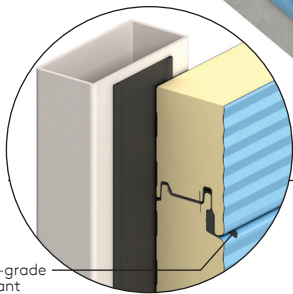
p
Incorporate a butt strap into the top hat joint, sealing with two runs of gun-grade sealant

o
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

n
Apply 6 x 4mm butyl sealant to internal legs of top hat (or to panel)
Note: When using WV (Wave) profile, use 9 x 6mm PVC foam tape

m
Prior to installation of the top hat apply gun-grade sealant to horizontal panel joint at panel ends, in line with AWP filler

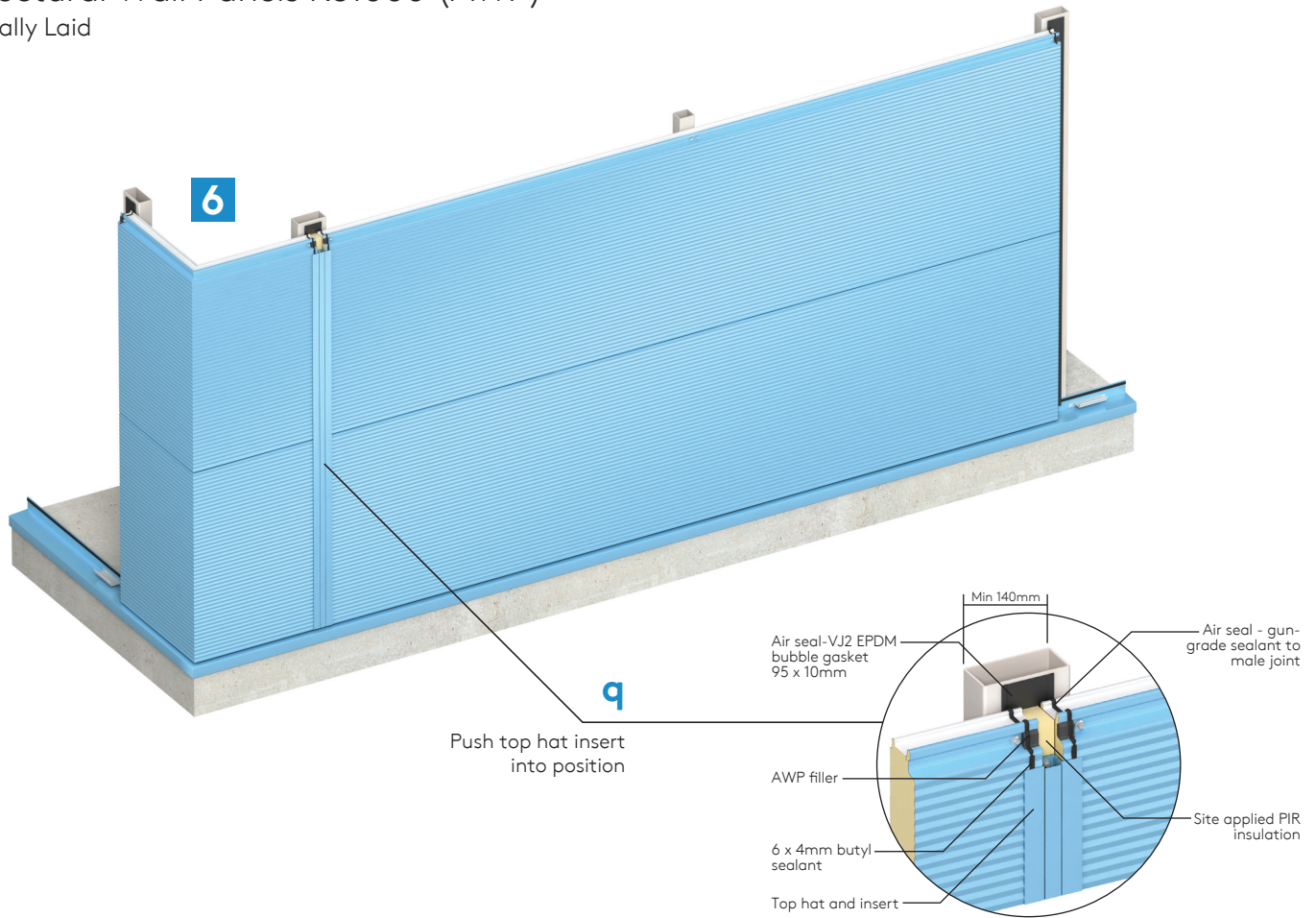
Gun-grade sealant



5

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Panel Handling

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

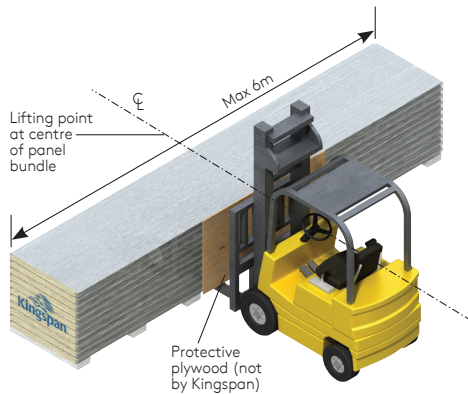
Individual panels should always be lifted from a pack and not dragged over others.

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

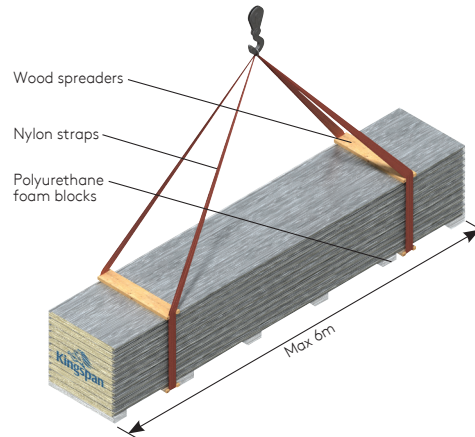
For larger panels the contractor would normally arrange to use appropriate material installation equipment to help lift the panels into position.

Protecting Film

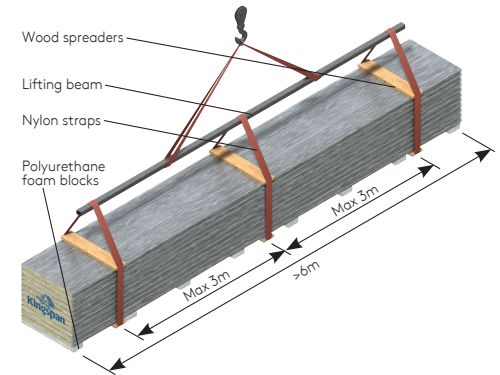
When panels are supplied with a plastic protective film this should be removed during site installation.



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.

