

# Installation Instructions and Maintenance Manual for:

\* RIDGE Rooflight



## RIDGE ROOFLIGHT OVERVIEW

Duplus Ridge rooflights are glazed with either two panes of 4mm toughened glass or two panes of 6mm toughened glass, subject to the specific rooflight design. 28mm double glazed units incorporating the latest Low E coating, warm edge spacer bar and argon filled cavity achieving a centre pane U-value of 1.1 W/m<sup>2</sup>K.

Our rooflights are suitable (as defined in BS5516-2:2004) up to a maximum height of 13 metres (from lowest point) above floor level.

For further clarification on any technical issues, please do not hesitate to contact Duplus.



# **CONTENTS**

1.0	Product Inspection	Page 4
2.0	Installation Hardware	Page 4
3.0	Kerb Suitability Check	Page 4
4.0	Installation	Page 5
5.0	Standard Glass Specification	Page 7
6.0	Glass Information	Page 8
7.0	Glass Breakage	Page 9
8.0	General Cleaning & Maintenance	Page 9
9.0	<b>Emergency Contact Information</b>	Page 10
10.0	Drawings	Page 11



# 1.0 Product Inspection

- 1.1 Upon receipt of your product firstly carry out an inspection of the packaging, if there are any signs of impact damage this should be reported to Duplus Architectural Systems (DAS) with suitable photographs within 24hrs of delivery. If no damage is found carefully remove the packaging, including the perimeter snap in cover clips (which must be retained) and fully inspect the product, again reporting any damage within 24hrs of delivery.
- 1.2 Do not use a knife when removing packaging; this may result in damage to the product.
- 1.3 Do not remove the wooden support feet until you have the rooflight next to the rooflight opening.
- 1.4 Do not attempt to carry the rooflight with the perimeter snap in cover clips in place.

### 2.0 Standard Installation Hardware

- 2.1 Plastic Horse Shoe packers in varying thicknesses, 5mm, 3mm, 2mm & 1mm
- 2.2 50mm long stainless steel wood screws.
- 2.3 Ridge gasket.
- 2.4 Neutral cure low modulus silicone sealant.

## 3.0 Kerb Suitability Check

3.0 A full inspection of the kerb should be undertaken before the installation begins. Please ensure there is sufficient unobstructed space around the immediate area, ensure all necessary safety systems are in place to enable safe working at height procedures. The kerbs should be surveyed to ensure dimensional accuracy. Please see drawings SB018 & SB019 for details.

#### Please Note:

3.2 Water ponding is more likely to occur where our product has been fitted to a shallow sloping kerb. However, it is not a sign of any failure within our product. Water will pond where there is an insufficient fall to make it drain away naturally. Easy clean coatings can improve the situation as they tend to smooth out any surface imperfections of the glass.



#### Important note.

- 3.3 Kerb must be fully weather tight before installation, external finishes should lap up and on to the top of the kerb before seating the SB Skylight in position. The top of the kerb should be flat with no pronounced level changes particularly at the corners.
- 3.4 To ensure water does not pond on the SB Skylight it is vital the kerb is built in accordance with the parameters set on drawings SB018 & SB019. Please note the kerb should always be formed as a flat annulus at the same pitch as the SB skylight.

## 4.0 Installation

#### Dry Run.

- 4.1 A dry run of the following installation guide is recommended to ensure the SB skylight fits on the kerb as expected and is in accordance with the tolerances specified on drawings attached.
- 4.2 Ensure all packaging is removed from the skylight including removing the wooden feet from the product and perimeter snap in cover clips. Note, the ridge rooflight will be supplied in two separate glazed pieces (one for each side of the ridge) to be joined and sealed at the ridge on site by the installer.
- 4.3 Select the largest of the glazed pieces. Lower this piece onto the kerb taking care to position it centrally in width (Note: LIFT do not slide the rooflight as this may dislodge the foam tape and bubble gasket (underside of frame) which can lead to future weathering issues), here the vertical fixing leg should overhang the kerb by approximately 22mm from outside of kerb to outside of SB skylight see drawing SB019 Detail B.
- 4.4 To position the rooflight correctly in its length, locate the frame so that it is in-line with the ridge of the kerb see drawing SB020 Detail A.
- 4.5 Remove this piece and repeat item 4.3 for remaining glazed piece.
- 4.6 If you are satisfied the kerb is as expected and the correct tolerances are achieved you can prepare the kerb for the installation.

#### Rooflight Installation.

- 4.7 Follow 4.3 and 4.4 for the first piece of the ridge rooflight ensuring you LIFT and do not slide the rooflight as this may dislodge the foam tape and bubble gasket (underside of frame) which can lead to future weathering issues.
- 4.8 <u>IMPORTANT: Please check to ensure that the gasket on the underside of the frame is in place</u> prior to securing the glazed piece with screws see drawing SB020 Detail A.
- 4.9 Ensuring the top of the frame of this piece of the ridge rooflight is in-line with the ridge of the kerb, fix the unit to the kerb using the supplied wood screws through the pre drilled holes ensuring a suitable amount of supplied horseshoe packers are placed between the kerb and the aluminium skylight to avoid deformation of the aluminium profile when tightening. (Note: do not attempt to install a fixing within 50mm of the ridge)



- 4.10 Apply a small amount of silicone to the edge of the frame at the ridge prior to joining together see drawing SB020 Detail B.
- 4.11 Now locate the second piece of the ridge rooflight on the opposite side ensuring the frames are in line-in and touch at the ridge.
- 4.12 Using the supplied aluminium 'V-shaped' jig, place these into the frame as per drawing SB020 Detail A. Adjust either frame until it is correctly aligned using the jig.
- 4.13 Now secure the second piece using the supplied wood screws through the pre drilled holes ensuring a suitable amount of supplied horseshoe packers are placed between the kerb and the aluminium skylight to avoid deformation of the aluminium profile when tightening.
- 4.14 Now the unit is secured to the kerb the perimeter aluminium snap in cover clips which conceal the fixings can be applied, ensure the clip is positioned so that the mitre on the end lines through with the mitre on the frame of the unit. The top section should be engaged first then rotated down and clipped in place, a rubber mallet and clean timber cushioning block may be used to ensure sufficient engagement and care should be taken to avoid distortion of the clip.
- 4.15 Locate (supplied) ridge gasket at both ends and centre of the ridge and then push down between these points so that the gasket rests between the bottom panes of the insulated glass units. (Note, gasket should not project beyond the internal face of the glass)
- 4.16 Apply a generous amount of low modulus neutral cure silicone (supplied by Duplus) along the ridge between the glass units (see drawing SB019 Detail C) filling the void between the top of the ridge gasket and the top surface of the glass along the whole length all the way to the internal edge of the ridge rooflight frame.
- 4.17 Place the silicone tool (supplied) onto the top of the rooflight glass at the ridge, draw the tool along the ridge using the glass edges as a guide to compress the silicone against the top of the ridge gasket and to create a watertight seal between the glass units and the aluminium framework. Ensure that there are no gaps and that all excess silicone is removed from the glass and frame.
- 4.18 Once the silicone has sufficiently cured, prepare to fit the ridge cap by cleaning the glass edges at the ridge (approximately 100mm down on each side). Take the ridge cap supplied and remove the plastic backing tape to both edges, centralise and apply pressure to adhere ridge cap to glass.

#### **Important Note**

4.19 If security screws are used, please be aware the security screw cannot be removed, so ensure you have followed the above step carefully before fixing the product to the kerb.



## 5.0 Standard Glass Specification

Standard glass double glazed unit description (subject to rooflight design)

Outer Pane 4mm toughened

Cavity 20mm argon with warm edge spacer

Inner Pane 4mm low E coated Toughened

Light transmission 80%

Solar Gain 0.63

Centre Pane U-value 1.1Wm<sup>2</sup>K

Weight 20Kg/m<sup>2</sup>

Outer Pane 6mm toughened

Cavity 16mm argon with warm edge spacer

Inner Pane 6mm low E coated Toughened

Light transmission 78%

Solar Gain 0.61

Centre Pane U-value 1.1Wm<sup>2</sup>K

Weight 30Kg/m<sup>2</sup>



## 6.0 Glass Information

Glass Type	Light Transmission (LT)	Total Solar Energy Transmittance (g val- ue)	Centre Pane U-value
4mm Toughened / Argon / 4mm Toughened Soft Coat Low E	80%	63%	1.1 W/m²K
4mm Toughened Grey Tint / Argon / 4mm Toughened Soft Coat Low E	50%	49%	1.1 W/m²K
4mm Toughened Blue Tint / Argon / 4mm Toughened Soft Coat Low E	57%	41%	1.1 W/m²K
6mm Toughened / Argon / 6mm Toughened Soft Coat Low E	78%	61%	1.1 W/m²K
6mm Toughened Grey Tint / Argon / 6mm Toughened Soft Coat Low E	38%	35%	1.1 W/m²K
6mm Toughened Blue Tint / Argon / 6mm Toughened Soft Coat Low E	47%	33%	1.1 W/m²K
6mm Toughened HP Solar Control (Neutral) / Argon / 6mm Toughened	70%	40%	1.1 W/m²K

**Light Transmission (LT)** is the proportion of visible light at near normal incidence that is transmitted through the glass.

**Total Solar Energy Transmittance (g-value)** is the fraction of solar radiation at near normal incidence that is transferred through the glazing by all means.

**U-Value** is the rate of loss of heat per square metre, under steady state conditions, for a temperature difference of one Kelvin between the inner and outer environments separated by the glass.

**HP Solar Control** is Guardian Sunguard high selective super neutral coating that gives an excellent solar control performance and also a high light transmission.

**Tint** is a glass that has a coloured tint which gives excellent solar control, but has reduced light transmission.



## 7.0 Glass Breakage

7.1 Glass breakages are not covered under warranty. Should you experience a glass break please contact Duplus Architectural Systems Head office to order a replacement rooflight.

# 8.0 General Cleaning & Maintenance

- 8.1 The appearance, durability and performance of Duplus products, regardless of the material from which they are made, are always dependent on regular cleaning and maintenance. Cleaning therefore contributes considerably to the effective life of the system. All Duplus products should be cleaned regularly and at time intervals depending upon the accumulation of dirt. We should expect a minimum regime of 6 monthly clean and maintenance checks.
- 8.2 Those engaged on maintenance or cleaning work should use suitable equipment (see BS8213). Experienced operatives should be employed particularly in respect to rooflight/high level cleaning.
- 8.3 Note under no circumstance should you attempt to walk on or load Duplus rooflight products regardless of their fragility status.
- 8.4 The cleaning process is generally uncomplicated, consisting of washing down with warm water and mild detergent. Abrasive, caustic and chemical treatments are unnecessary, and may actually cause damage to the exposed surfaces of our products. A soft cloth or brush may be used to remove persistent contamination. However, care should be taken to avoid rubbing dirt into the system components. In the case of paint or bitumen splashes, white spirit applied with a soft cloth may be used with care, we would recommend a small area is tested first but do not allow white spirit to run onto unaffected areas. A final rinse with clean water will complete the process.
- 8.5 The product should be checked for movement on the kerb, if movement is found remove fixing snap in cover clip and check tightness of screws.

#### **Important Note:**

- 8.6 An annual review of perimeter silicone should be made to confirm that the perimeter seal between the glass and frame is intact. If the seal is not intact i.e., if this seal has been removed or degraded, the area should be cleaned and dried and re-sealed with Dow Corning 791 silicone sealant at the earliest opportunity. If water sits against the edge of a double glazed unit because the outer seal is no longer intact, Duplus will accept no responsibility of the glass unit breakdown as a result. Please be aware, although rare, it has been known for birds to peck away at silicone.
- 8.7 An annual review of the glass should be made and in the very rare event there appears to be any signs of glass movement, please contact Duplus at the earliest opportunity.



# 9.0 Emergency Contact Information

#### **Office Hours**

Monday – Thursday: 8am – 12.45pm 1.30pm – 5pm

Friday: 8.30am – 1pm

#### **Telephone**

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