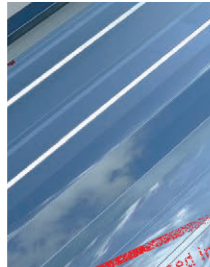
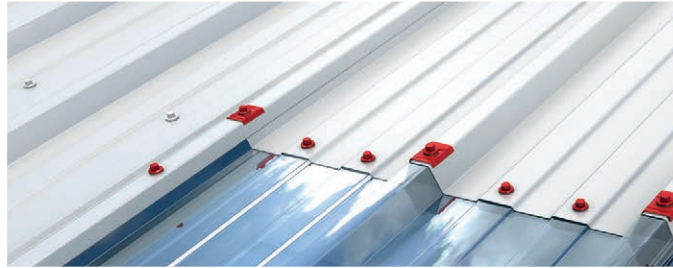




# QuadCore™ Panel / Day-Lite Trapezoidal KS1000 DLTR Installation Guide

75mm End Lap



*This Guide should be used in  
conjunction with the Trapezoidal  
Roof Installation Guide*

# QuadCore™ Panel / Day-Lite Trapezoidal KS1000 DLTR

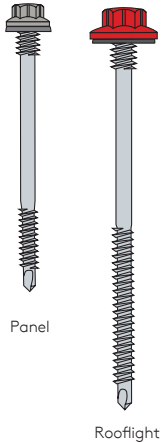
## 75mm End Lap

### Components

#### Day-Lite Trapezoidal Roof Panel



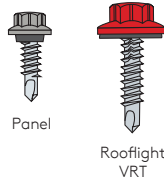
#### Primary / main fastener



Panel

Rooflight

#### Secondary / stitching screws



Panel

Rooflight  
VRT

#### Cordless screw driver



Depth locator

#### Non-setting gun-grade butyl sealant



#### Magnetic support spacer including spacer location bracket



30mm width

#### Storm washer



Storm 35-23 (DLTR)

#### Butyl tape sealants

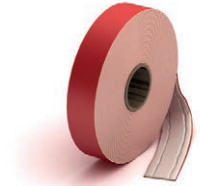


6 x 5mm 8mm Ø

#### PVC foam tape (SVG25)



#### Butyl co-laminate tape sealants



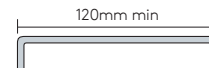
50mm x 8mm butyl tape with  
PE foam co-laminate centre  
(with red release paper)

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 reserves the right to amend the information at any time in the future. Installation guides are available for most of Kingspan insulated roof and wall panels.

Please call Kingspan Technical Services on:  
UK Tel: +44 (0)1352 716101 or Freephone: 0800 587 0090  
IRL Tel: +353 (0) 42 9698529  
[www.kingspanpanels.co.uk](http://www.kingspanpanels.co.uk) / [www.kingspanpanels.ie](http://www.kingspanpanels.ie)

#### Ledger plate



120mm min

# QuadCore™ Panel / Day-Lite Trapezoidal KS1000 DLTR

## 75mm End Lap

Note: sealant application is to Class A requirements.

Apply 8mm Ø air seal to ridge, verge and eaves positions – see Trapezoidal Roof Panel Installation Guide.

Gun-grade sealant referred to is: – non-setting butyl sealant.

Note: as an alternative to using butyl air sealants, a PVC foam tape (SVG25) can be used for an air seal. All sealants to suit project specification requirements.

Please refer to Technical Update EU87 on Internal Air Seals and consult with the Kingspan Technical Services Department for further guidance.

End lap 50 x 8mm butyl tape with PE foam co-laminate centre (red release paper).

Side lap 6 x 5mm butyl tape sealant.

Fastener to suit QuadCore™ panel specification requirements: stainless steel.

Fastener to suit PIR panel specification requirements: stainless steel or carbon subject to project requirements.

Should the panel core change from QuadCore™ to PIR Core, a minimum number of main fasteners at intermediate locations is 3No. subject to wind loads.

Fastener to suit Day-Lite Trapezoidal specification requirements: stainless steel.

Kingspan Day-Lite Trapezoidal must be kept out of direct sunlight at all times prior to installation (at both ground and roof level). The Kingspan Day-Lite packs must be covered with a non-transparent waterproof sheet.

Warning:

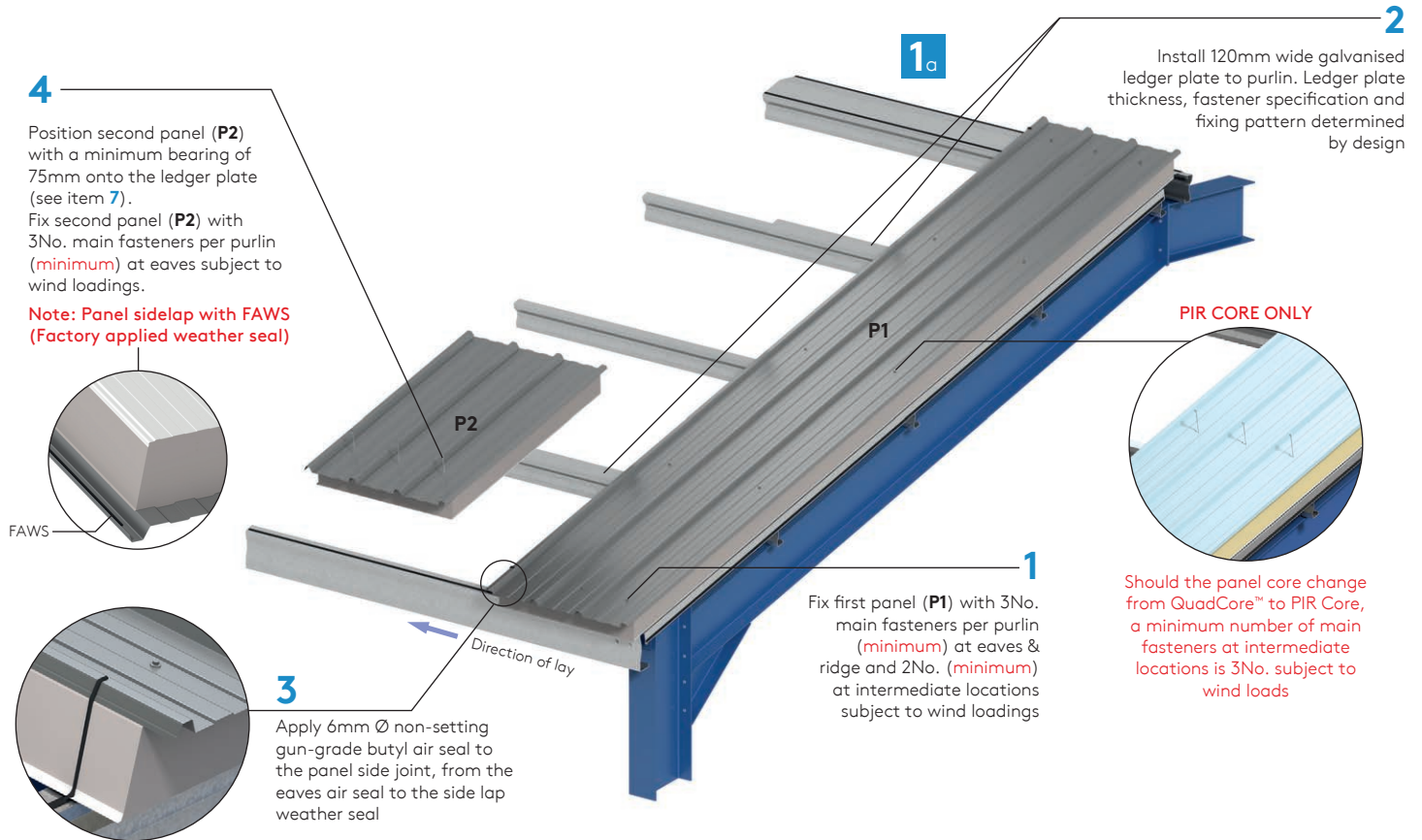
- All Kingspan Rooflights are not designed to be walked upon
- Do not use non-compatible silicone sealants with Kingspan Day-Lite Trapezoidal
- For many years sealant suppliers have advised caution when using sealants in temperatures less than +5°C
- Do not remove factory-applied barrier tape from underside of the side laps
- Do not use Kingspan Day-Lite Trapezoidal in a high humidity environment
- Use of FAWS only permitted on panel side lap to leading edge, see Envirocare Update 101
- It is important to follow enclosed fixing pattern to comply with non-fragility requirements

Colour of sealants within this installation guide are for illustration purposes only.



# QuadCore™ Panel / Day-Lite Trapezoidal KS1000 DLTR

75mm End Lap



# QuadCore™ Panel / Day-Lite Trapezoidal KS1000 DLTR

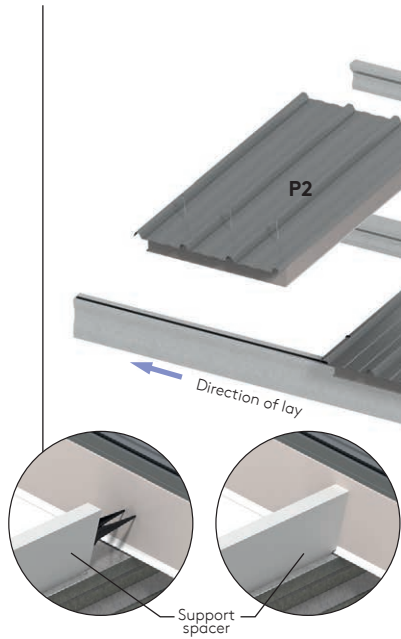
## 75mm End Lap

**5**

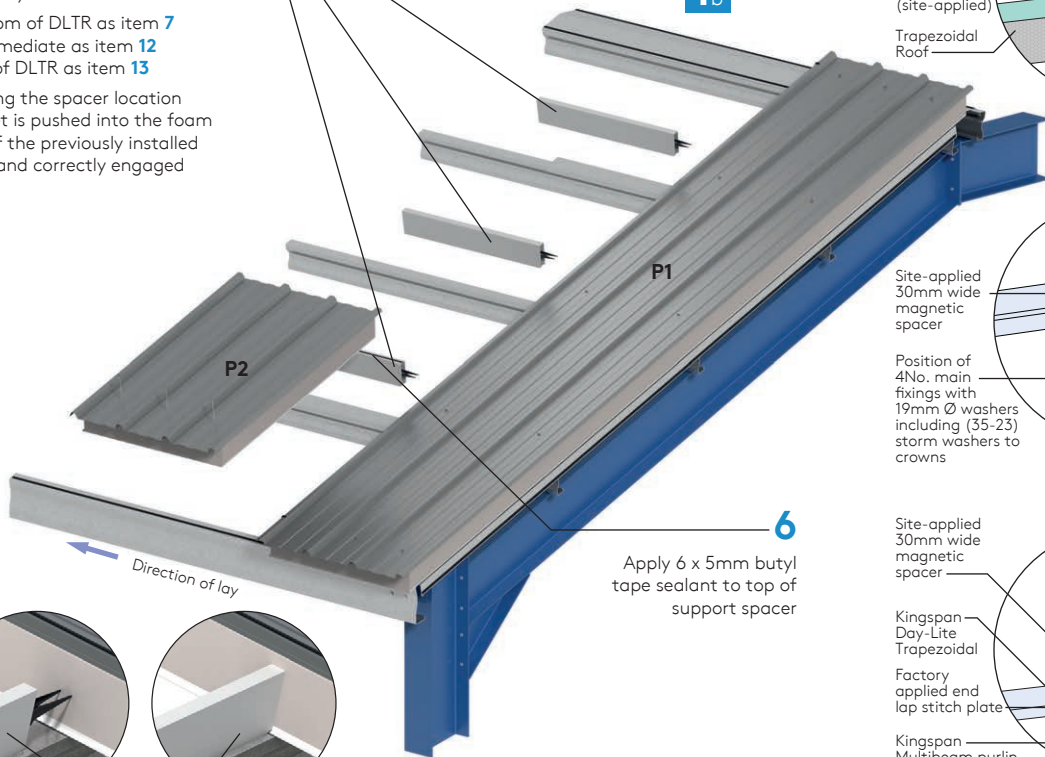
Position magnetic support spacer to each purlin (as illustrated on the right):

- Bottom of DLTR as item **7**
- Intermediate as item **12**
- Top of DLTR as item **13**

Ensuring the spacer location bracket is pushed into the foam core of the previously installed panel and correctly engaged



**1b**



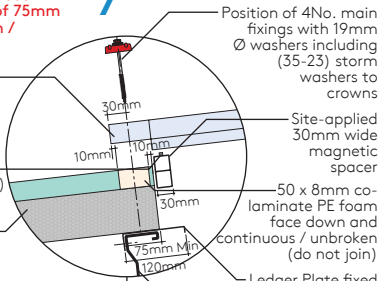
**6**

Apply 6 x 5mm butyl tape sealant to top of support spacer

The RW Trapezoidal roof panel must bear a min of 75mm on the purlin / ledger plate

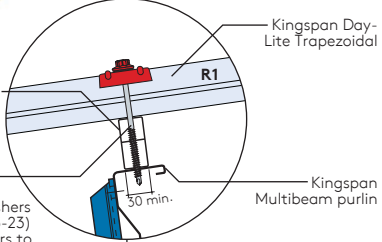
**7**

Kingspan Day-Lite Trapezoidal  
6 x 5mm butyl tape sealant (site-applied)  
Trapezoidal Roof



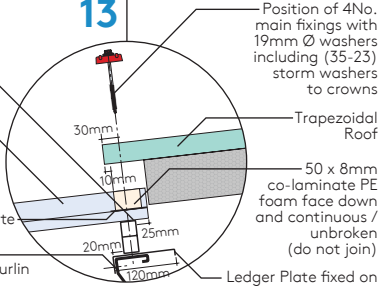
**12**

Site-applied 30mm wide magnetic spacer  
Position of 4No. main fixings with 19mm Ø washers including (35-23) storm washers to crowns



**13**

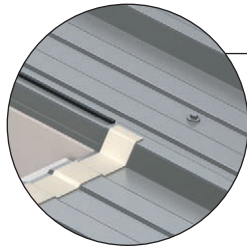
Site-applied 30mm wide magnetic spacer  
Kingspan Day-Lite Trapezoidal  
Factory applied end lap stitch plate  
Kingspan Multibeam purlin



The Kingspan Day-Lite Trapezoidal must bear a min of 75mm on the purlin / ledger plate

# QuadCore™ Panel / Day-Lite Trapezoidal KS1000 DLTR

## 75mm End Lap

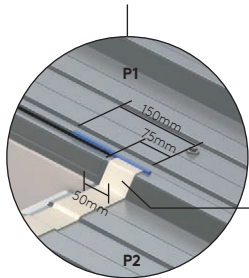


**8**

Apply 6 x 5mm butyl tape sealant to weatherside of panel (P1) side lap, from the top of the rooflight position, down and terminate at the top of (P2)

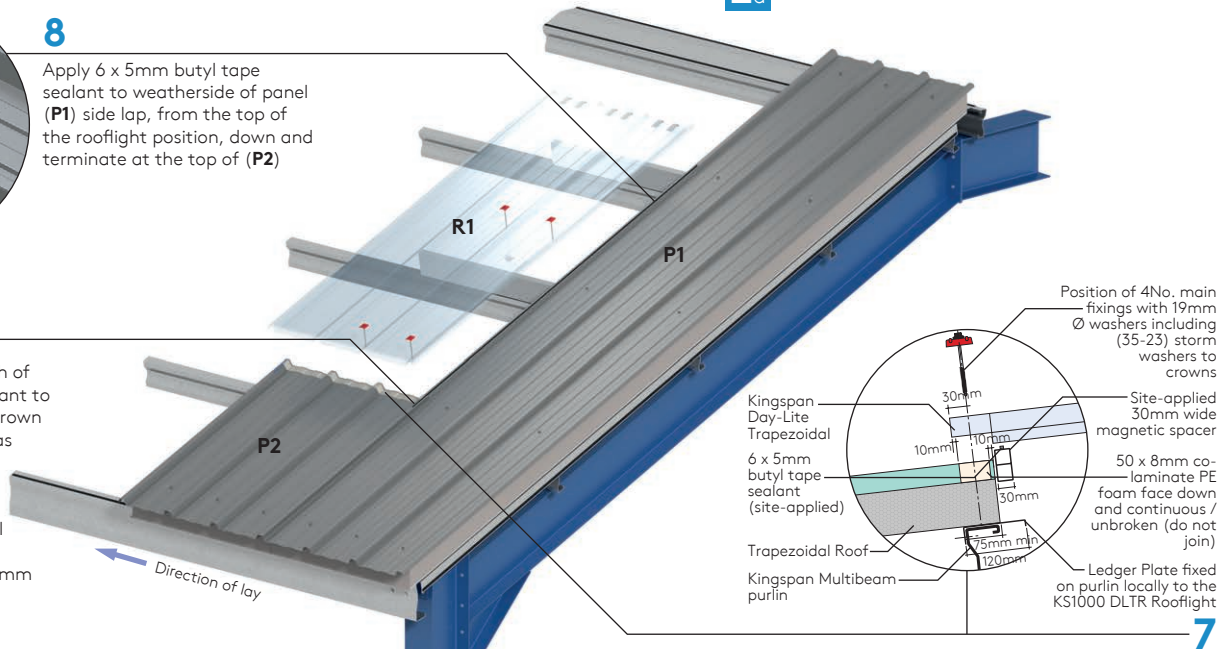
**9**

Additional 150mm length of 6 x 5mm butyl tape sealant to the weatherside of the crown profile from P2 onto P1 as illustrated. Ensure this is tightly abutted with the 50 x 8mm co-laminate end lap seal and laid on top of the previously installed 6 x 5mm side lap seal



50 x 8mm co-laminate PE foam face down and continuous / unbroken (do not join)

**2<sub>a</sub>**



**7**

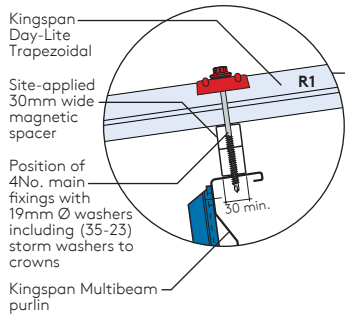
Apply 1 strip of 50 x 8mm co-laminate butyl tape sealant horizontally across the end lap. The strip sealant should be positioned 10mm nominal up from the end lap edge and should commence / terminate either end leaving sufficient area to apply a 6 x 5mm butyl tape sealant in order to complete the end lap detail.

Care should be taken to ensure the butyl tape sealant is not stretched and is firmly placed into the corners of the trapezoidal profile before removal of the red release paper.

**Note: the 50 x 8mm co-laminate must be PE foam face down and continuous / unbroken (do not join)**

# QuadCore™ Panel / Day-Lite Trapezoidal KS1000 DLTR

## 75mm End Lap



**12**

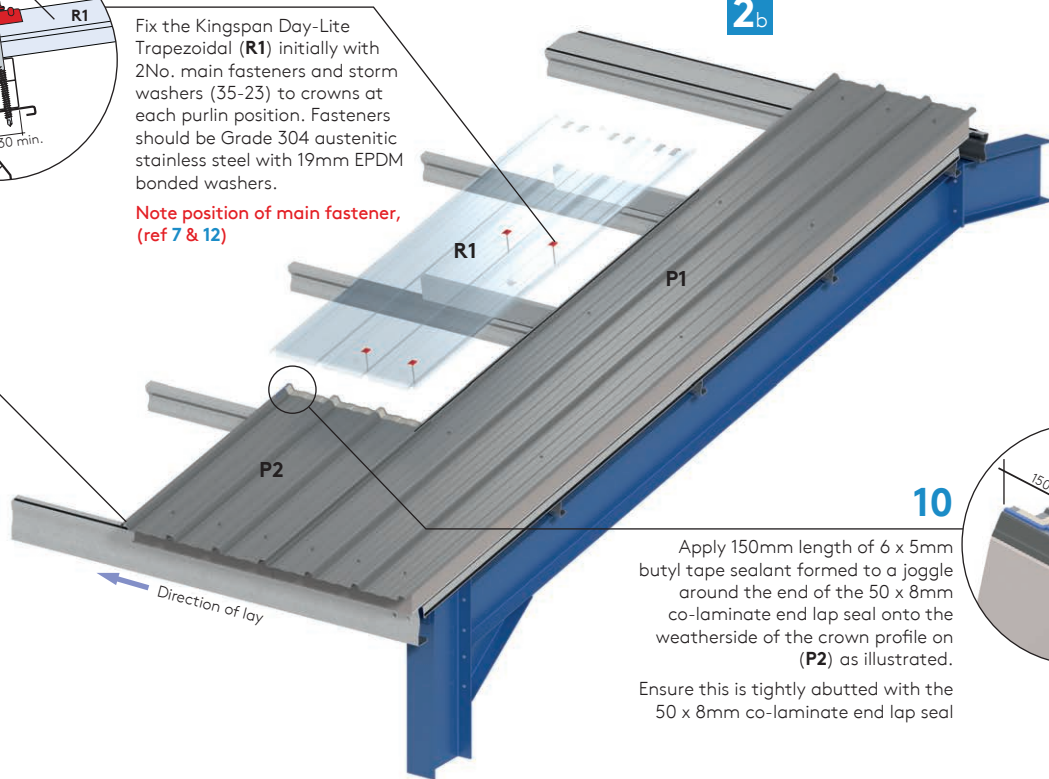
Fix the Kingspan Day-Lite Trapezoidal (**R1**) initially with 2No. main fasteners and storm washers (35-23) to crowns at each purlin position. Fasteners should be Grade 304 austenitic stainless steel with 19mm EPDM bonded washers.

**Note position of main fastener, (ref 7 & 12)**

**2b**

**11**

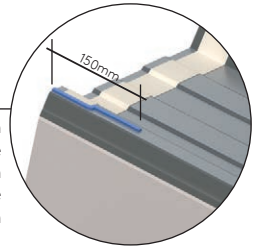
Apply side joint air seal as per item **3**



**10**

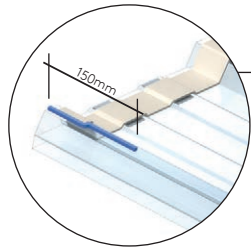
Apply 150mm length of 6 x 5mm butyl tape sealant formed to a joggle around the end of the 50 x 8mm co-laminate end lap seal onto the weatherside of the crown profile on (**P2**) as illustrated.

Ensure this is tightly abutted with the 50 x 8mm co-laminate end lap seal



# QuadCore™ Panel / Day-Lite Trapezoidal KS1000 DLTR

## 75mm End Lap



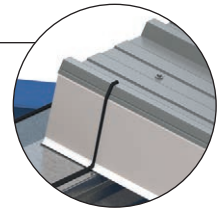
**15**

Apply 150mm length of 6 x 5mm butyl tape sealant formed to a joggle around the end of the 50 x 8mm co-laminate end lap seal onto the weatherside of the crown profile on (R1) as illustrated. Ensure this is tightly abutted with the 50 x 8mm co-laminate end lap seal

**3<sub>a</sub>**

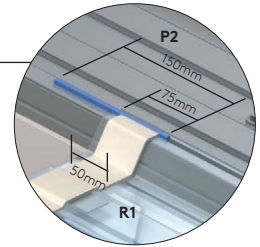
**16**

Apply 6mm Ø non-setting gun-grade butyl air seal to the panel side joint, from the ridge air seal to the side lap weather seal



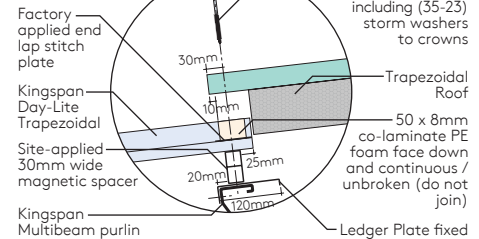
**14**

Additional 150mm length of 6 x 5mm butyl tape sealant to the weatherside of the crown profile from R1 onto P2 as illustrated. Ensure this is tightly abutted with the 50 x 8mm co-laminate end lap seal



**13**

Apply 1 strip of 50 x 8mm co-laminate butyl tape sealant horizontally across the end lap. The strip sealant should be positioned 10mm nominal up from the end lap edge and should commence / terminate either end leaving sufficient area to apply a 6 x 5mm butyl tape sealant in order to complete the end lap detail. Care should be taken to ensure the butyl tape sealant is not stretched and is firmly placed into the corners of the trapezoidal profile before removal of the red release paper.



**Note: Industry good practice would recommend that Kingspan Day-Lite Trapezoidal fastener heads and saddle washers are poppy red to identify the rooflight area**

**Note: the 50 x 8mm co-laminate must be PE foam face down and continuous / unbroken (do not join)**

**The Kingspan Day-Lite Trapezoidal must bear a min of 75mm on the purlin / ledger plate**

Position of 4No. main fixings with 19mm Ø washers including (35-25) storm washers to crowns

Trapezoidal Roof

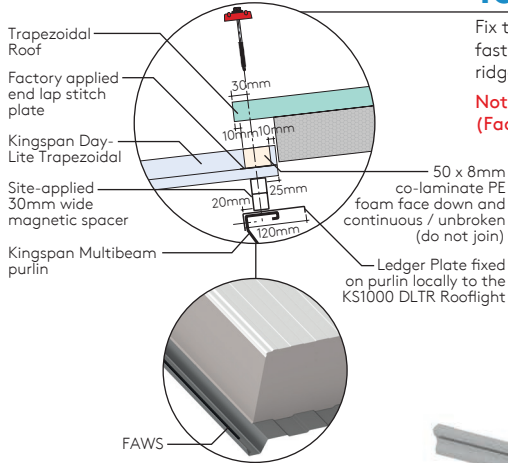
50 x 8mm co-laminate PE foam face down and continuous / unbroken (do not join)

Ledger Plate fixed on purlin locally to the KS1000 DLTR Rooflight



# QuadCore™ Panel / Day-Lite Trapezoidal KS1000 DLTR 75mm End Lap

The Kingspan Day-Lite Trapezoidal must bear a min of 75mm on the purlin / ledger plate

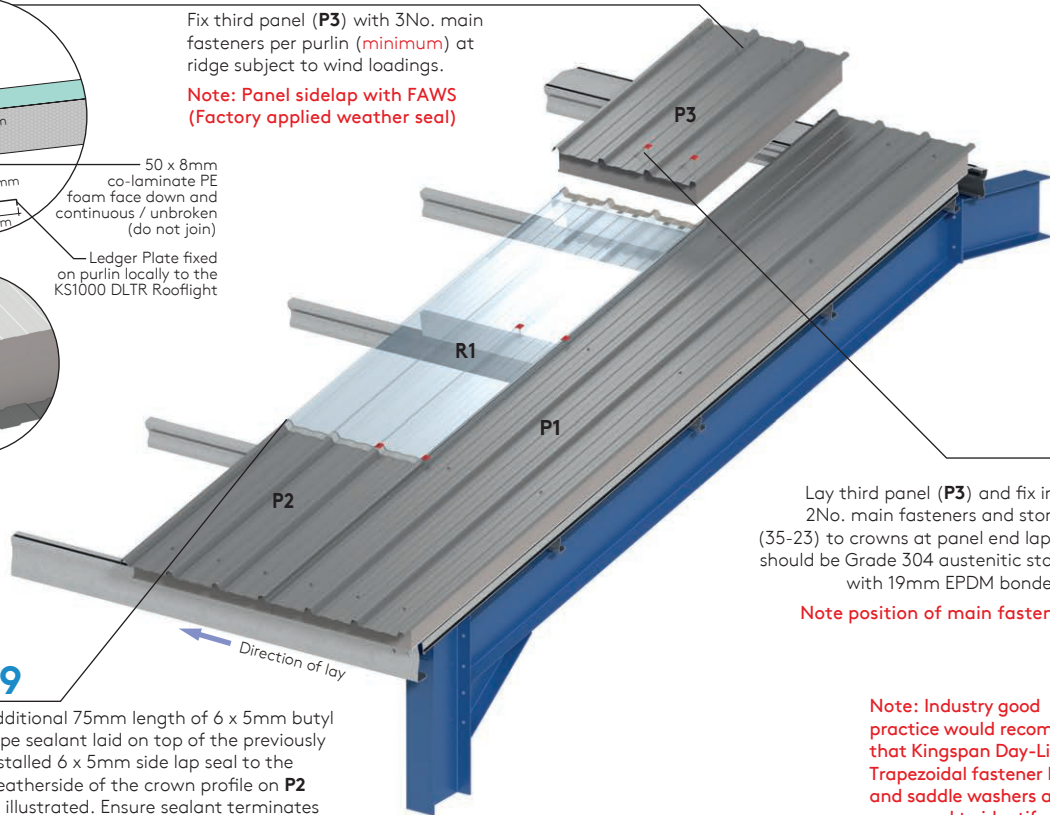


18

Fix third panel (P3) with 3No. main fasteners per purlin (minimum) at ridge subject to wind loadings.

**Note: Panel sidelap with FAWS (Factory applied weather seal)**

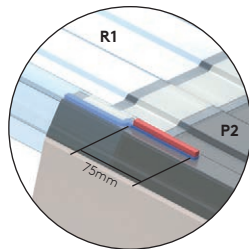
3<sub>b</sub>



17

Lay third panel (P3) and fix initially with 2No. main fasteners and storm washers (35-23) to crowns at panel end lap. Fasteners should be Grade 304 austenitic stainless steel with 19mm EPDM bonded washers.

**Note position of main fastener (ref 13)**



19

Additional 75mm length of 6 x 5mm butyl tape sealant laid on top of the previously installed 6 x 5mm side lap seal to the weatherside of the crown profile on P2 as illustrated. Ensure sealant terminates at the abutment with R1

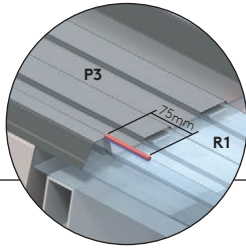
**Note: Industry good practice would recommend that Kingspan Day-Lite Trapezoidal fastener heads and saddle washers are poppy red to identify the rooflight area**

# QuadCore™ Panel / Day-Lite Trapezoidal KS1000 DLTR

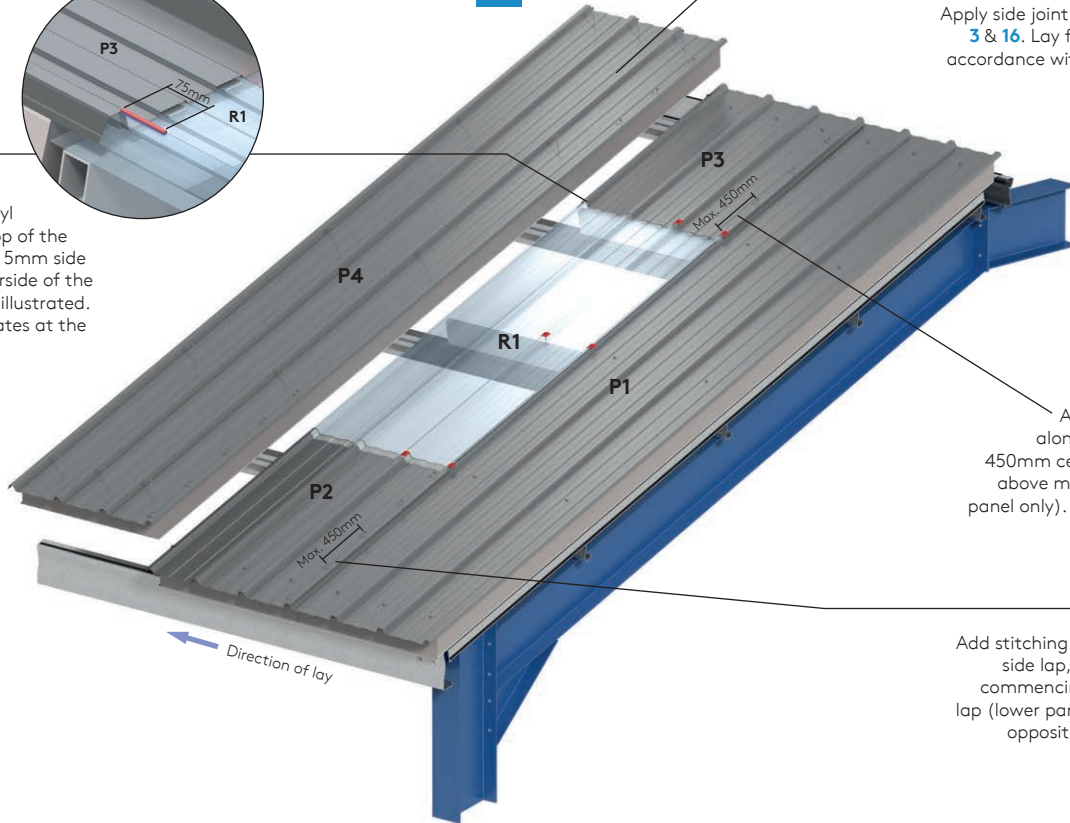
## 75mm End Lap

**20**

Additional 75mm length of 6 x 5mm butyl tape sealant laid on top of the previously installed 6 x 5mm side lap seal to the weatherside of the crown profile on **R1** as illustrated. Ensure sealant terminates at the abutment with **P3**



**4**



**22**

Apply side joint air seal as per item **3 & 16**. Lay fourth panel (**P4**) in accordance with Trapezoidal Roof Installation Guide

Add stitching screws along panel side lap, at 450mm centres commencing above main fastener (upper panel only). Repeat to opposite side in due course

**21**

Add stitching screws along panel side lap, at 450mm centres commencing 50mm from end lap (lower panel only). Repeat to opposite side in due course

# QuadCore™ Panel / Day-Lite Trapezoidal KS1000 DLTR

## 75mm End Lap

**Note:** It is extremely important to ensure Kingspan Day-Lite Trapezoidal rooflights are closed in by surrounding panels on all four sides during construction and at the end of each shift, to prevent water ingress entering the system

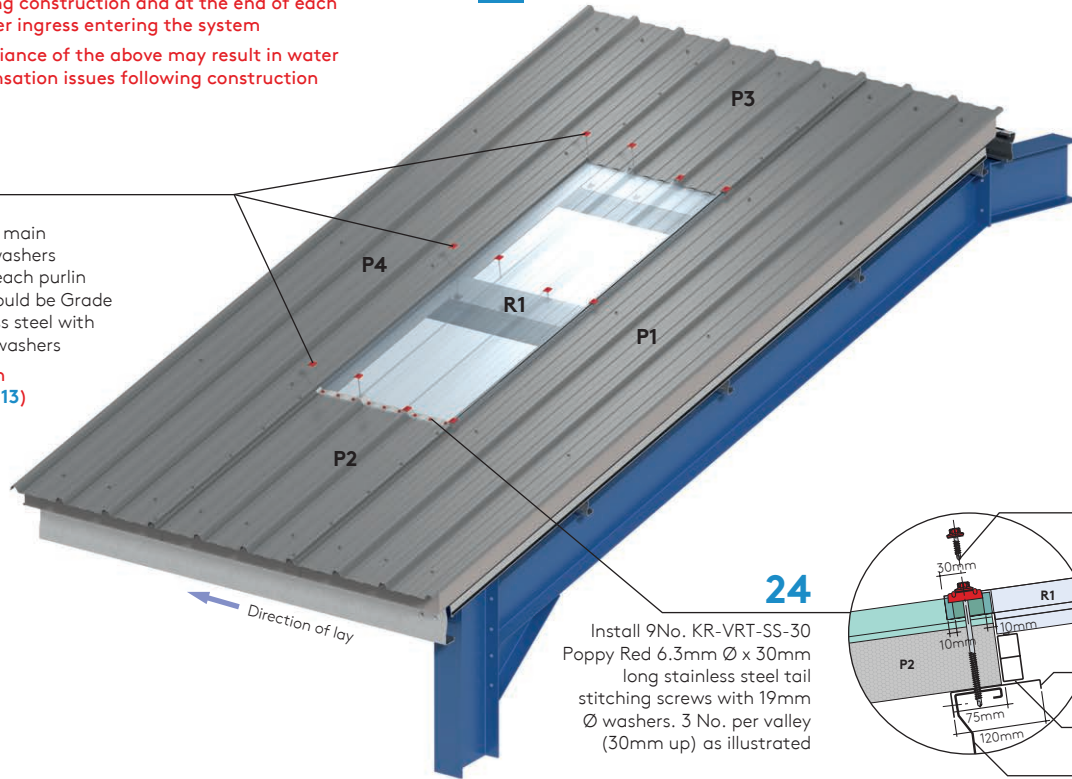
**Warning:** Non-compliance of the above may result in water retention and condensation issues following construction

**5<sub>a</sub>**

**23**

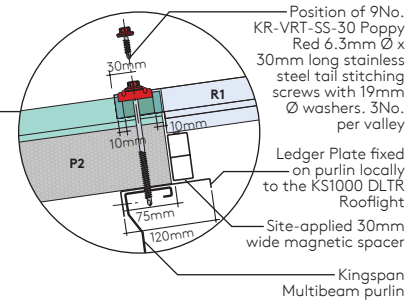
Install remaining 2No. main fasteners and storm washers (35-23) to crowns at each purlin position. Fasteners should be Grade 304 austenitic stainless steel with 19mm EPDM bonded washers

**Note position of main fasteners (ref 7, 12 & 13)**



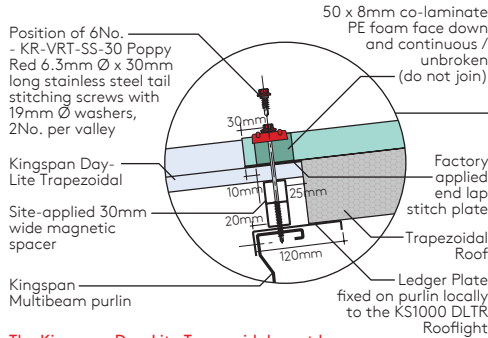
**24**

Install 9No. KR-VRT-SS-30 Poppy Red 6.3mm Ø x 30mm long stainless steel tail stitching screws with 19mm Ø washers. 3 No. per valley (30mm up) as illustrated



# QuadCore™ Panel / Day-Lite Trapezoidal KS1000 DLTR

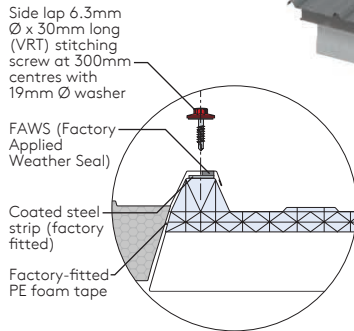
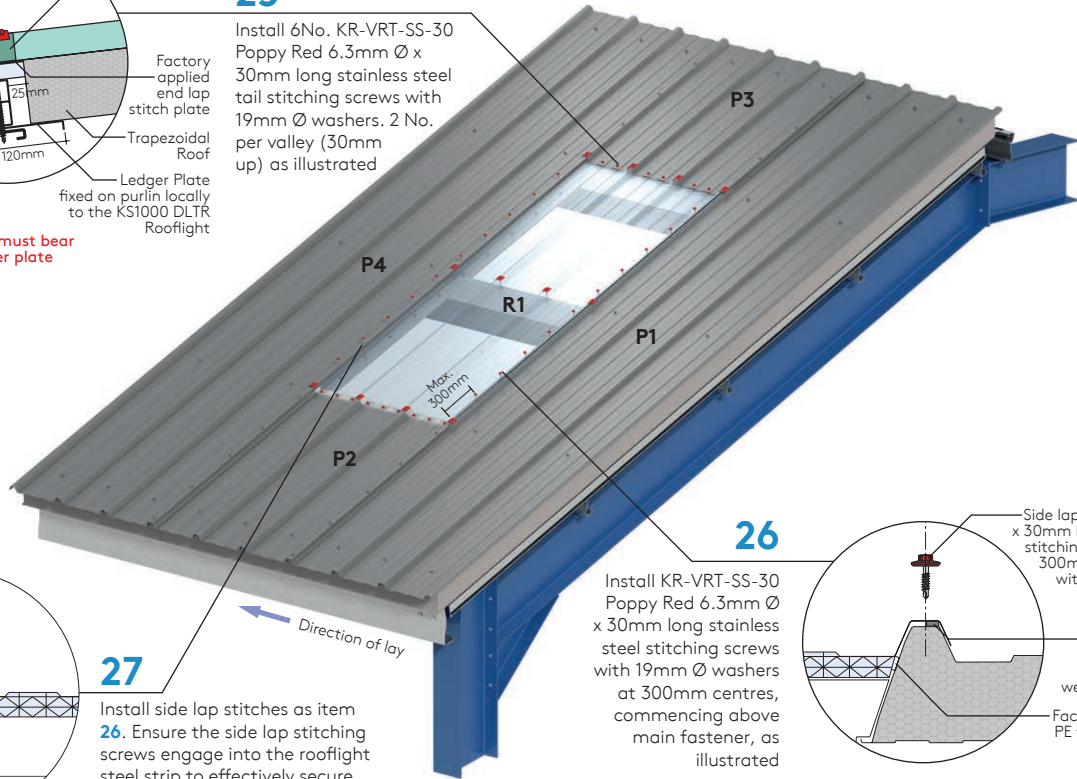
## 75mm End Lap



**The Kingspan Day-Lite Trapezoidal must bear a min of 75mm on the purlin / ledger plate**

**25**

Install 6No. KR-VRT-SS-30 Poppy Red 6.3mm Ø x 30mm long stainless steel tail stitching screws with 19mm Ø washers. 2 No. per valley (30mm up) as illustrated

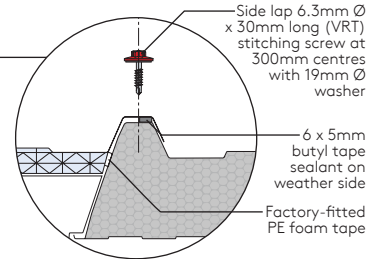


**27**

Install side lap stitches as item **26**. Ensure the side lap stitching screws engage into the rooflight steel strip to effectively secure and seal side lap

**26**

Install KR-VRT-SS-30 Poppy Red 6.3mm Ø x 30mm long stainless steel stitching screws with 19mm Ø washers at 300mm centres, commencing above main fastener, as illustrated



# QuadCore™ Panel / Day-Lite Trapezoidal KS1000 DLTR

75mm End Lap

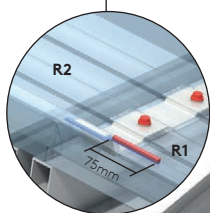
## Two Tier Rooflight

**29**

150mm length of 6 x 5mm butyl tape sealant formed to a joggle around the end of the 50 x 8mm co-laminate end lap seal onto the weatherside of the crown profile on **(R1)** as illustrated on the right.

Ensure this is tightly abutted with the 50 x 8mm co-laminate end lap seal.

Additional 75mm length of 6 x 5mm butyl tape sealant laid on top of the previously installed 6 x 5mm side lap seal to the weatherside of the crown profile on **R1** as illustrated. Ensure sealant terminates at the abutment with **R2** as illustrated below.



As items  
**15 & 20**

**6<sub>a</sub>**

**P3**

As item **14**

**R2**

**P4**

**P1**

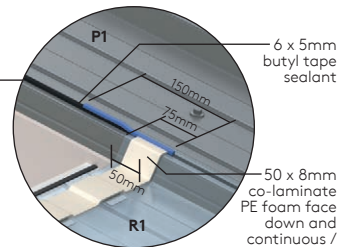
**R1**

**P2**

**28**

Additional 150mm length of 6 x 5mm butyl tape sealant to the weatherside of the crown profile from **R1** onto **P1** as illustrated.

Ensure this is tightly abutted with the 50 x 8mm co-laminate end lap seal and laid on top of the previously installed 6 x 5mm side lap seal



6 x 5mm  
butyl tape  
sealant

50 x 8mm  
co-laminate  
PE foam face  
down and  
continuous /  
unbroken  
(do not join)

As item **9**

As items  
**10 & 19**

Direction of lay

# QuadCore™ Panel / Day-Lite Trapezoidal KS1000 DLTR

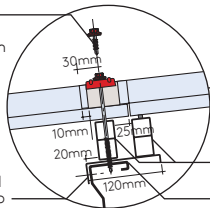
75mm End Lap

## Two Tier Rooflight

Position of 6No. KR-VRT-SS-30 Poppy Red 6.3mm Ø x 30mm long stainless steel rail stitching screws with 19mm Ø washers, 2No. per valley

Ledger Plate fixed on purlin locally to the KS1000 DLTR Rooflight

The Kingspan Day-Lite Trapezoidal must bear a min of 75mm on the purlin / ledger plate

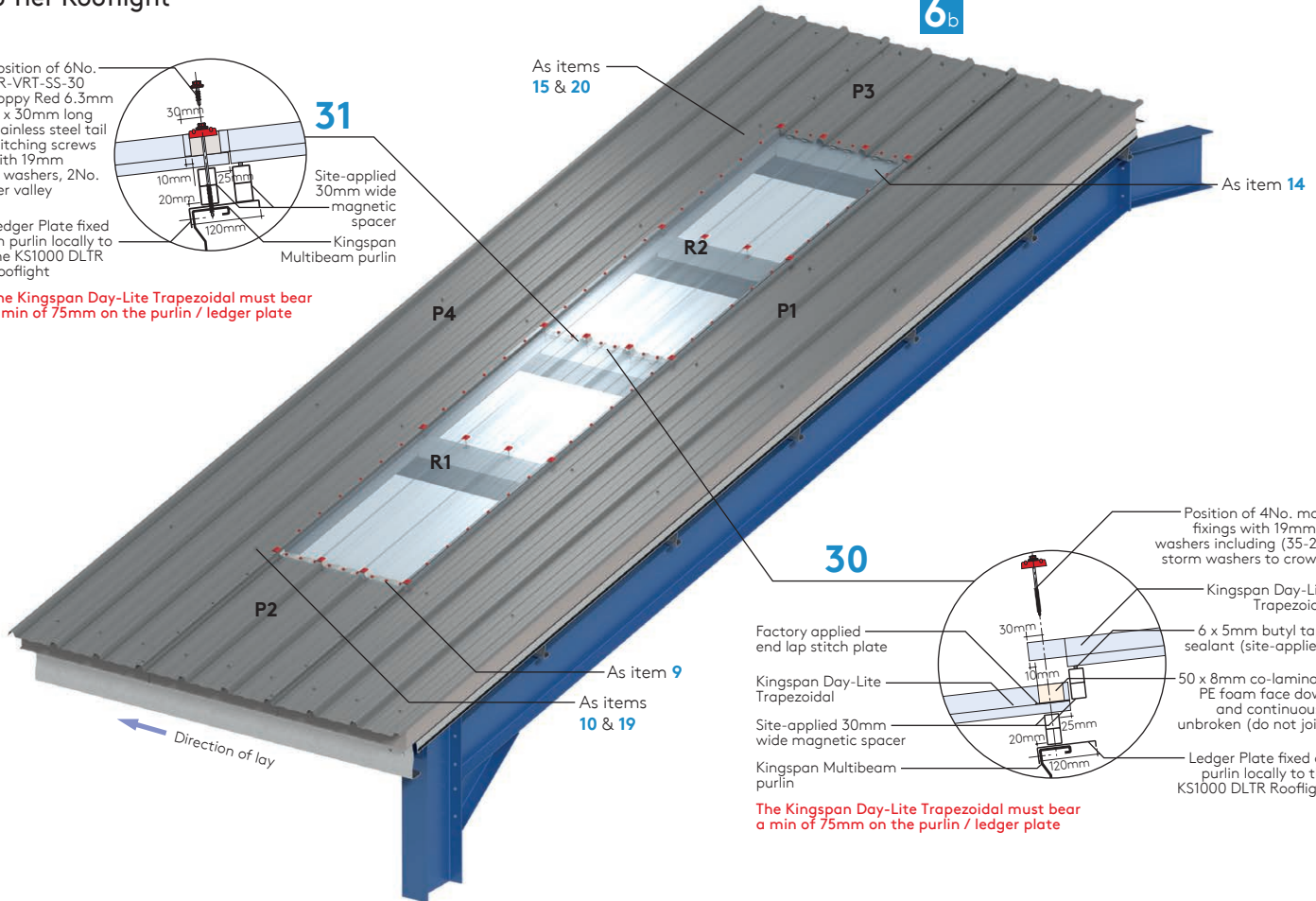


31

Site-applied 30mm wide magnetic spacer  
Kingspan Multibeam purlin

As items 15 & 20

6b



30

Position of 4No. main fixings with 19mm Ø washers including (35-23) storm washers to crowns

Kingspan Day-Lite Trapezoidal

6 x 5mm butyl tape sealant (site-applied)

50 x 8mm co-laminate PE foam face down and continuous / unbroken (do not join)

Ledger Plate fixed on purlin locally to the KS1000 DLTR Rooflight

Factory applied end lap stitch plate

Kingspan Day-Lite Trapezoidal

Site-applied 30mm wide magnetic spacer

Kingspan Multibeam purlin

30mm  
10mm  
20mm  
25mm  
120mm

The Kingspan Day-Lite Trapezoidal must bear a min of 75mm on the purlin / ledger plate





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UK Tel: +44 (0)1352 716101 or Freephone: 0800 587 0090  
IRL Tel: +353 (0) 42 9698529  
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