

### A thermally broken rooflight system.

Developed in house by IQ Glass using our years of experience in structural glazing. The Invisio system is a structural glass system with thermally broken fixing details. It is suitable for all structural glazing applications and offers unparalleled thermal insulation whilst maintaining the key frameless glass design of structural glazing.

#### **Glass**

Typical Glass Spec 8mm TXD outer, 16mm argon gas cavity with warm edge spacer bar, 2x6mm TXD laminated inner with low e coating  
Glass Edge flush / stepped  
Typical Ug Value 1.1 W/m<sup>2</sup>K  
Glass Thickness up to 37.5mm

#### **Frame**

Profile Specification aluminium profile with full polyamide thermal break  
Profile Size 102mm long x 95mm tall (designed to be hidden by building finishes)  
Roof Falls from 00 to 450  
Max. Size dependant on glass weight.  
Recommended max size per unit 1.5m x 3m

**Shapes** square or rectangular, other shapes available on request

#### **Finishes**

Standard Colours PPC RAL 7016 / 9005  
Dual Colour PPC 9016 internal finish available on request  
Other Colours available PPC any other RAL colour on request

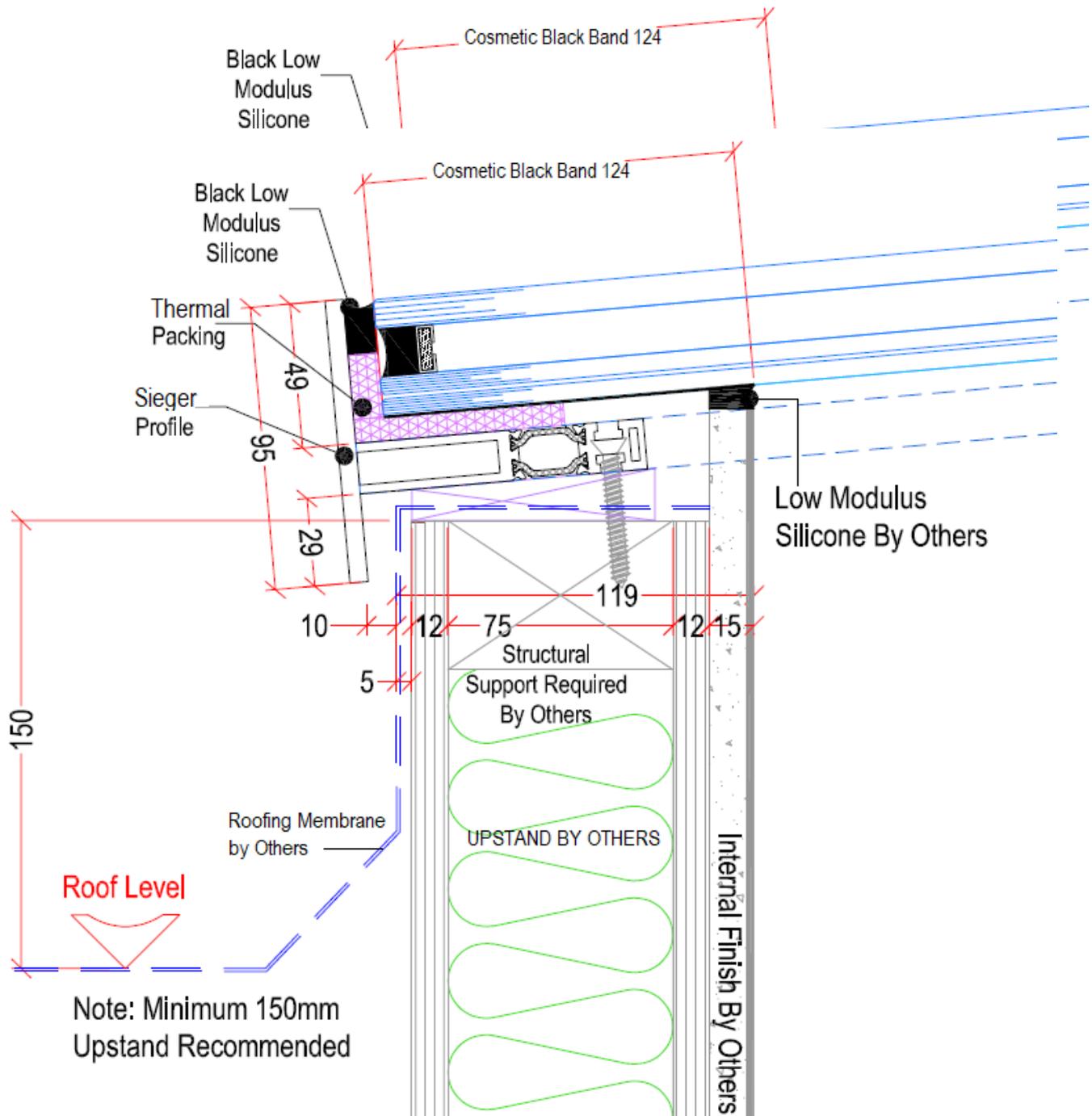
#### **Performance**

Thermal Insulation Uw 1.2 W/m<sup>2</sup>K\*  
Recommended Max Snow Load 1.26 KN/m<sup>2</sup> (for flat rooflight / 2.02 KN/m<sup>2</sup> (for 450 fall rooflight)  
\*example Uw based on reference test on rooflight 1.23m x 1.48m with Ug value 1.141 W/m<sup>2</sup>K

## Typical Framing Sections

### FLUSH GLASS FINISH

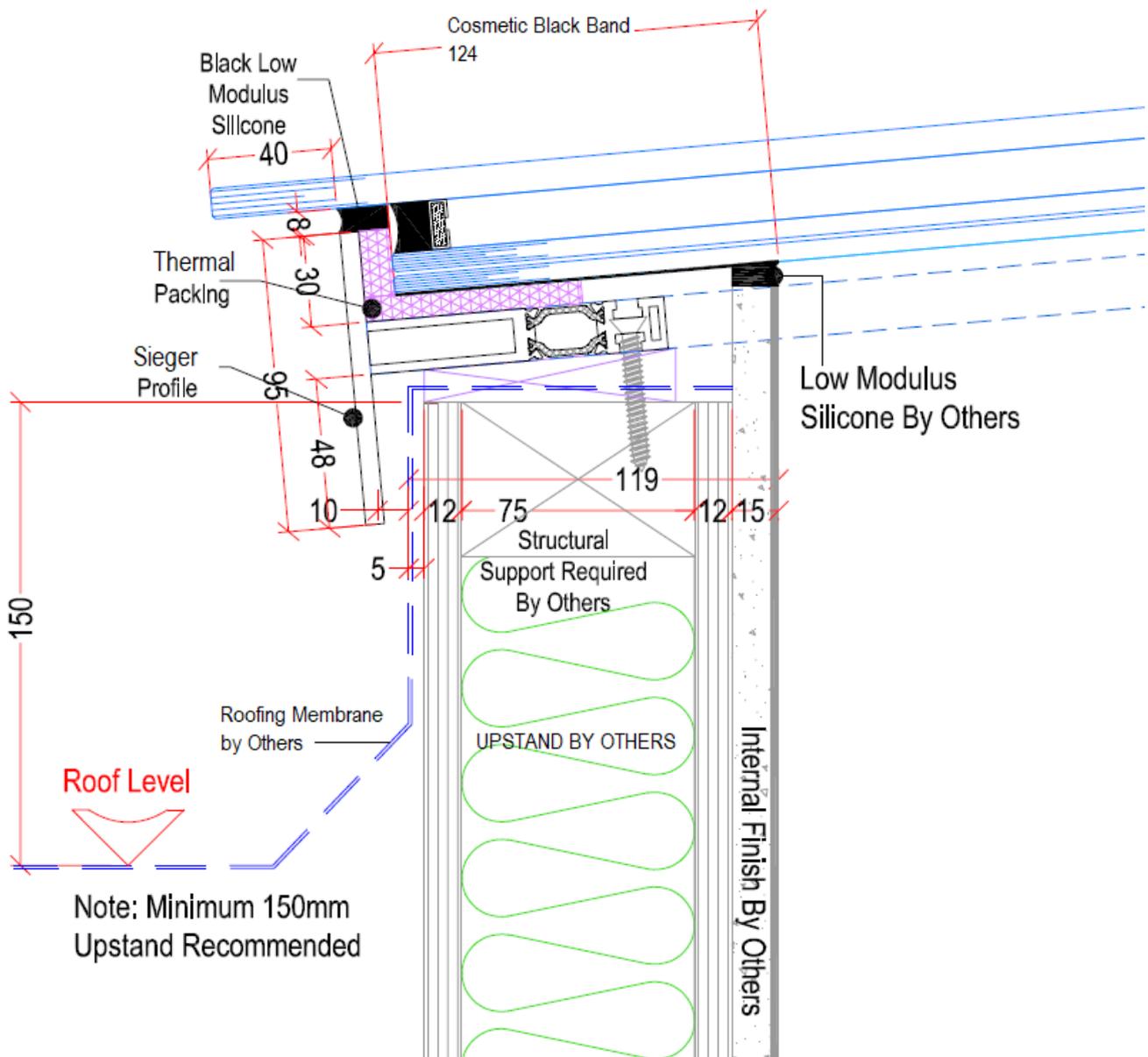
For rooflights with a flush glass finish externally



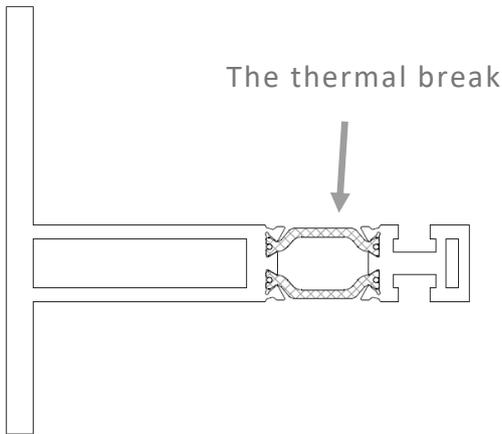
## Typical Framing Sections

### STEPPED GLASS FINISH

For rooflights with a stepped glass finish externally



## Thermal Modelling



### THE THERMALLY BROKEN PROFILE

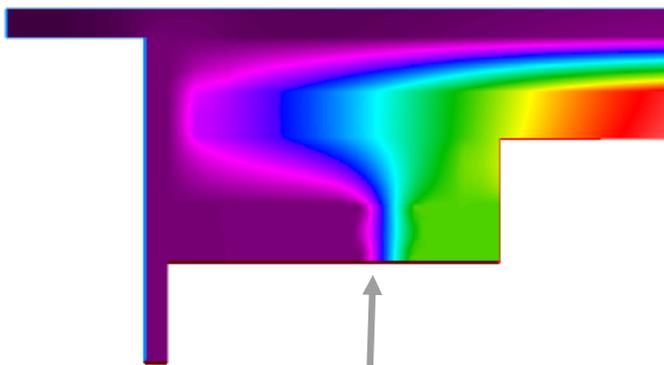
With full, rolled polyamide thermal break in all sections.

Key:



### Invisio Thermally Broken Roof Profile

Based on Invisio Rooflight Profile with Stepped DGU,  $U_g$  1.1 W/m<sup>2</sup>K

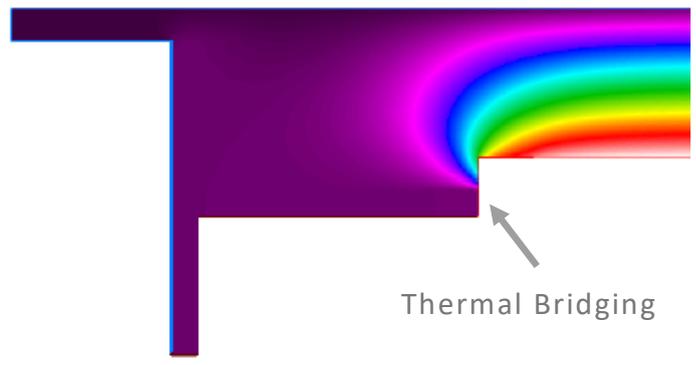


The thermal break stops any cold bridging

The thermal model highlights the performance of the thermal break, fully thermally separating the internal and external elements of the building

### Non-Thermally Broken Profile

Based on typical structural glass fixing angle with Stepped DGU,  $U_g$  1.1 W/m<sup>2</sup>K



Thermal Bridging

The thermal model shows significant thermal bridging resulting in cold internal surfaces and a reduction in thermal insulation.

## Glass Joints

### Glass to Glass Joints

If the span of the glass and fall allows for it, the rooflight system can be used with glass to glass, silicone jointed panels. Each glazed unit can be structurally sealed together using structural silicone.

A quick calculation will indicate whether your multi-pane rooflight can be silicone jointed or if additional internal supports will be required.

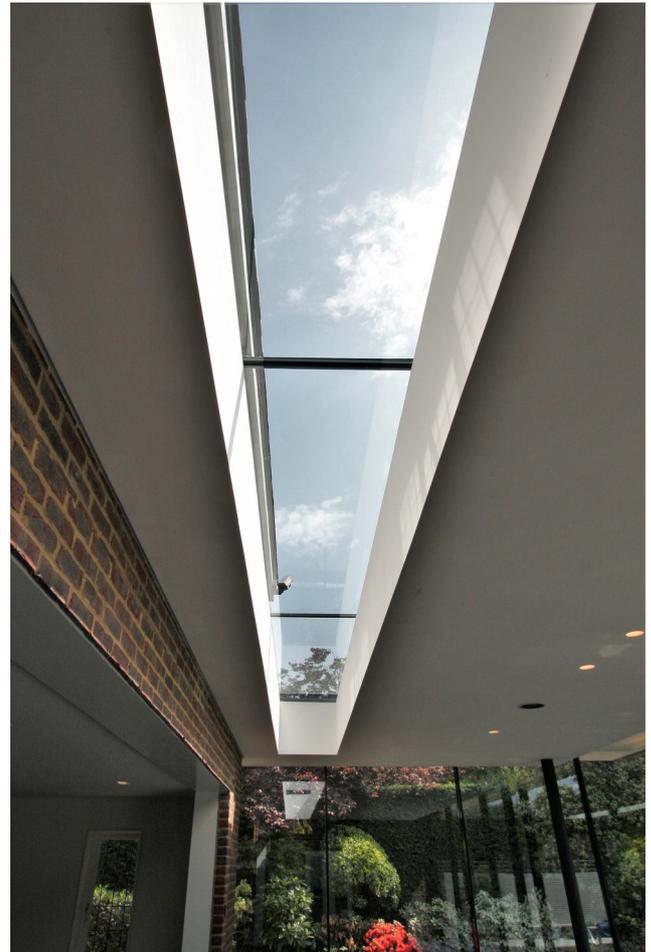
As a rule of thumb any glass joint over 1.2m will need looking at to see if a glass joint support is needed.

### Glass Beams

If a glass support is needed a glass beam offers an all glass finish. The multi laminated pane sits below the glass joint and supports the inner side. Your glazier will have to design a glass beam fixing detail to connect the beam to your structure.

### Steel Sections

Slim steel T or box sections can also be used below the silicone joint to offer support. Your glazier will need to look at the glass weight, span and fall to determine the size of the steel supports required.



## Safety and Roof Glazing

### Txd lam to internal face

We always recommend a toughened and laminated pane to the internal face of overhead glazing (this includes roof glazing).

The toughened and laminated pane ensures that should any of the glass panes within the roof glazing fail or break no glass falls internally. The laminate within the inner pane holds the glass together and in place.

### MAINTENANCE LOADING

Our recommended glass specifications allow for a basic maintenance load to be applied to the glass roof. This allows access over the glass roof for cleaning, access or other maintenance.



### How to Specify Invisio from IQ Glass

The Invisio structural glazing system is exclusive to IQ Glass and was developed in house to provide specifiers with high performing, thermally broken structural glass solutions, suitable for the most exclusive of projects.

Thanks to the full thermal break within the unique fixing details, the Invisio structural glass system can achieve expectational levels of thermal insulation without the inherent thermal bridging effect of normal structural glass installations.

#### Speak to the team at IQ

The team at IQ are the experts in our product range. If you are considering using the Invisio system on your project speak to the team at IQ who will be able to start our in house engineering service. We can also advise you on the best solution for your intended design, ensure that all specification criteria are met and advise the feasibility to areas of the installation you may not have considered.

#### Get a Quotation

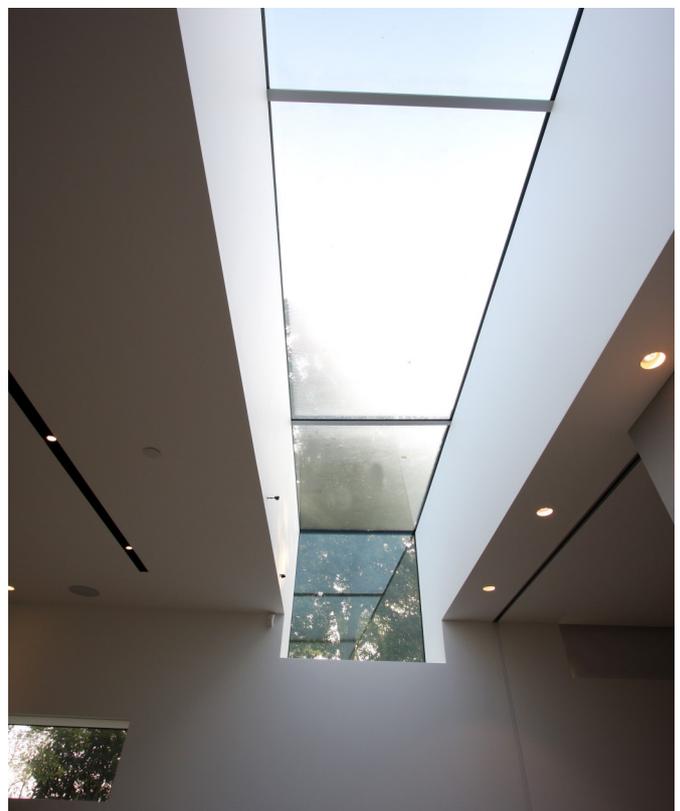
As part of our engineering service we will create a quotation for the works in question.. This allows us all to ensure that the proposed design is within budget. If it is not we can help you adjust the specification to reach all performance, design and budgetary requirements.

#### Add us to your NBS Specification

To assist you in specification we have created individual NBS Specification sheets for our systems. These, easy to navigate, documents contain all the vital information needed for specification. They are available for you to complete on your own, alternatively ask your sales representative at IQ to complete this on your behalf

#### Place the Order

When ready you (or your client or the builder) can then place the order for your architectural glazing with us. A full in-house handover will take place and your project will be passed to the contracts and



### How to Specify Invisio from IQ Glass

design team. Once your project deposit is placed we will then undertake full detailed design drawings for the installation and any other additional glazing works. Please allow at least 20 working days for the design process.

The project will be appointed a dedicated contracts manager who will oversee the installation process. The estimated production lead time for Invisio structural glazing system is 6 to 8 weeks depending on application and glass specification chosen. This may be longer for specialist installations. This will be confirmed on order.

#### Where can I see the Invisio System before order?

We have several Invisio installations available to view at our showroom in Amersham. These structural glazing installations have been installed in a purpose built structure, exposed to the environment and used on a day to day basis. This will enable you to see what the Invisio system looks like in situ and the various applications in which it can be used.

If you or your clients would like to see the Invisio system in person just contact us and arrange an appointment at the showroom.

