

Architectural Wall Panel

Installation Guide

Horizontally Laid



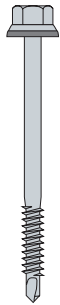
Architectural Wall Panel - Horizontally Laid

Components

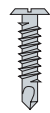
Architectural Wall Panel



Primary fastener with washer
(Carbon Steel with minimum 16mm washer type 4)
NOT BY KINGSPAN



Low profile fastener or rivet
(Carbon Steel)
NOT BY KINGSPAN



VJ2 EPDM bubble gasket
(Code VJ2)



Panel bearer
(Code: PB50/80/100)



Butt strap
(Code: AWPBS)



Base channel
(Code: BC50/80/100/140/200)



AWP filler
(Code: 3FILL)



Top hat
(Code: TOPHATA)



Top hat insert
(Code: TOPHATINF)



Butyl tape sealant
(Code: SEXT)



6x4mm

Gun-grade sealant
NOT BY KINGSPAN
Butyl Mastic or neutral cure silicone



Canister applied fire-rated PU foam
NOT BY KINGSPAN



This installation guide should be read in conjunction with the 'project specific' design drawings and Kingspan standard details.

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 and Wall Systems.

Architectural Wall Panel - Horizontally Laid

Notes

This is a generic Architectural Wall Panel installation guide. Details may differ from project to project. Project specific construction details must be used unless those details are contrary to the principles of the Kingspan details; in which case specific instruction should be sought.

Sequence

The panels are laid horizontally from base to top. The panels can not be back-laid.

Support Structure

Ensure steelwork is suitably plumb, level and within tolerance before starting the installation of the panels. If the panels have vertical joints (top hats) then check the bearing width, location and straightness of the structural support at that location.

The minimum bearing face for intermediate supports is 60mm. The minimum bearing width at panel end is 140mm, refer to Kingspan details. The bearing needs to be wide enough to accommodate the number of fixings required.

The support must provide a full bearing surface for the panel

Install

We recommend the use of mechanical handling systems for the movement & lifting of panels into position.

When practical, cut panels on ground prior to installation. Clean any swarf from the panel immediately

The protective film is to be removed from the external weather face of panel & internal liner before to installation.

Gun-grade sealant is butyl sealant for air seals and neutral cure silicone for weather seals.

Fixings

The number of fasteners must be calculated based on spans, wind loads and fastener capacity.

All fasteners to be minimum Class 4 Carbon steel with coloured heads (if visible), refer to the specification. Check that the fixing thread and drill tip is correct for connection to the structure.

Install fasteners with the recommended screw gun speed selection. Use correct socket and drive, including depth-locating nose piece to prevent over driving. Refer to the fastener manufacturer's recommendations.

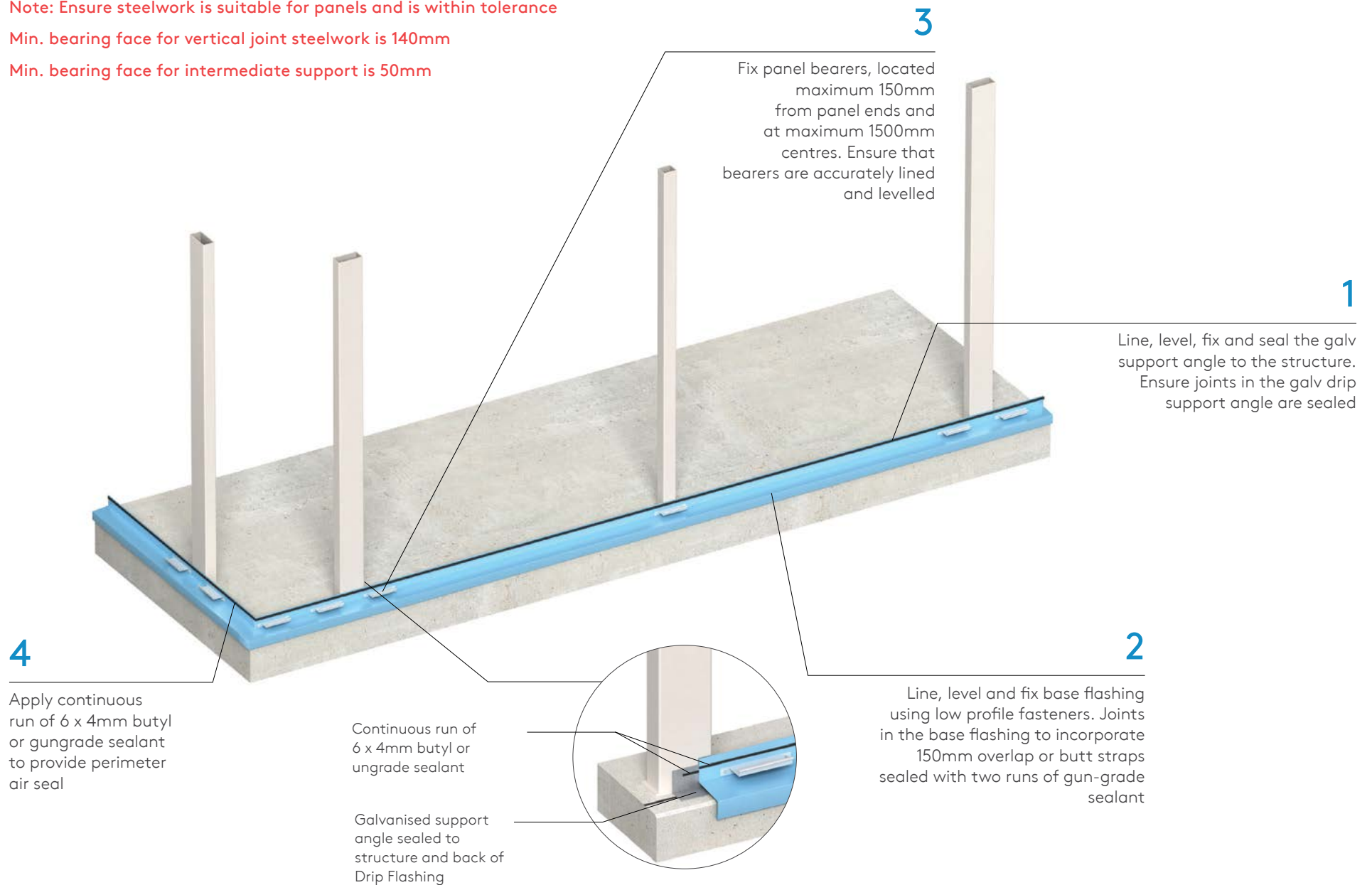
Contact Kingspan Technical Services for project specific advice on High Humidity buildings and cyclonic regions.

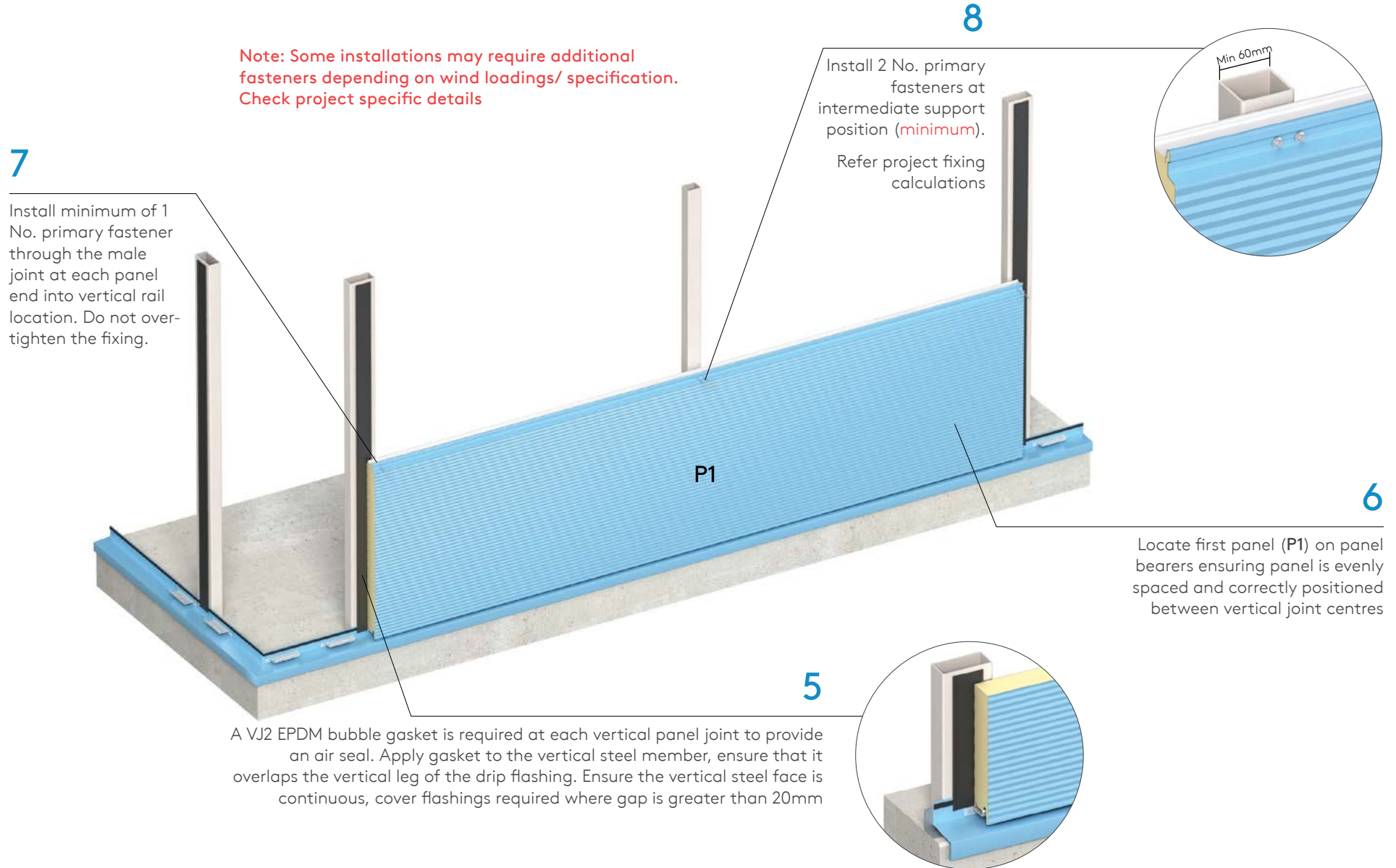


Note: Ensure steelwork is suitable for panels and is within tolerance

Min. bearing face for vertical joint steelwork is 140mm

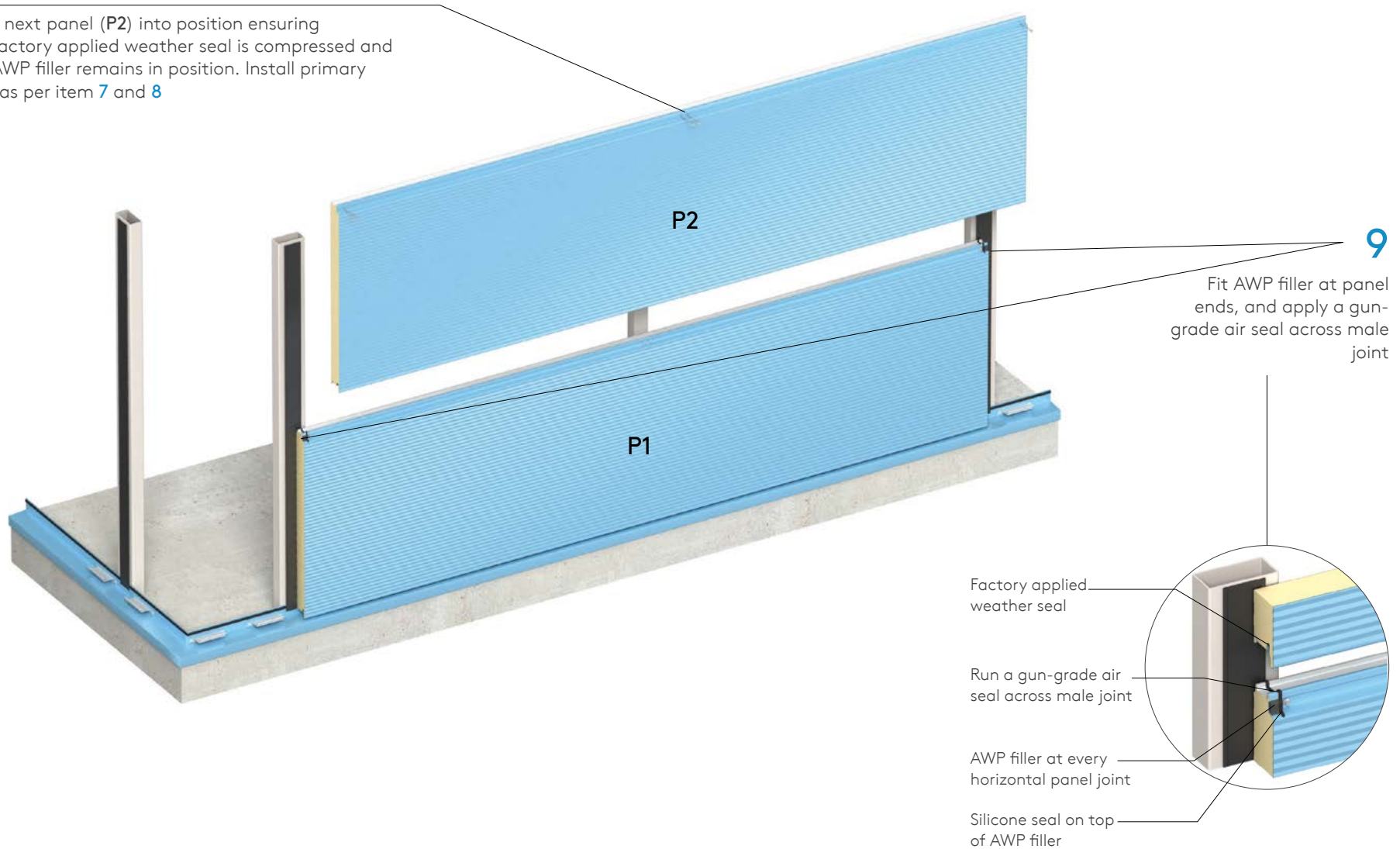
Min. bearing face for intermediate support is 50mm



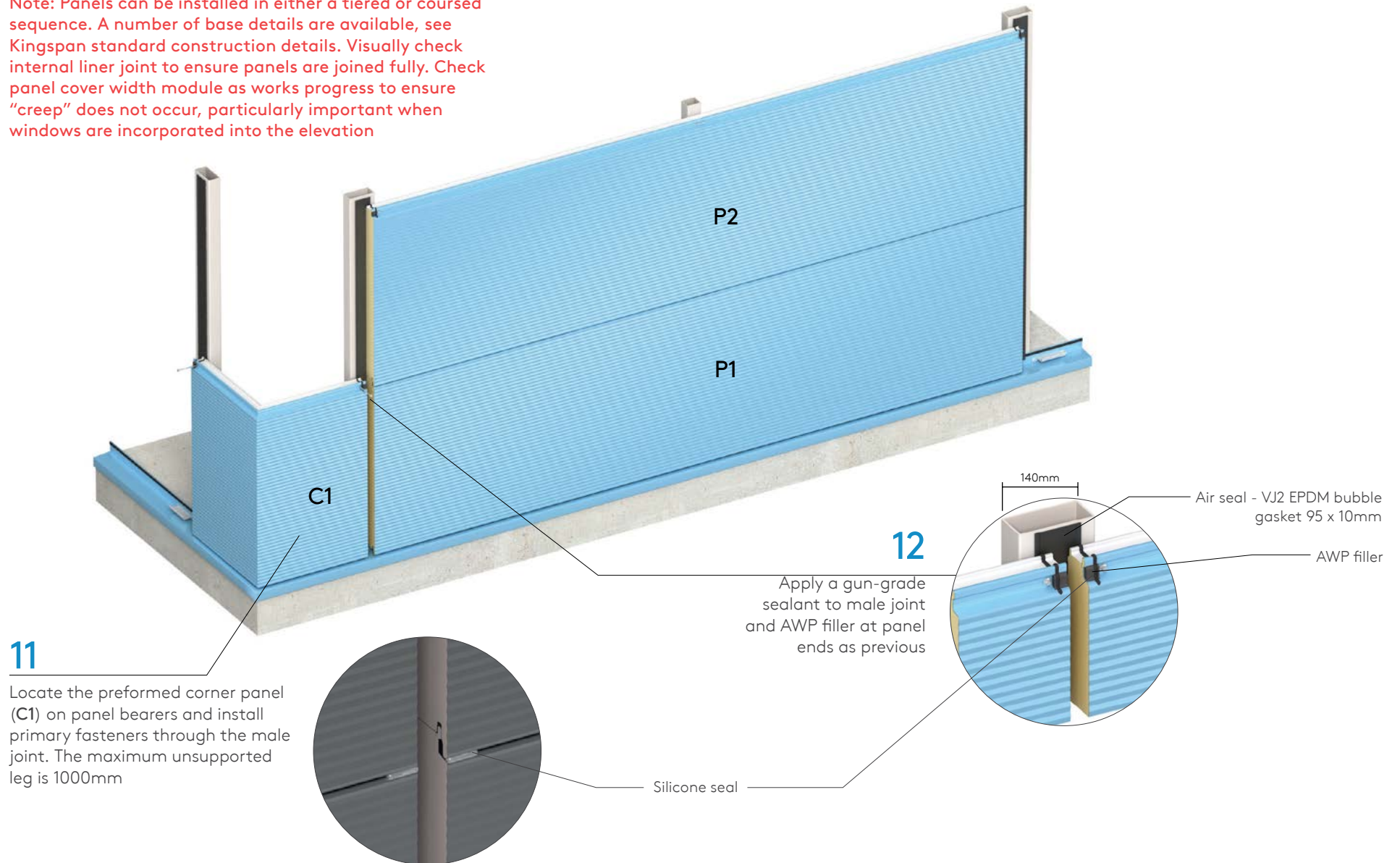


10

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



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



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-rates PU foam

15

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-rates PU foam

Silicone sealant

16

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

13

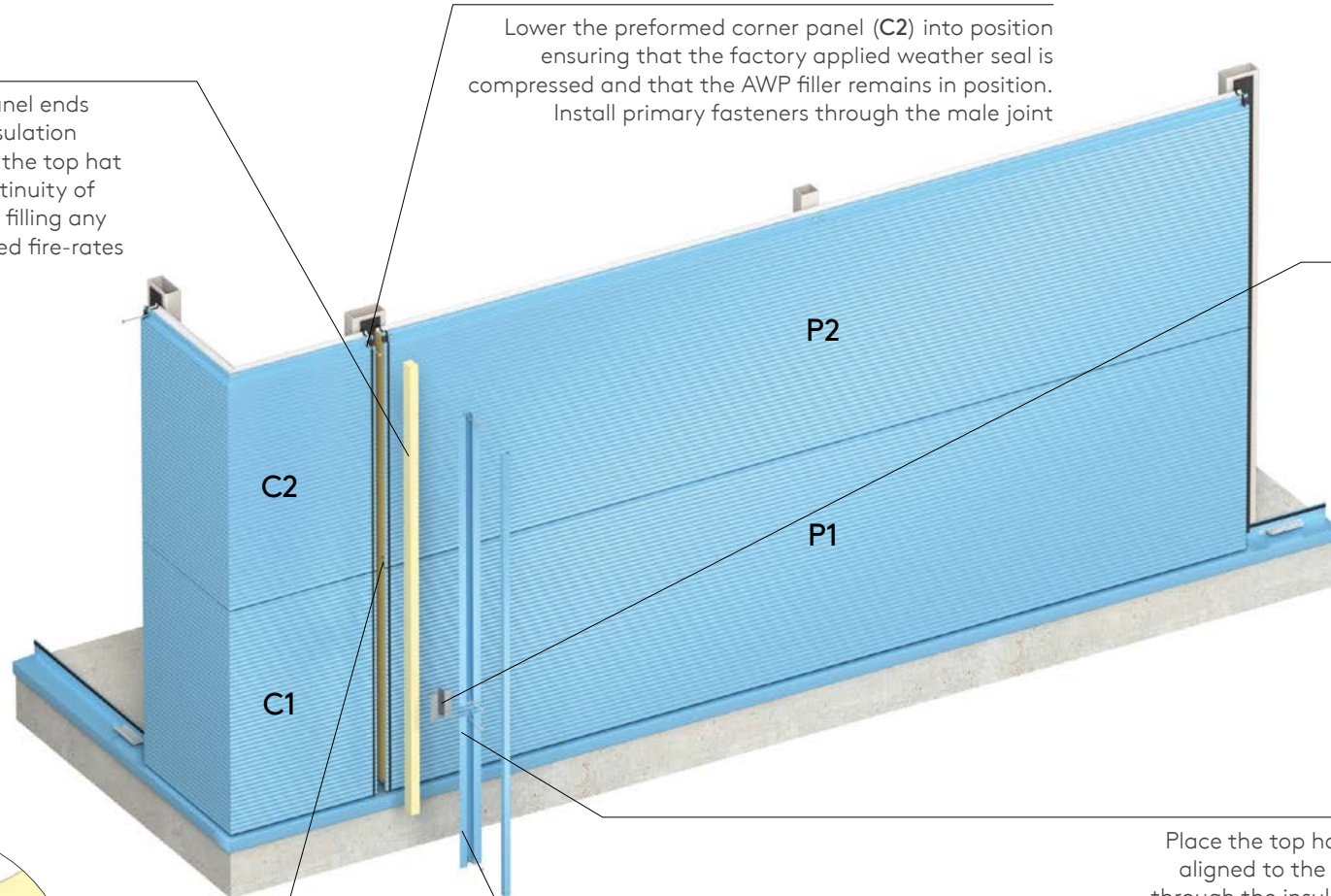
Lower the preformed corner panel (C2) into position ensuring that the factory applied weather seal is compressed and that the AWP filler remains in position. Install primary fasteners through the male joint

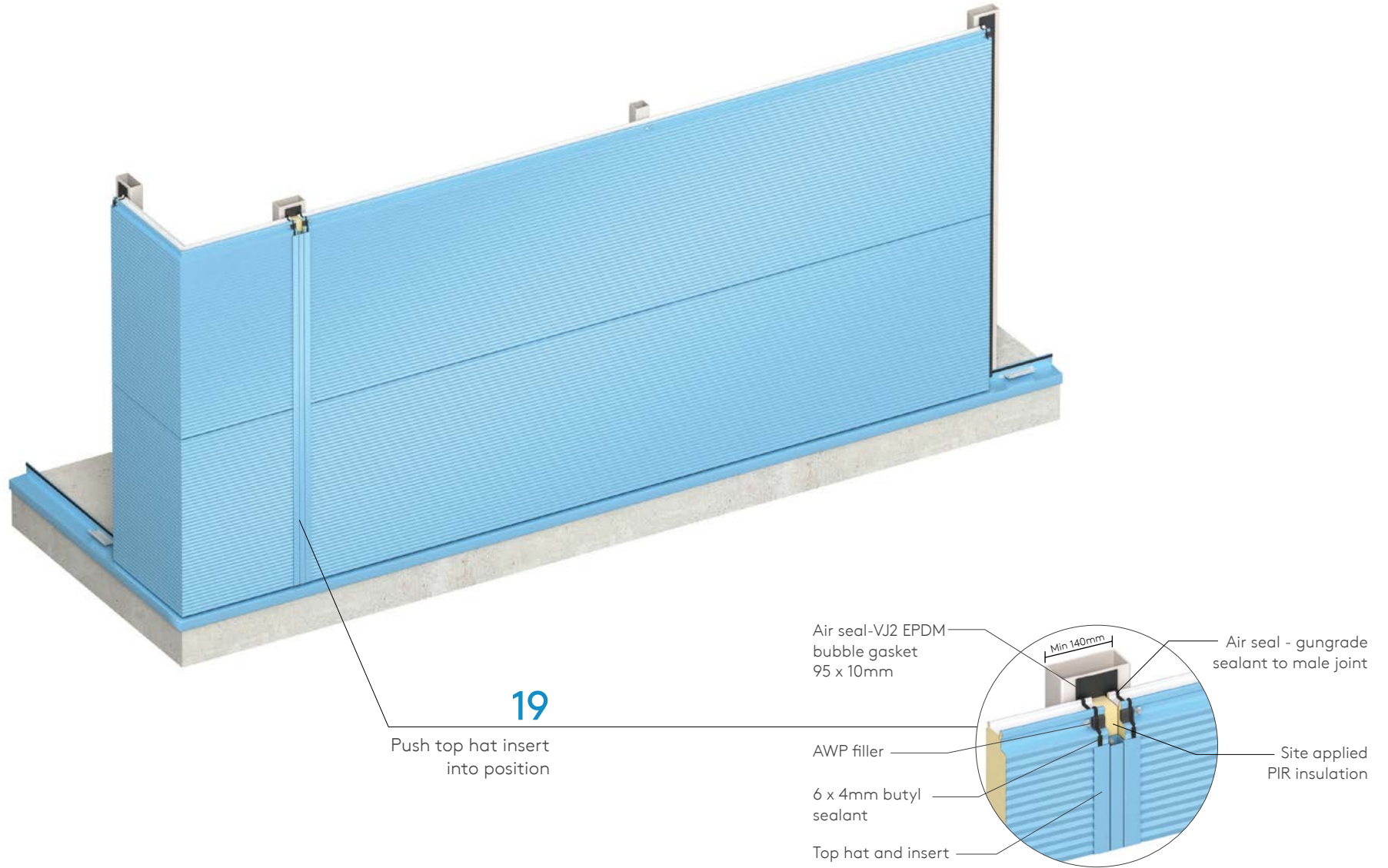
18

Incorporate a butt strap into the top hat joint, sealing with two runs of 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 against panel to ensure effective weather seal. Care must be taken not to overdrive





Architectural Wall Panel - Horizontally Laid

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.

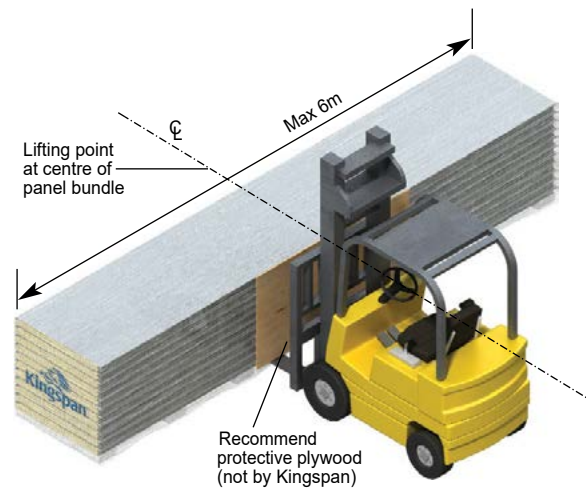
The weight of individual panels for lifting can be determined from the information on the packing slip.

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

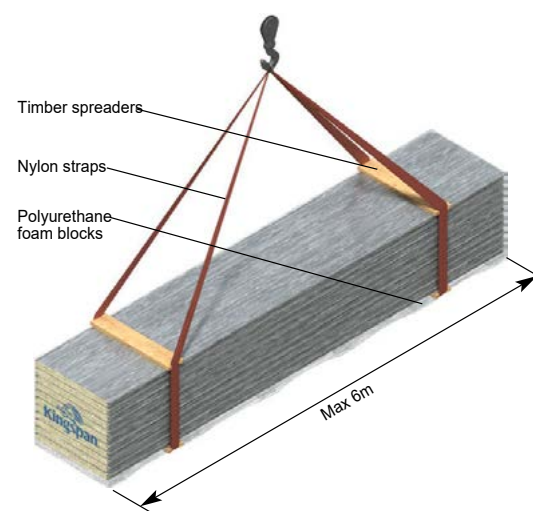
Lift only one bundle at a time. Do not stack more than two bundles high

Protecting Film

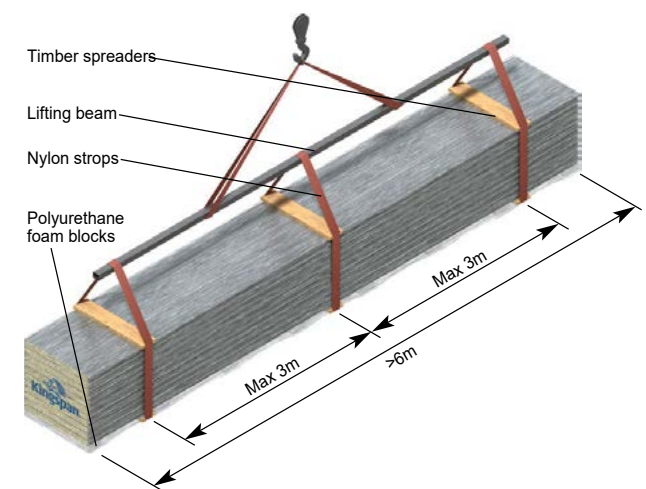
When panels are supplied with a plastic protective film this should be removed prior to site installation.



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 more than or equal to 6m can be handled with a forklift spreader or 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 wood spreaders at top and bottom at lifting locations as shown.

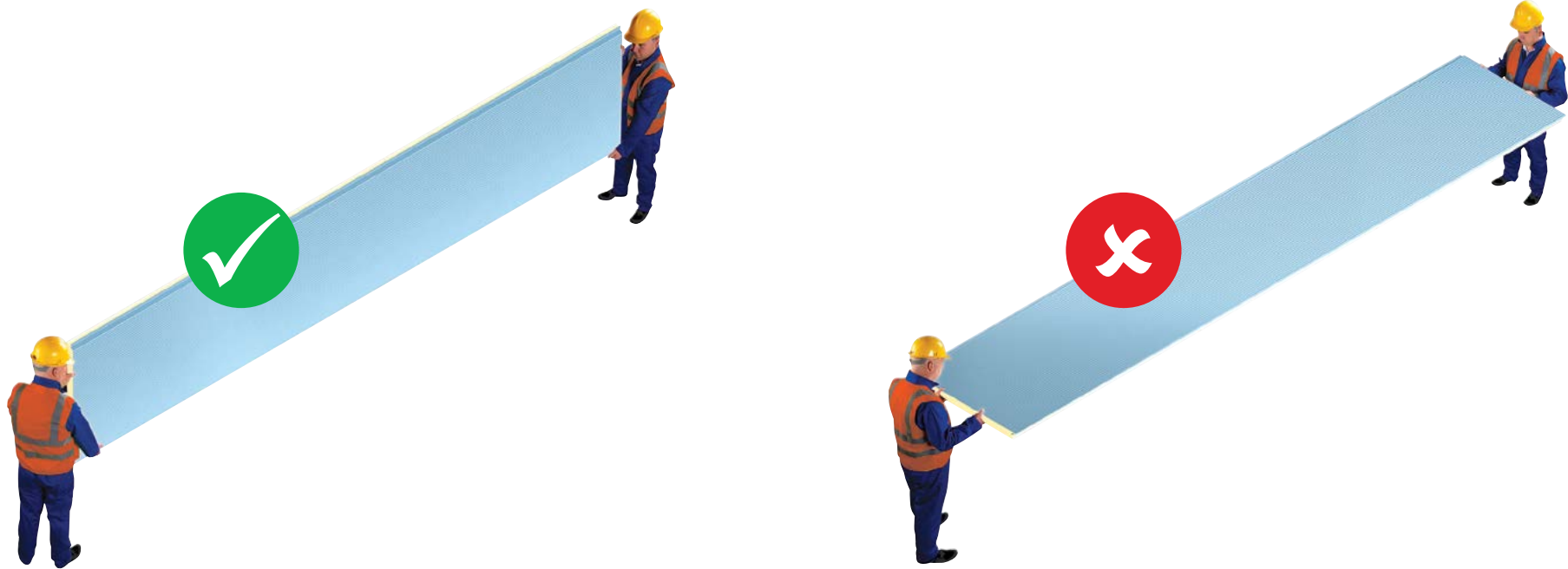
For illustration purposes only

Architectural Wall Panel - Horizontally Laid

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.



Contact Details

New Zealand

Kingspan Limited

97 Montreal Street | Christchurch 8023

T: 0800 12 12 80 or +64 (0) 3 260 5530

E: info@kingspanpanels.co.nz

www.kingspanpanels.co.nz

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

Care has been taken to ensure that the contents of this publication are accurate, but Kingspan Limited and its subsidiary companies do not accept responsibility for errors or for information that is found to be misleading. Suggestions for, or description of, the end use or application of products or methods of working are for information only and Kingspan Limited and its subsidiaries accept no liability in respect thereof.

To ensure you are viewing the most recent and accurate product information, please visit: <https://www.kingspan.com/content/dam/kingspan/kip-west/wall-panels/awp-wall-panel/kingspan-architectural-wall-panel-installation-guide-horizontal-en-nz.pdf>

© Kingspan and the Lion Device are Registered Trademarks of the Kingspan Group plc in the UK, Ireland and other countries. All rights reserved.

