

Insulated Roof & Wall Panels  
UK & Republic of Ireland

# QuadCore® Topdek Roof Panel Installation Guide



Protected by



# QuadCore® Topdek Roof Panel

## Insulated Single Ply Roofdeck

### Components

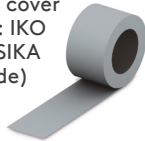
#### QuadCore® Topdek Roof Panel



Premiseal: VHTO13  
Multibond: 514cw  
50mm wide acrylic  
double sided tape



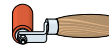
1.5mm PVC  
membrane cover  
strip. (min: IKO  
150mm or SIKA  
200mm wide)



TRIAC S  
hot air tool



40mm wide  
silicone  
pressure roller



40mm nozzle  
for lap welding



20mm nozzle for  
lap welding and  
intricate detailing



Hot air welder



Penny  
pressure  
roller



Wire brush



PVC foam tape  
(SGV15P 20x9  
PVC)



SFS drive  
bar



Ejot drive  
bar



SFS  
fastener



Ejot  
fastener



Non-setting  
gun-grade  
butyl sealant



B1 Fire rated  
canister  
foam



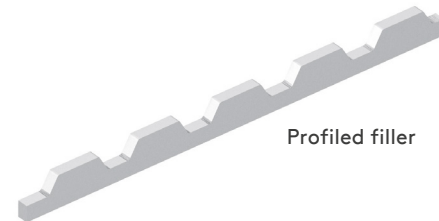
Seam probe



10" scissors



Profiled filler



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

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### Note:

This installation guide provides generic guidance on installation methods however should be read in conjunction with project specific specifications and construction details. For further information please contact our Tech-eXchange team.

Only fully trained and certified operatives should install QuadCore® Topdek Roof Panel and heat weld the relevant membrane.

Ensure steel work is suitable for panels and is within tolerance.

Ensure the lower panel 60mm cutback is bearing on to upper purlin by a minimum of 60mm.

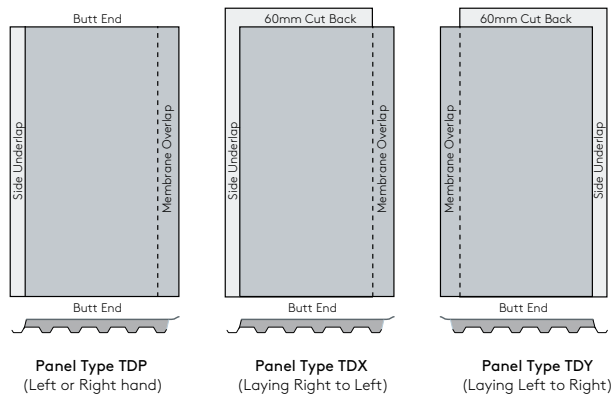
Gun-grade sealant type - non-setting butyl rubber sealant is recommended.

Panel sequence installed in tiers not coursed.

Profiled fillers required at eaves, panel butt joint and ridge.

This product cannot be used in high humidity or hygiene internal environments.

PVC membrane options are: IKO Armourplan or Sika Plan.



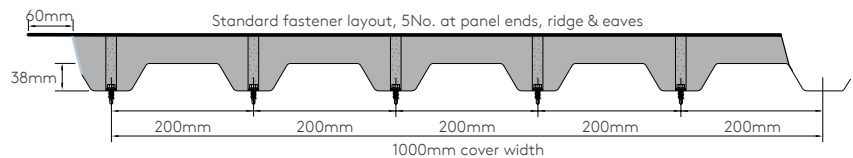
QuadCore® Topdek Roof Panel can be used on building applications with a minimum finished roof pitch after deflection of 1:80 (0.72°) to avoid ponding. It is also suitable for curved roof applications with a convex curve (45m radius) and concave curve (50m radius).

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 & NFRC Guidance Note GN01 recommendations.

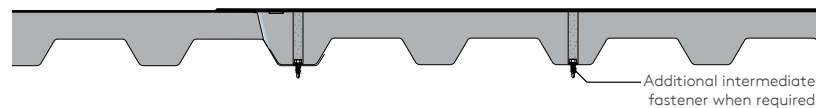
Clean swarf off panels immediately when created.

For many years sealant suppliers have advised caution when using sealants in temperatures less than +5°C. Protective film to be removed from external weather face of panel & internal liner, where applicable, prior to installation.

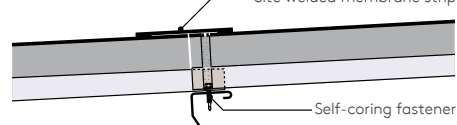
### Fastener Layout



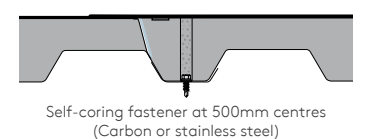
### Standard Fastener Layout for Intermediate Panels



### End Laps



### Side Laps

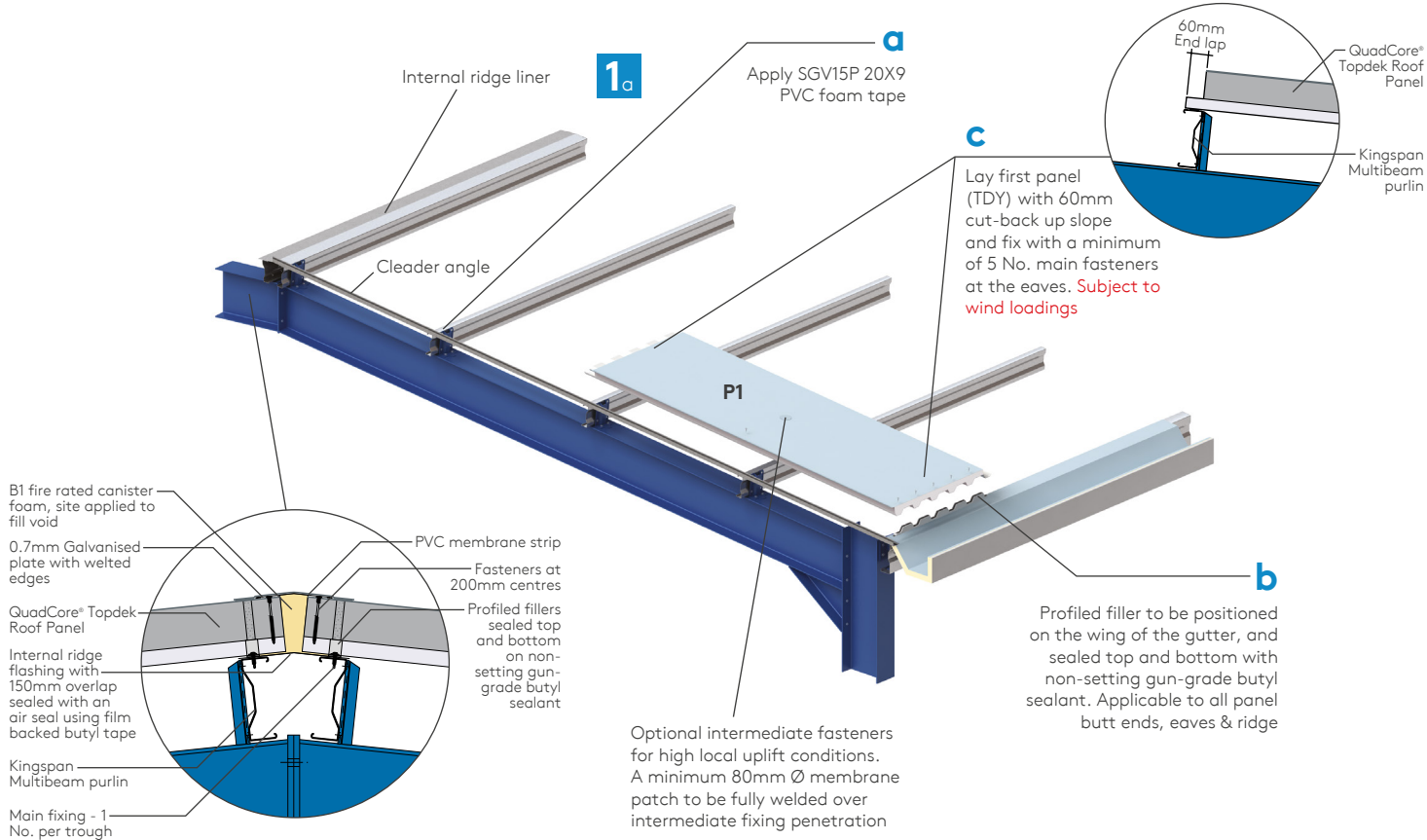


Note: Good practice would recommend that a wind load calculation be carried out for each project, to determine whether additional fasteners are required to meet local wind uplift requirements. We recommend the use of mechanical handling systems for the movement & lifting of panels into position.

The fixing pattern shown is the minimum requirement only based on air and weather testing. For fixing patterns for LPCB certification or FM approval as well as project specific wind loading guidance, please contact Kingspan Insulated Panels Technical department (0800 587 0090).

# QuadCore® Topdek Roof Panel

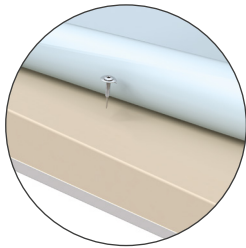
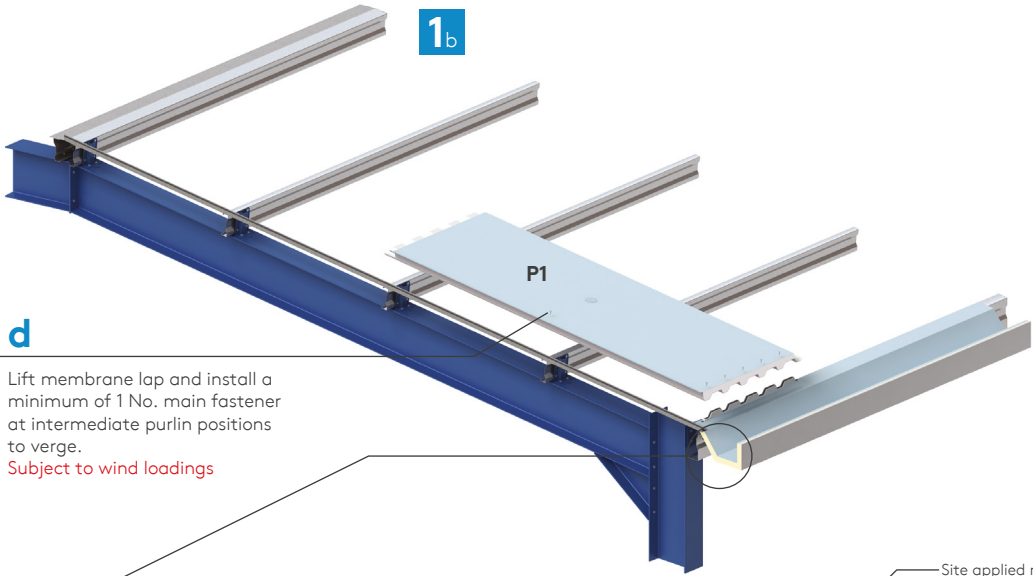
## Insulated Single Ply Roofdeck



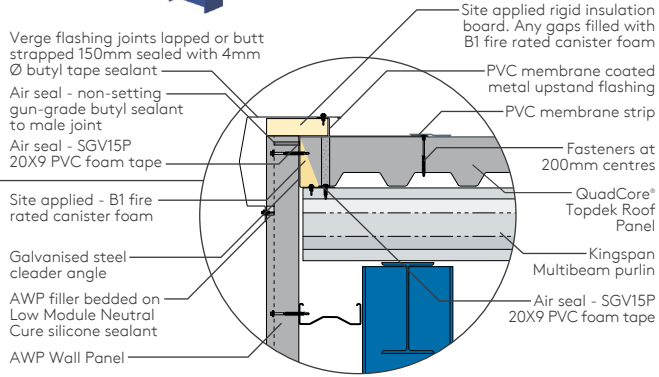
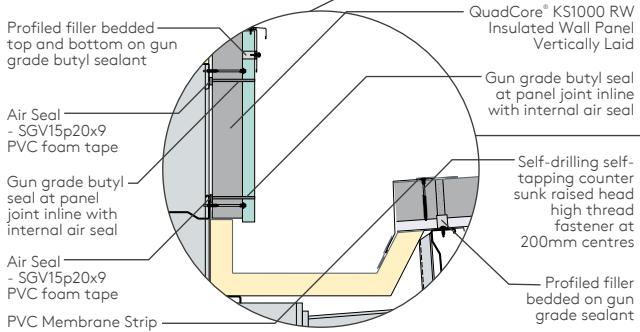
# QuadCore® Topdek Roof Panel

## Insulated Single Ply Roofdeck

1b

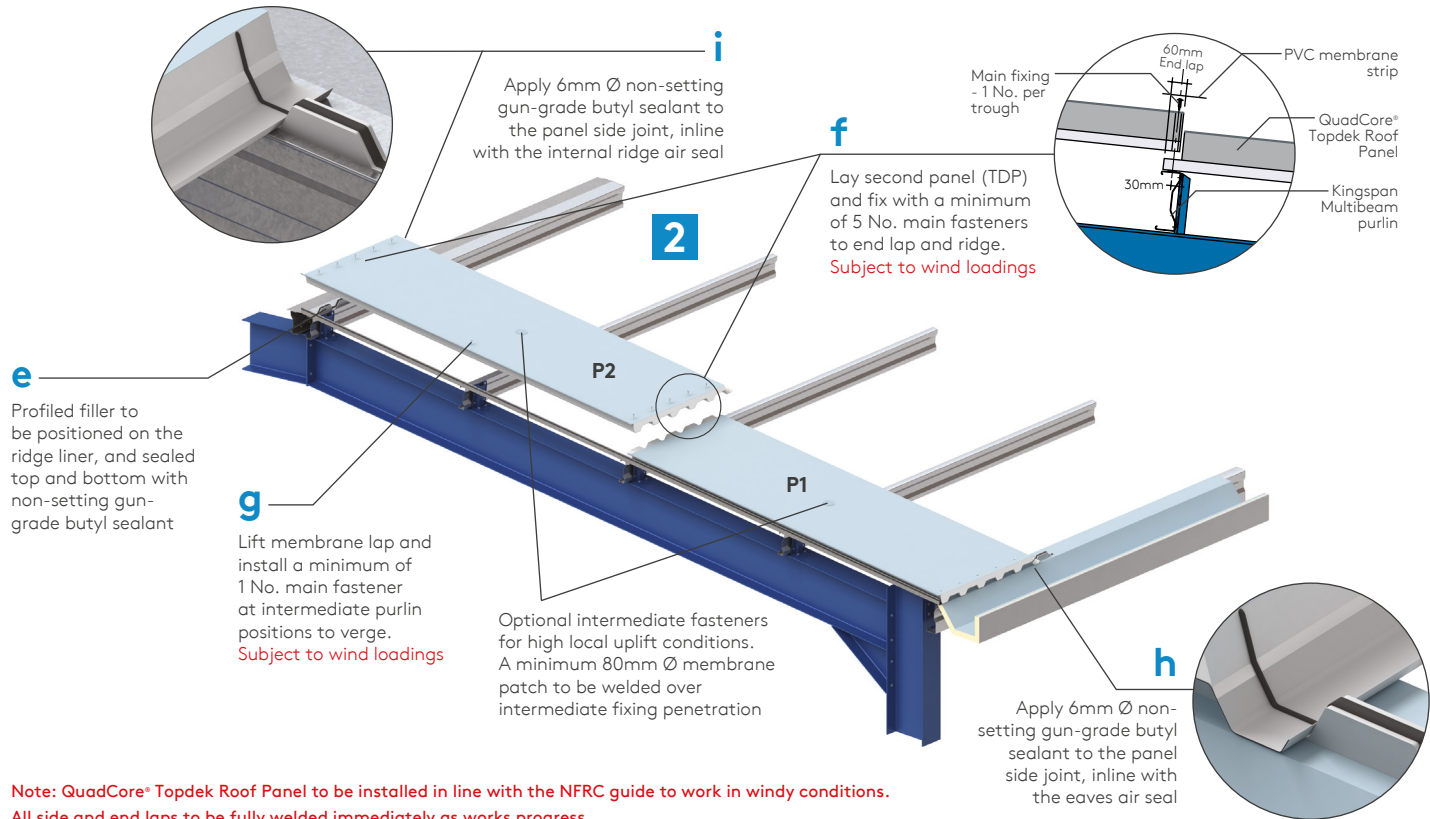


**d** Lift membrane lap and install a minimum of 1 No. main fastener at intermediate purlin positions to verge.  
 Subject to wind loadings



# QuadCore® Topdek Roof Panel

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**Note: QuadCore® Topdek Roof Panel to be installed in line with the NFRC guide to work in windy conditions.**

**All side and end laps to be fully welded immediately as works progress.**

**Kingspan recommend works are planned to ensure that areas of QuadCore® Topdek Roof Panel are only installed when they can be fully completed the same day. QuadCore® Topdek Roof Panel areas should be inspected during and at the end of the working day to make sure that loose membrane lap materials are not left unsecured to prevent wind damage.**

**Membrane lap strip to overlap a minimum of 50mm past all fasteners to enable 40mm nominal weld width**

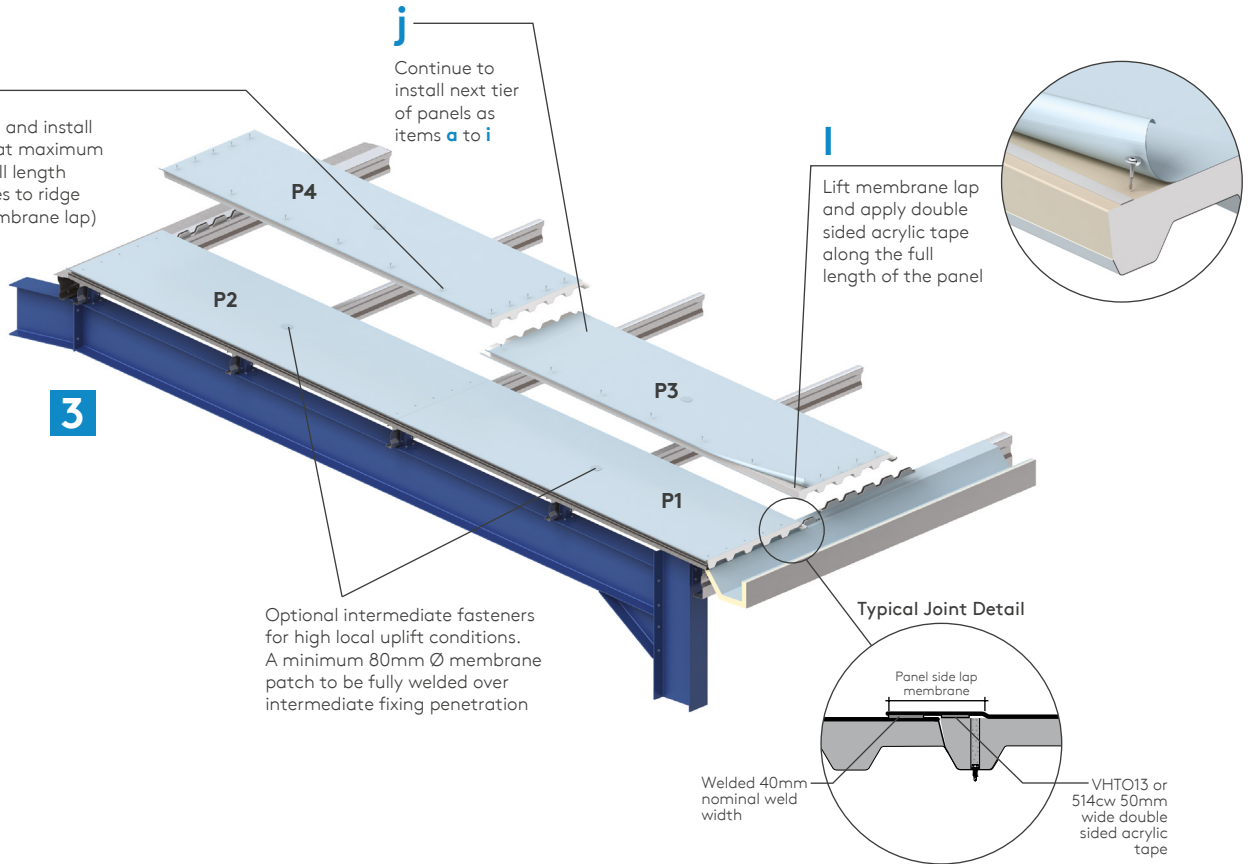
# QuadCore® Topdek Roof Panel

## Insulated Single Ply Roofdeck

**k**  
Lift membrane lap and install side lap fasteners at maximum 500mm centres full length of panel from eaves to ridge (concealed by membrane lap)

**j**  
Continue to install next tier of panels as items **a** to **i**

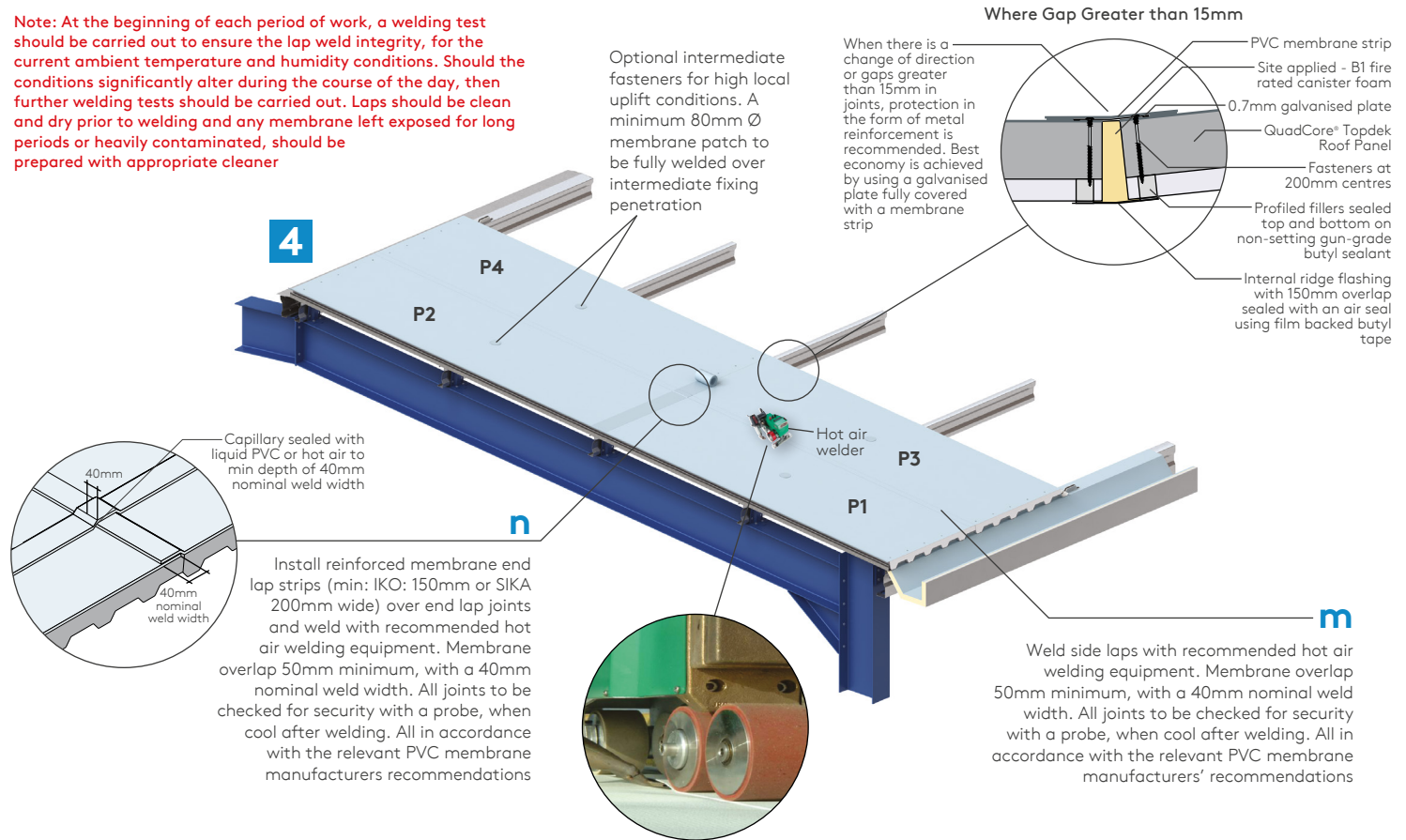
**l**  
Lift membrane lap and apply double sided acrylic tape along the full length of the panel



# QuadCore® Topdek Roof Panel

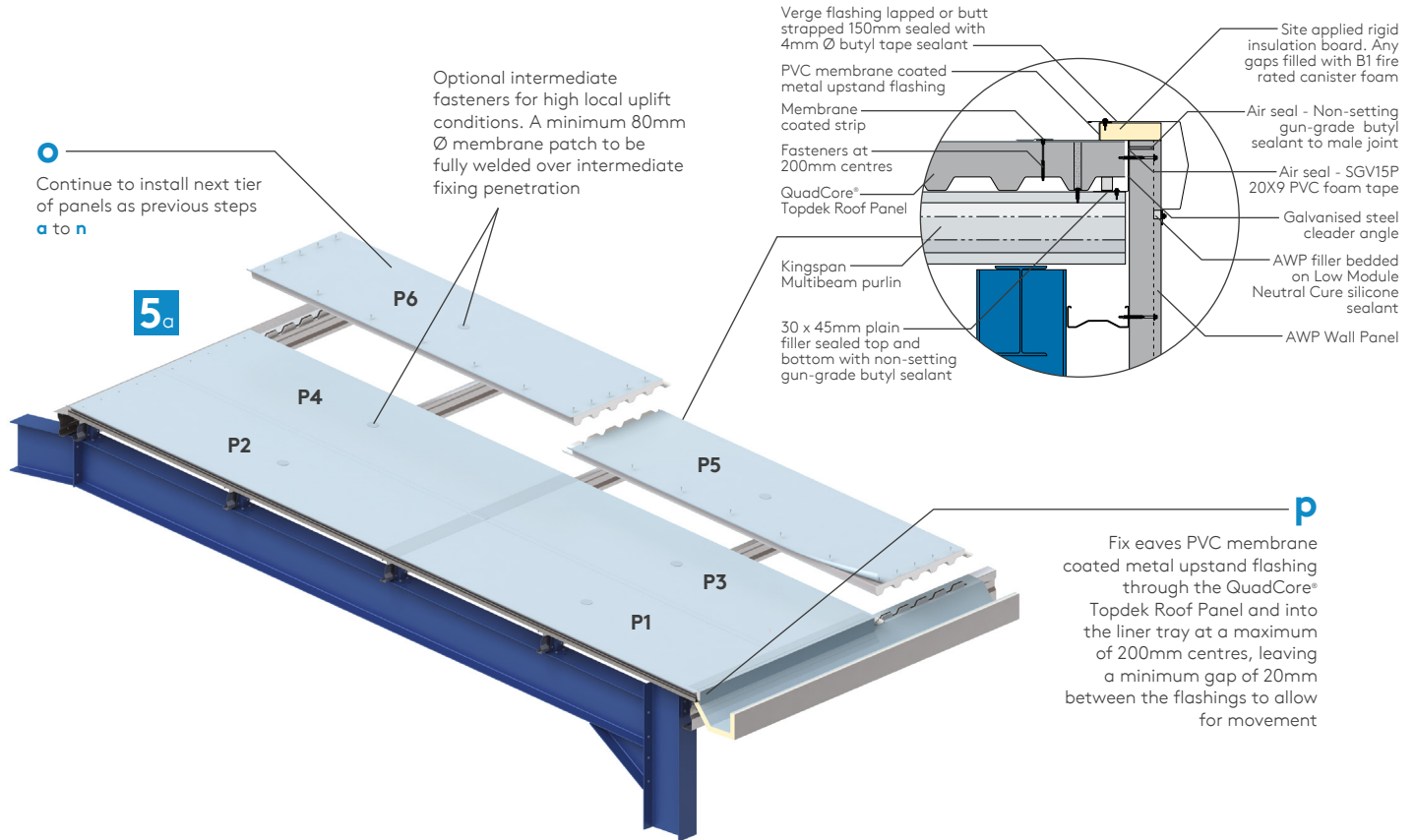
## Insulated Single Ply Roofdeck

**Note: At the beginning of each period of work, a welding test should be carried out to ensure the lap weld integrity, for the current ambient temperature and humidity conditions. Should the conditions significantly alter during the course of the day, then further welding tests should be carried out. Laps should be clean and dry prior to welding and any membrane left exposed for long periods or heavily contaminated, should be prepared with appropriate cleaner**



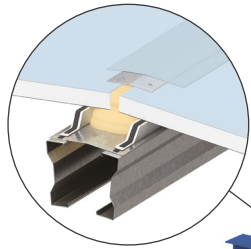
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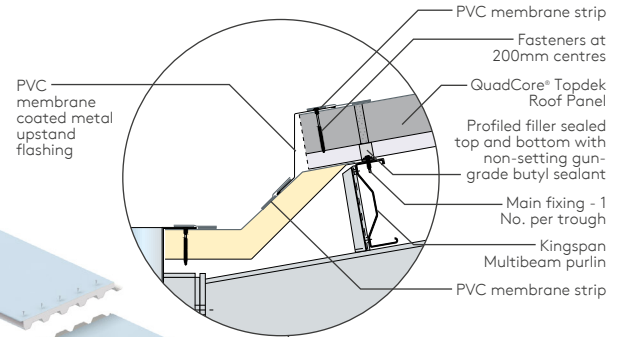
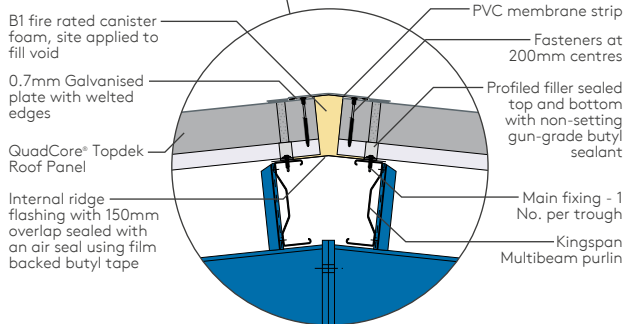
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5<sub>b</sub>

Fix galvanised ridge flashing through the QuadCore® Topdek Roof Panel and into the liner tray at a maximum of 200mm centres, leaving a minimum gap of 20mm between the flashings to allow for expansion. Install and weld reinforced ridge membrane lap strip with recommended hot air welding equipment.

Membrane overlap 50mm minimum, with a 40mm nominal weld width. All joints to be checked for security with a probe, when cool after welding. All in accordance with the relevant PVC membrane manufacturers' recommendations



**Note: Progress with remainder of roof and repeat installation procedures to suit project design layout**

9

Install reinforced PVC membrane lap strips to the top, bottom and butt joints of the eaves PVC membrane coated metal upstand flashing. Weld membrane lap strips with recommended hot air welding equipment. Membrane overlap 50mm minimum, with a 40mm nominal weld width. All joints to be checked for security with a probe when cool after welding. All in accordance with the relevant PVC membrane manufacturers' recommendations



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Installation guides are available for most of Kingspan insulated roof and wall panels.  
Please call Kingspan Tech-eXchange team on the numbers below.

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