



signature
ROOFLIGHTS

TM

**Fill your home and
living spaces with
natural light**



Flatglass Rooflights



MAKING THE MOST OF DAYLIGHT

The Signature range of contemporary Flatglass rooflights combines the simplicity and convenience of modular rooflights, with the style, practicality and improved light transmission of glass.

By making the most of daylight with our market-leading Flatglass range, you will be saving energy, reducing carbon emissions and creating a general sense of well-being in the home, office and commercial spaces.

Available as standard or bespoke units, they complement any setting by combining outstanding performance, quick and easy installation and with the benefit of being fully compliant with UK Building Regulations.

They are an ideal solution for both commercial and residential applications and have been used to great effect on everything from major landmarks to schools, colleges, hospitals, commercial offices and private homes.

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EASY CLEANING SYSTEM NOW AVAILABLE: RITEC CLEARSHIELD ECO-GLASS™

By their very nature rooflights and skylights can be hard to reach and clean. The ClearShield system provides a solution to greatly reduce the need for cleaning.

All Signature rooflight products can be supplied with ClearShield Eco-Glass.™

- Maintains glass clarity, all-round visibility and cleanliness
- Reduces cleaning time, effort and frequency
- Keeps windows looking like new and sparkling, staying clean for longer
- Resists glass staining and contamination: tree sap, bird droppings, traffic pollution, general dirt
- Helps to maintain your Window Energy Rating



THE BENEFITS OF DAYLIGHT TRANSFORMING YOUR HOME OR WORKSPACE

ROOFLIGHTS SAVE ENERGY AND REDUCE CARBON EMISSIONS

The primary reason for including rooflights is to provide a bright, naturally-lit interior and reduce the requirement for artificial lighting. Daylight has many advantages over artificial light; not least the fact that it is a free and unlimited natural resource.

While artificial light is essential, it uses a lot of energy. Reducing its requirement dramatically lowers energy use, and the CO₂ emissions resulting from this.

There has previously been a widely held view that rooflights have a poorer insulation value, allowing more heat to escape the building than the rest of the roof structure and increasing running costs.

Recent research has proved that this view is no longer accurate, as modern rooflight design has resulted in significant improvements in insulation values.

The design parameters of a building will affect the impact that a rooflight area has on its total energy requirements for heating, cooling, artificial lighting, etc.

The savings in total energy costs and carbon footprint therefore vary from building to building, but have been found to be more positive as rooflight area increases, often up to 20% of the roof area.



ROOFLIGHTS PROVIDE HEALTHIER AND MORE FUNCTIONAL INTERNAL ENVIRONMENTS

Daylight is an essential natural asset. For those of us living in temperate Northern climates, the beneficial effect of sunlight is easy to recognise; a couple of sunny days seem to lift everyone's spirits.

There is also a growing body of evidence to suggest that office buildings enjoying higher levels of natural light are more successful than those more reliant on artificial light.

In all environments, eye and brain functions respond better to natural light, so people will ultimately perform better.

Natural daylight promotes a sense of well-being amongst building occupants and rooflights achieve this without the potential distractions created by views through vertical windows.

Where vertical windows are not installed, rooflights provide occupants with beneficial natural daylight contact.



ROOFLIGHTS CAN PROVIDE SPECIFIC BENEFITS IN A WIDE RANGE OF APPLICATIONS

Education

Research demonstrates a clear correlation between classrooms with natural light ingress and improved student performance. Children concentrate better in natural light, so they are more focused and less easily distracted.

Studies also suggest that health is enhanced, helping to improve attendance. Further specific information about lighting design for schools is contained in the Government's Building Bulletin 90.

Health

In the UK we are used to hearing about Seasonal Affective Disorder, or SAD as it is often referred to. This is a clinically diagnosed condition where the lack of sunlight in winter makes people feel unwell.

Natural light helps people to feel better and can also aid the healing process. In hospitals, studies have proven that the recovery rate of patients is accelerated where levels of natural light are increased.

Business & Retail

Daylight improves concentration, leading to increased productivity in factories and offices. Studies of retail environments suggest that, in the vast majority of cases, sales are higher in naturally-lit locations.

Colours are vivid and true, making goods appear more attractive, encouraging customers to spend more time and money in these stores. The UK's leading retail organisations now make sure to specify rooflights for their stores.

Recreation

People like bright, naturally-lit environments, which is evidenced by the popularity of domestic conservatories and sunrooms.

It is therefore logical that, in their leisure time, people prefer facilities that enjoy high levels of natural daylight. Sporting and recreational facilities will always try to maximise their natural daylight levels in recognition of this fact.

DAYLIGHT IDEAS AND OPPORTUNITIES

1. Opening rooflights can provide natural ventilation, roof access or automatic smoke ventilation
2. Walk-on rooflights make a great feature for buildings with roof terraces and basements
3. Multi-section Flatglass rooflights are ideal for providing natural daylight in linear applications



Fixed Flatglass

An aesthetically-pleasing and effective daylighting solution



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www.sterlingbuild.co.uk



U-value
1.1
W/m²K*



Our leading rooflight design means that daylight is maximised while the visible framework is minimised, resulting in a product that offers the best in both form and function.

Maximum standard external kerb sizes (double glazed)

- Square: up to 1900mm x 1900mm or 3.6m² as standard, larger sizes available via special order
- Rectangular: up to 5m² (toughened glass) as standard, up to 9m² (via special order)
- Circular: up to 2.2m diameter for single pane, up to 3.2m diameter for multi-section
- Please note: Minimum kerb size is 500mm x 500mm

Maximum standard external kerb sizes (triple glazed)

- Square: up to 1900mm x 1900mm
- Rectangular: up to 5m² as standard
- Circular: up to 2200mm diameter (single pane)
- Please note: Minimum kerb size is 500mm x 500mm

Standard glass specification

For stock sizes of Fixed Flatglass rooflights, our standard glass specification is as follows: 6mm clear glass heat soak tested toughened outer pane, with a 20mm argon filled (90%) cavity plus warm edge spacer and a 6mm clear glass Low-E heat soak tested toughened inner pane, all UV resistant silicone bonded

Options

- Recommended minimum pitch of 5° up to a 2m span, and 10° over a 2m span to shed water
- We can supply bespoke glass specifications to meet your project requirements, including body tinted, obscure, acoustic, laminated, krypton filled (90%) cavity and solar control options
- Bespoke shapes and sizes available (see page 15)



Secured by Design options available on this product

*Centre pane U-value with standard glass specification as detailed on this page



Hinged Flatglass

Daylight plus natural ventilation
- manual and electric options



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Signature's range of Hinged Flatglass rooflights provide you with all the benefits of natural daylight that our Fixed Flatglass units offer, but with the added bonus of natural ventilation.

Maximum standard external kerb sizes (electric hinged)

24v operation as standard. 230v available as an option
Square: up to 1850mm x 1850mm
Rectangular: up to 1200mm x 2700mm or 3.25m²
For sizes over 3.25m², please contact Sterlingbuild
Larger sizes require multiple, synchronised actuators and specialist refurb planning
Please note: Minimum kerb span is 500mm

Maximum standard external kerb sizes (manual hinged)

Square: up to 1850mm x 1850mm
Rectangular: up to 1200mm x 2700mm or 3.25m²
A double spindle is required for units over 1400mm long

Standard glass specification

For stock sizes of Hinged Flatglass rooflights, our standard glass specification is as follows: 6mm clear glass heat soak tested toughened outer pane, with a 20mm argon filled (90%) cavity plus warm edge spacer and a 6mm clear glass Low-E heat soak tested toughened inner pane, all UV resistant silicone bonded

Options

Choice of switches, wind, rain and temperature sensors (electric)
Remote control option also available (electric)
Synchronised multi-rooflight opening mechanism (electric)
Adjustable opening pole available, up to 3m (manual)
We can supply bespoke glass specifications to meet your project requirements, including body tinted, obscure, acoustic, laminated, krypton filled (90%) cavity and solar control options (see page 15)



*Centre pane U-value with standard glass specification as detailed on this page

Please note that Flatglass rooflights can be installed flat, but to avoid water pooling we recommend a minimum pitch of 5°

For more detailed specification information please visit
www.sterlingbuild.co.uk or call us on 01303 258641.

Walk-on Flatglass

Combining natural daylight with creative use of space



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Flatglass rooflights can be supplied to walk-on specification by Sterlingbuild for external areas, such as roof terraces, as well as internal applications. They provide an attractive and creative solution for introducing daylight into areas of a building that would otherwise be dark (i.e. basements and cellars).

Available in a range of standard external kerb sizes:

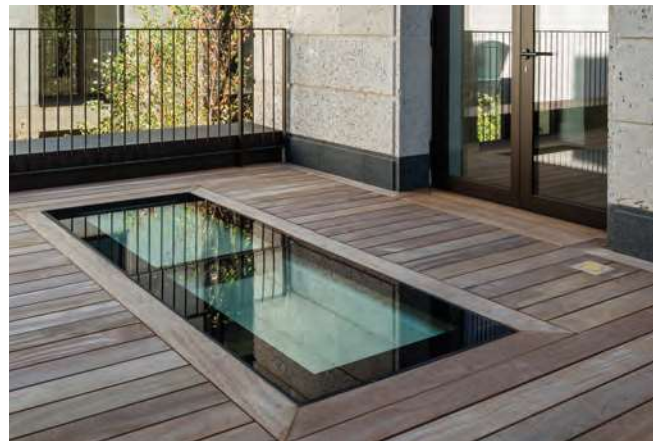
- Single pane: up to 1.5m x 3m or 4.5m², larger sizes via special order
- Multi-section: up to 2.5m slope span, greater spans can be accommodated via special order
- Unlimited length with bays at up to 1.2m centres
- Please note: Minimum kerb size is 500mm x 500mm

Standard glass specification (domestic applications)

For stock sizes of Walk-on Flatglass rooflights, our standard glass specification is as follows: 33mm clear glass heat soak tested toughened laminated outer pane; 16mm argon filled (90%) cavity plus warm edge spacer; 6mm clear glass Low-E heat soak tested toughened inner pane, all UV resistant silicone bonded, designed to accommodate domestic loadings (Class 0 Non-fragile, see page 20 for full loading details)

Options

- Black painted border as standard (other RAL colours available)
- Single or multi-section construction
- Laminated inner pane
- Anti-slip finishes available, recommended for external applications
- Designed to BS EN 1991-1-1 2002 UK Annex. Loads to be agreed with client/structural engineer
- We can supply bespoke glass specifications to meet your project requirements, including body tinted, obscure, acoustic, laminated, krypton filled (90%) cavity and solar control options (see page 15)



*Centre pane U-value with standard glass specification as detailed on this page



Sliding Flatglass

For ventilation or roof access



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Operated by concealed 24v electric chain link actuators, Signature's Sliding Flatglass rooflights are ideal for providing natural ventilation and roof access, especially in areas where high wind loadings may occur, making a hinged rooflight unsuitable.

Available in a range of standard external kerb sizes:

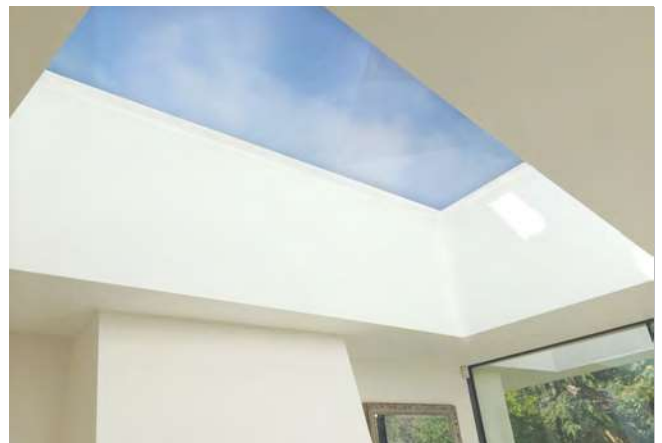
- Square: from 800mm x 800mm up to (and including) 1200mm x 1200mm
- Rectangular: from 800mm x 900mm up to (and including) 1200mm x 2000mm
- Please note: Minimum kerb span is 800mm, Max. pitch is 5°

Standard glass specification

For stock sizes of Sliding Flatglass rooflights, our standard glass specification is as follows: 6mm clear glass heat soak tested toughened outer pane with a 20mm argon filled (90%) cavity plus warm edge spacer and a 6mm clear glass Low-E heat soak tested toughened inner pane, all UV resistant silicone bonded

Options

- Choice of switches, wind, rain and temperature sensors
- Remote control option available
- Synchronised multi-rooflight opening mechanism
- We can supply bespoke glass specifications to meet your project requirements, including body tinted, obscure, acoustic, laminated, krypton filled (90%) cavity and solar control options (see page 15)



*Centre pane U-value with standard glass specification as detailed on this page

Please note that Flatglass rooflights can be installed flat, but to avoid water pooling we recommend a minimum pitch of 5°

For more detailed specification information please visit www.sterlingbuild.co.uk or call us on 01303 258641.

AOV Smoke Vent Flatglass

Achieves BS EN 12101-2 compliance



A recent addition to our range, the Flatglass AOV Smoke Vent provides an aesthetically-pleasing solution without compromising on the health and safety of the building's occupants. The window complies with BS EN 12101-2 regulations for natural smoke and heat exhaust ventilation and comes in two standard sizes.

Available in the following sizes:

The Flatglass AOV Smoke Vent comes in two standard sizes, which achieve an Aerodynamic Free Area of 1.0m² and 1.5m². Powered by two 24v concealed folding arm actuators

Standard glass specification

For stock sizes of AOV Smoked Vent Flatglass rooflights, our standard glass specification is as follows: 6mm clear glass heat soak tested toughened outer pane, with a 20mm argon filled (90%) cavity plus warm edge spacer and a 6mm clear glass Low-E heat soak tested toughened inner pane, all UV resistant silicone bonded

Options

We can supply bespoke glass specifications to meet your project requirements, including body tinted, obscure, acoustic, laminated, krypton filled (90%) cavity and solar control options (see page 15)

Ritec ClearShield Eco-Glass™ easy-clean coating

Specialist AOV control unit, 230v transformer, battery back-up

Installation recommendations

Min. 150mm high x 75mm thick structurally sound kerb, not by Sterlingbuild
Maximum pitch of 5°



*Centre pane U-value with standard glass specification as detailed on this page



Access Flatglass

Safe, secure access to roof areas



Electric Access

Our Electric Flatglass Access Hatches are double glazed as standard. Powered by two 24v actuators, these units can open up to 90° for excellent ventilation and ease of access to roof areas. Supplied with a Vent-6 control panel as standard for daily access.

Electric Access Hatches are available in the following sizes:

Square: from 850mm x 850mm up to 1600mm x 1600mm
Rectangular: up to 1200mm x 3000mm
or 1700mm (motor side) x 1500mm

Standard glass specification

Our standard glass specification is as follows: 6mm clear glass heat soak tested toughened outer pane; 20mm argon filled (90%) cavity plus warm edge spacer; 6mm clear glass Low-E heat soak tested toughened inner pane, all UV resistant silicone bonded

Options

Control unit with battery back-up available
Choice of switches, wind, rain and temperature sensors
Synchronised opening mechanism
Override switch, daily vent switch
We can supply bespoke glass specifications to meet your project requirements, including body tinted, obscure, acoustic, laminated, krypton filled (90%) cavity and solar control options (see page 15)



Manual Access

Our Manual Flatglass Access Hatch rooflights are also double glazed as standard. Featuring fully-concealed gas rams, these units are able to open up to 75° and are often installed to allow regular access to roof terraces via internal staircases, which opens up new development possibilities. They are also frequently specified to provide access to roof areas for maintenance.

Manual Access Hatches are available in the following sizes:

Square: up to 1200mm x 1200mm
Rectangular: up to 900mm x 1500mm

Standard glass specification

Our standard glass specification is as follows: 4mm clear glass heat soak tested toughened outer pane; 24mm argon filled (90%) cavity plus warm edge spacer; 4mm clear glass Low-E heat soak tested toughened inner pane, all UV resistant silicone bonded

Security

Yale shoot bolt locking mechanism

Options

We can supply bespoke glass specifications to meet your project requirements, including body tinted, obscure, acoustic, krypton filled (90%) cavity and solar control options (see page 15)

*Centre pane U-value with standard glass specification as detailed on this page

Multi-section Flatglass

Larger rooflights, more daylight



Where larger rooflights are required, over and above the maximum size for a single pane of glass, we can supply Multi-section Flatglass rooflights. These provide the same characteristics and sleek, aesthetically-pleasing profile as the single pane Flatglass units that we offer.

Standard glass specification

Our standard glass specification is as follows: 6mm clear glass heat soak tested toughened outer pane, with a 20mm argon filled (90%) cavity plus warm edge spacer and a 6mm clear glass Low-E heat soak tested toughened inner pane, all UV resistant silicone bonded

Please note: Maximum kerb span is 3.2m as standard, larger spans can be accommodated via special order

Unlimited lengths are available

Options

Double or triple glazed units

Walk-on specification glass available up to a 2.5m span

Integrated 24v or 230v electrically-operated opening sections

Wall abutments available on up to three sides

PVCu 'Aero-fi n' shroud for internal glazing bars (can be colour matched to suit)

We can supply bespoke glass specifications to meet your project requirements, including body tinted, obscure, acoustic, laminated, krypton filled (90%) cavity and solar control options (see page 15)



*Centre pane U-value with standard glass specification as detailed on this page

Bespoke Flatglass

Made to measure rooflights



In addition to Signature's standard Flatglass range, we can supply you with Bespoke Flatglass rooflights in almost any shape and size, with various glazing options available to suit your project requirements.

Applications

Flatglass rooflights can be designed to fit irregular roof areas and also for aesthetic purposes

Glazing can be specified to meet your exact requirements, please feel free to contact us to discuss your project needs

Options

Double or triple glazed units

We can supply bespoke glass specifications to meet your project requirements, including body tinted, obscure, acoustic, laminated, Low-E, krypton filled (90%) cavity and solar control options

Wall abutting rooflight designs are possible on one, two or three sides

Walk-on rooflight options are available for both internal and external applications

We can supply Flatglass rooflights in accordance with CWCT TN 66 & 67 Class 1, Class 2 or ACR[M]001:2014 Class B

Sterlingbuild can supply Secured by Design and Part Q compliant rooflight solutions



SPECIFICATION AND INSTALLATION INFORMATION

The following information provides guidance on the specification and installation of Signature Flatglass rooflights. For further guidance please contact us on 01303 258641 or email sales@sterlingbuild.co.uk



U-values

Standard double glazed units: As low as $1.4\text{W/m}^2\text{k}$
 Standard triple glazed units: As low as $1.1\text{W/m}^2\text{k}$
 These standard U-values are compliant with Approved Document Part L
 Area weighted U values are size dependent
 Other U-values are available to special order

G-values

Standard double glazed units: 0.63
 Standard triple glazed units: 0.57
 A wide range of high-performance solar control glass options to improve the G-value are available to meet your project requirements

Light transmission

Standard double glazed units: 78%
 Other performance levels are available to special order

Glass specification (Non Walk-on)

Glass thickness and types vary dependent on the rooflight size, location and application
 Stock Flatglass rooflights (Non Walk-on glass spec):
 Outer: 6mm clear heat soaked tested toughened
 Cavity: 20mm argon filled (90%) plus warm edge spacer
 Inner: 6mm clear Low-E heat soaked tested toughened
 Other available glass types include laminated glass with either PVB or Ionomer interlayers

Glass specification (Walk-on)

Glass thickness and types vary dependent on the rooflight size and application
 Stock Flatglass rooflights (Walk-on glass spec):
 Outer: 33mm toughened laminated
 Cavity: 16mm argon filled (90%) plus warm edge spacer
 Inner: 6mm clear Low-E heat soak tested toughened
 Design loads: 1.5 kN/m^2 (uniform) / 2.0 kN (concentrated)
 This stock glass spec is designed to meet BS EN 1991-1-1 2002 UK Annex and is intended for domestic applications. Please contact us for bespoke loading requirements

Glazing frame

Glazing elements are contained within a thermally-enhanced, extruded aluminium frame, to current British and European Standards (BS EN 12020-2:2008 & BS EN 755:2008)
 Glazing frames are polyester powder coated to BS 6496 and BS EN 12206-1:2004
 Standard RAL Colours: Anthracite Grey (7016), Black (9005), White (9010), supplied at 77% gloss
 Bespoke colours are available on request, but may incur additional costs and longer lead times

Glass borders

Standard Flatglass rooflights: Sandblast border
 Walk-on Flatglass rooflights: Black ceramic fit
 All Flatglass units incorporate a border to obscure the rooflight framework when viewed from the outside
 Bespoke border options are available to special order

Weathertightness certification

Flatglass rooflights have been independently tested to comply with the following classifications:

Test	Standard	Classification/declared value
Air permeability	CWCT	A4
Watertightness	CWCT	R7
Wind resistance	CWCT	± 800 pascals serviceability ± 1200 pascals safety

Non-fragility

The Signature flatglass rooflights can be supplied in accordance with CWCT TN 66 & 67 Class 1, Class 2 or ACRIMJ001:2014 Class B
 Please consult our Technical Department for more information

Installation

Roofglaze's Flatglass rooflights are suitable for use with all popular roof finishes
 They can be installed on timber, concrete, steel or PVCu kerbs

Kerb / upstand requirements

Please see the diagrams on page 21 for more details

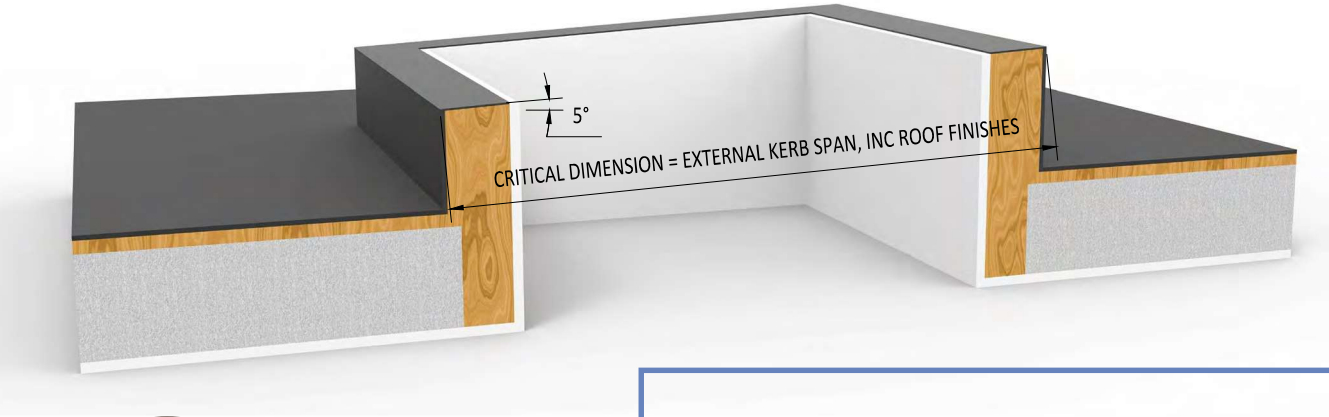
Critical dimensions

When fitting to a builder's kerb, all dimensions provided should be external kerb dimensions (when weathered)
 Please see the diagrams on page 21 for more details

Key specification considerations

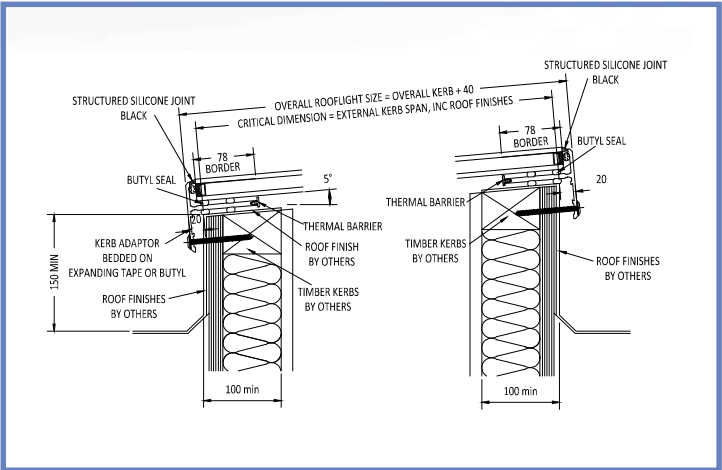
Size	Glass specifications
Ventilation	Loadings
Daylight	U-values
Access	G-values
Acoustic requirements	Colour (RAL)
Location (marine, industrial, height from FFL, shaded areas, wind speeds, etc.)	Site access
	Pitch of kerb
	Wall abutments

Signature Flatglass Rooflights



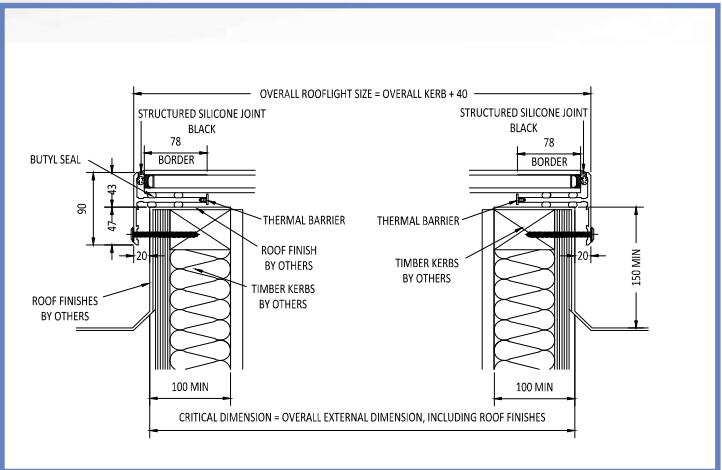
Design Considerations:

An adequate minimum pitch is required to aid water run off (5° is recommended). This will help prevent water ponding and dirt build-up. Larger units may require greater pitches.



Critical Dimensions:

Confirm overall external kerb dimensions, including roof finishes.





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