



Product Description

Surespan Glass Trade Rooflights are individual glass rooflights intended for installation on flat roofs of all modern building types to provide natural light (and ventilation where specified). Surespan Glass Trade Rooflights are manufactured to ISO9001 industry standards.

Appearance

Surespan Glass Trade exhibits a sleek and contemporary design with a slimline powder coated frame and flush fitting glass panel.

Design Features

- Premium rooflight offering a robust build as well as protection against intrusion or vandalism.
- Powder coated aluminium frame as standard (RAL 7016).
- Centre pane U-value of 1.1 W/m²K.
- Components of powered opening rooflights (230V) are completely concealed for an unobstructed light well. Exposed actuators are required on units over 1200mm x 1200mm (square) and 1500mm x 1050mm (rectangle).
- Tested to be non-fragile to CWCT TN-92 (for class 2 roofs) and Class B non-fragile to ACR[M]001.
- For ease of installation, the tapered kerb foot does not require timber fillets and an integral clamp holds the roofing membrane in place and provides a clean external finish for all roofing types.



Product Options Summary (see page 2 onwards for details)

Hinged Opening

- Manual opening
- Powered with wall-switch (chain actuator)
- Optional Remote Controlled Operation
- Optional Rain Sensor Operation

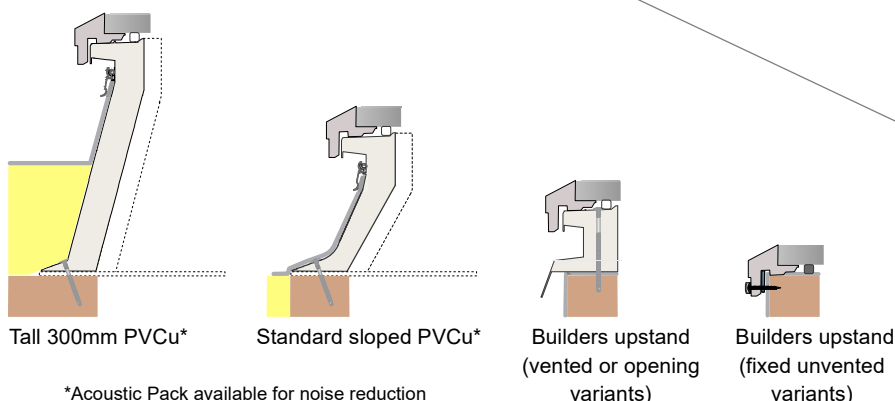
Optional Ventilation

- Manual Hit-and-Miss
- Automatic Humidity Controlled
- Powervent high extraction ventilation

Glazing Type

- Flat glass :
 - 6mm toughened outer, 90% Argon filled cavity, 9.5mm laminated soft coat Low E inner with 1.5mm PVB interlayer.
 - (NB - for very large sizes inner pane increases to 11.5mm)
 - CWCT TN-92 for class 2 roofs
 - ACR[M]001 Class B non-fragile
 - Glass panel is P4A secure

Kerb



*Acoustic Pack available for noise reduction

Size (roof opening)
Standard range:
see Table 1 on Page 2
In square and rectangular combinations.

Optional Burglar Bars

Composition

The double glazed glass panel is made up of: 6mm toughened outer, a 90% argon filled cavity, with a 9.5mm laminated soft coat Low E inner (inc. 1.5mm PVB interlayer). For larger sizes the inner pane thickness is increased to 11.5mm.

The frame is extruded aluminium, with a powder coating (RAL 7016) to provide a premium appearance and highly appealing finish. The rooflight assembly is thermally broken to provide excellent thermal performance. The kerbs are manufactured from Lead & Cadmium free un-plasticised PVC rigid multi-wall extruded profile, with internal white finish. The Glass, PVC-U and Aluminium which comprise the product can be recycled at the end of useful product life.

Durability

Surespan Glass Trade units are expected to remain fit for purpose in normal industrial conditions for a period of 20 years (guaranteed for 10 years), i.e. they will not become perforated, lose significant structural integrity or distort to the extent of losing weather-tightness. Electrical actuators (where present), are guaranteed for a period of 1 year; actuators have a design life of at least 10,000 cycles. Insulated glass used in the construction of the rooflight is guaranteed for 5 years.

Safety Requirements/CDM Regulations

Surespan Glass Trade achieves CWCT TN-92 non-fragility on class-2 roofs and ACR[M]001 class B non-fragility when new and fully installed in accordance with Surespan Installation Guides. Foot traffic on rooflights should always be avoided; impacts such as foot traffic or a falling person may cause damage which could necessitate rooflight replacement. All glass panels are BS EN12150, BS 14449 and BS 1279 compliant.

Security

All fixed Surespan Glass Trade units are fitted to a builders upstand or a PVC kerb using self-drilling, anti-tamper security fixings. All fixing heads are concealed using colour-matched cover caps.

Fire Rating

Building Regulations Approved Document B (2006 edition, amended 2007) sets out the rules for fire safety of buildings, which can be met by achieving specific fire ratings to either British (BS476) or European (BS EN 13501) test standards. Surespan Glass Trade achieves Class 1 to BS 476 part 7.

Available Options

Table 1
Sizes of Rooflights

Bold indicates unit size, Italics indicates daylight area (mm)

Standard sizes

600 x 600	450 x 450	900 x 900	750 x 750	1200 x 900	1050 x 750
750 x 750	600 x 600	1000 x 1000	850 x 850	1200 x 1200	1050 x 1050
900 x 600	750 x 450	1200 x 600	1050 x 450	1500 x 1000	1350 x 850

Non-standard sizes

750 x 600	600 x 450	1950 x 1200	1800 x 1050	3000 x 1200	2850 x 1050
900 x 750	750 x 600	1950 x 1350	1800 x 1200	3000 x 1350	2850 x 1200
1050 x 600	900 x 450	1950 x 1500	1800 x 1350	3000 x 1500	2850 x 1350
1050 x 750	900 x 600	1950 x 1650	1800 x 1500	3000 x 1650	2850 x 1500
1050 x 900	900 x 750	1950 x 1800	1800 x 1650	3150 x 1050	3000 x 900
1050 x 1050	900 x 900	1950 x 1950	1800 x 1800	3150 x 1200	3000 x 1050
1200 x 750	1050 x 600	2000 x 1000	1850 x 850	3150 x 1350	3000 x 1200
1200 x 1050	1050 x 900	2000 x 1500	1850 x 1350	3150 x 1500	3000 x 1350
1350 x 600	1200 x 450	2000 x 2000	1850 x 1850	3150 x 1650	3000 x 1500
1350 x 750	1200 x 600	2100 x 900	1950 x 750	3300 x 1200	3150 x 1050
1350 x 900	1200 x 750	2100 x 1050	1950 x 900	3300 x 1350	3150 x 1200
1350 x 1050	1200 x 900	2100 x 1200	1950 x 1050	3300 x 1500	3150 x 1350
1350 x 1200	1200 x 1050	2100 x 1350	1950 x 1200	3300 x 1650	3150 x 1500
1350 x 1350	1200 x 1200	2100 x 1500	1950 x 1350	3450 x 1200	3300 x 1050
1500 x 600	1350 x 450	2100 x 1650	1950 x 1500	3450 x 1350	3300 x 1200
1500 x 750	1350 x 600	2250 x 1050	2100 x 900	3450 x 1500	3300 x 1350
1500 x 900	1350 x 750	2250 x 1200	2100 x 1050	3450 x 1650	3300 x 1500
1500 x 1050	1350 x 900	2250 x 1350	2100 x 1200	3600 x 1500	3450 x 1350
1500 x 1200	1350 x 1050	2250 x 1500	2100 x 1350	3600 x 1650	3450 x 1500
1500 x 1350	1350 x 1200	2250 x 1650	2100 x 1500		
1500 x 1500	1350 x 1350	2400 x 1050	2250 x 900		
1650 x 600	1500 x 450	2400 x 1200	2250 x 1050		
1650 x 750	1500 x 600	2400 x 1350	2250 x 1200		
1650 x 900	1500 x 750	2400 x 1500	2250 x 1350		
1650 x 1050	1500 x 900	2400 x 1650	2250 x 1500		
1650 x 1200	1500 x 1050	2550 x 1050	2400 x 900		
1650 x 1350	1500 x 1200	2550 x 1200	2400 x 1050		
1650 x 1500	1500 x 1350	2550 x 1350	2400 x 1200		
1650 x 1650	1500 x 1500	2550 x 1500	2400 x 1350		
1800 x 600	1650 x 450	2550 x 1650	2400 x 1500		
1800 x 750	1650 x 600	2700 x 1050	2550 x 900		
1800 x 900	1650 x 750	2700 x 1200	2550 x 1050		
1800 x 1050	1650 x 900	2700 x 1350	2550 x 1200		
1800 x 1200	1650 x 1050	2700 x 1500	2550 x 1350		
1800 x 1350	1650 x 1200	2700 x 1650	2550 x 1500		
1800 x 1500	1650 x 1350	2850 x 1050	2700 x 900		
1800 x 1650	1650 x 1500	2850 x 1200	2700 x 1050		
1800 x 1800	1650 x 1650	2850 x 1350	2700 x 1200		
1950 x 750	1800 x 600	2850 x 1500	2700 x 1350		
1950 x 900	1800 x 750	2850 x 1650	2700 x 1500		
1950 x 1050	1800 x 900	3000 x 1050	2850 x 900		

Standard minimum rooflight pitch of 2°

Minimum pitch of highlighted units is 4°

Note: Custom sizes are available on request. Please contact BMDS to discuss requirements.

Available Options Continued

Ventilation:

Ventilation can help reduce humidity, and reduce risk of condensation and should be considered in any areas of high humidity. Surespan Glass Trade rooflights may be unvented or can incorporate vents. These can either be hit and-miss manually controlled trickle vents, automatic humidity controlled vents or high powered extraction ventilation (Powervent: Details listed in Table 2.)

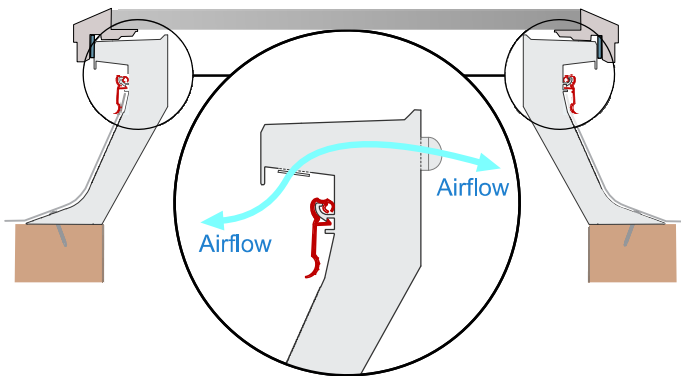


Table 2
Ventilation Options

Ventilation Type	Description	Rating
Trickle Ventilation (Hit-and-Miss)	Manually operated trickle ventilation provides background ventilation to the interior	Provides 8400m ² Equivalent Area Ventilation
Automatic Humidity Controlled Trickle Ventilation	Humidity controlled trickle ventilation is sensor controlled to open and close in response to room humidity levels	Provides 7822m ² Equivalent Area Ventilation and provides superior protection against condensation
'Powervent' high extraction ventilation	Kerb mounted, electrically powered fans providing excellent extraction rates for a variety of applications	Ventilation levels between 55-880 m ³ /hr depending on number of fans and rooflight size

Surespan Glass Trade can also be opened on concealed hinges using actuators to create a large ventilation area. Opening rooflights can contribute to room ventilation as required by Part F of the Building Regulations.

Table 3
Opening Options

Opening Type	Description	Geometric Ventilation Area	
		Min	Max
Manual Opening (MLD)	Hinged opening rooflight which is operated manually via a worm gear drive with an extension pole	0.300 m ²	0.714 m ²
Powered Opening (PCD/PCR)	Powered hinged opening rooflight with completely concealed operating mechanism. Opened and closed using a control switch or remote control	0.210 m ²	1.176 m ²
Sensor Controlled Powered Opening (PCS)	Powered hinged opening rooflight which includes rain sensors for automatic operation	0.210 m ²	1.176 m ²

Size Restrictions for Opening Options:

Please note that restrictions apply due to size, wind loadings and weight. For powered opening rooflights, size is normally restricted to a maximum of 1800mm x 1800mm (square) and 2400mm x 1500mm (rectangle). Size of the largest manual opening rooflight is restricted to 1200mm x 1200mm.

Roof Applications:

Surespan Glass Trade units are suitable for flat roof applications with a pitch of 2°-15°. 2° is typical for a flat roof. If a roof is less than 20, packers (not supplied) will need to be placed under the kerb of the unit or on the top of a builders upstand to raise to the minimum 2°. This is to prevent water ponding on the glass leading to rapid dirt build up. A minimum of 4° pitch is required for sizes where both the length and width are larger than 1650mm.

Acoustic Performance:

Surespan Glass Trade units achieve a direct airborne sound insulation value of 39db (Rw). This value can be improved further by the fitting of a kerb acoustic pack. The acoustic pack is not available with vented or opening options.

Glazing Options & Transmission Values

The glazing used achieves the following values:

Table 4

Light		Solar Energy	
Transmission	76% - 78%	g-value	0.60 - 0.62
Reflection	12%	Shading coefficient	0.69 - 0.71

Thermal Performance

Part L Building Regulations require a U-value of at least 2.2 W/m²K.

Surespan Glass Trade units achieve a centre pane U-value of 1.1 W/m²K which exceeds requirements of Part L Building Regulations.

Product Accessories

Burglar Bar:

The Surespan Burglar Bar is designed to fit beneath the foot of the kerb to provide additional security where required. It is powder coated in a white finish, and available in all sizes.

General Product Dimensions

Surespan Glass Trade offers differing kerb options depending on project specification.

When the rooflight is to be fitted to an existing upstand, fixed unventilated rooflights can be fitted directly, and opening or ventilated options are supplied complete with an adapter kerb.

Where no upstand exists, Surespan Glass Trade can be supplied with 150mm PVC kerb (for mounting at roof surface level) or 300mm PVC kerb (for mounting below insulation).

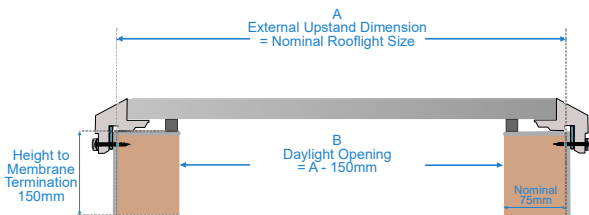


Figure 1: Fixed & Unventilated option directly fitted to builders upstand

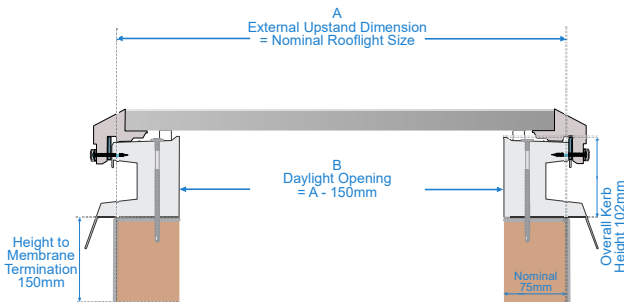


Figure 2: opening / ventilated rooflight on builder upstand

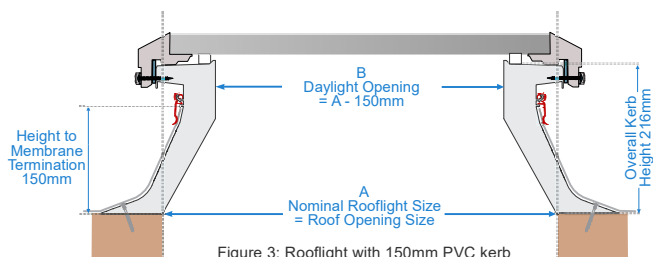


Figure 3: Rooflight with 150mm PVC kerb

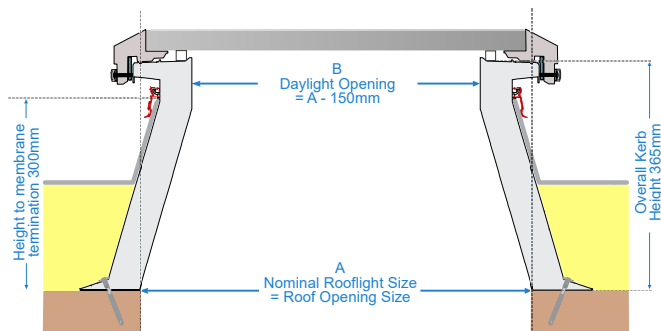


Figure 4: Rooflight with 300mm PVC kerb

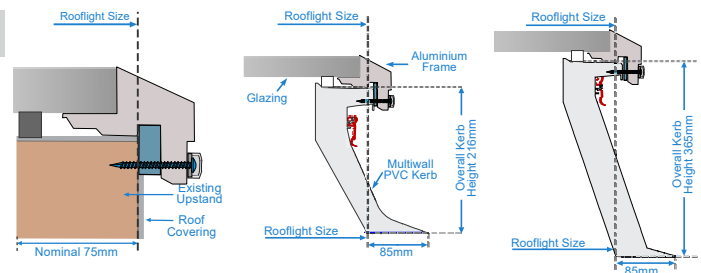


Figure 5: rooflight with builders upstand detail

Figure 6: rooflight with 150mm PVC kerb detail

Figure 7: rooflight with 300mm PVC kerb detail

Wind and Snow Load

Surespan Glass Trade has been tested to show that, when correctly fitted in accordance with our instructions, will resist wind loads calculated in accordance with BS EN 1991-1-4: 2005, and imposed loads in accordance with BS EN 1873: 2005 as shown in Table 5.

Table 5

Resistance to Snow and Wind Loads (figures in excess)

Snow Load (N.m ²)	Wind Load (N.m ²)
1200	2400

Table 6
Product Overall Height & Weight

Description	Nominal Dome Size (mm)	Builders upstand		Sloped Kerb		300mm Kerb	
		H(mm)	W ² (Kg)	H(mm)	W ² (Kg)	H(mm)	W ² (Kg)
Fixed Unvented Glass Trade*	Min 600 x 600	82	17.4	257	25.3	406	24.8
	Max 3600 x 1650	82	263.5	257	-	406	-
Opening Glass Trade* (when closed)	Min 600 x 600	82	24.6	257	27.6	406	30.0
	Max 2400 x 1500	82	182.6	257	191.0	406	198.2

* Contact Surespan for weights of unit sizes not listed

#Product weights above exclude packaging weights

Installation, Handling, Maintenance & Storage

Full installation details, maintenance and product care details, can be found in the relevant Technical Bulletins.

Table 7
Technical Bulletins

Technical Bulletin	Technical Bulletin Description
TB209	Datasheet Surespan Glass Product Care
TB400	Installation Surespan Glass Trade Fixed
TB401	Installation Surespan Glass Trade Powered Opening
TB402	Installation Surespan Glass Trade Manual Opening