

## Glass Specification

---

There are many things to consider when selecting the glass for your bespoke Blade.

Will your rooflight be in a shaded or sunny position? How important is thermal performance to you? Or is price more of a consideration? Are you worried about excess noise? Or perhaps concerned about security? We have options to address all your needs.



### Thermal Option

Offset offers the Blade in two thermal standards, both of which fully comply with and surpass UK building regulations. The Blade comes with our Double-A silicone-sealed glazing unit as standard. This is an extremely thermally efficient unit that is fully compliant with UK building regulations (see below for information on U-values). The Double-A consists of two panes of heat-soaked glass with argon gas injected between the panes. Double-A glazing achieves a centre pane Ug value of 1 w/m<sup>2</sup>k and an overall 'combined product' Ud value from just 1.1 w/m<sup>2</sup>k (see "u-Values simplified" section below to see what this means).

Or choose our super-insulated Triple-K glazing option. Three layers of glass with krypton gas injected between the panes. This achieves a centre pane Ug value of 0.4 w/m<sup>2</sup>k and an overall 'combined product' Ud value from 0.8 w/m<sup>2</sup>k. Triple glazed units are not necessarily the best option in our temperate European climate when you allow for solar gain.



### Solar Option

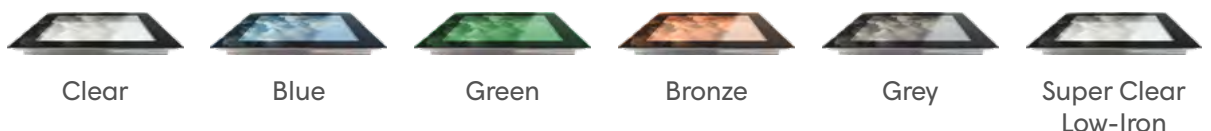
If your rooflight location is prone to a lot of direct sunlight during the day it might be wise to choose 'solar control' glass. This will help reflect away excess heat from your habitable space and minimise furniture or picture fade.



### Colour Options

You can change the aesthetics of the glass with one of our four beautiful tints. These tints will also aid with keeping rooms cool and reducing the sun's glare. Standard clear glass is very popular but the tints give you an attractive alternative.

If you are in an area of very low-light, we can supply a 'super clear low-iron' glass which maximises light inflow by eliminating all traces of the 'green' tint that occurs naturally in most glass. This can be especially helpful with triple-glazed skylights.





## Noise Reduction

Our rooflights are naturally extremely quiet as they are supplied as standard with up to 10mm of toughened top pane of glass which is very sound insulating and incredibly strong.

However, if you are still worried about noise, you can add the option of a 12.8mm laminated 'acoustic' bottom pane (8.8mm on our Triple-K units) that provides the ultimate sound insulation.



## High Security

If you have concerns about security then upgrade to our 12.8mm extra high security laminated glass. This differs from other companies' laminated security glass as we incorporate two panes of 6mm 'toughened' glass with a PVB sandwiched interlayer of 0.8mm. All other manufacturers pair two sheets of much thinner 3+3mm or 4+4mm annealed glass to create their laminated glass, a combination that is more prone to heat stress fractures and cracking. On our Triple-K units, the laminated inner pane is 8.8mm thick.

Our toughened laminated glass is pretty much as strong as money can buy with virtually no risk of cracking. The likelihood of a burglar breaking through it is just about impossible.

As standard, all our glass goes through a process of 'heat soak testing' which helps to prevent 'spontaneous breakage', another surprisingly common problem with lower grade insulated glass units.

## Glass Values

	Double Glazed Soft Coat Argon 10-20-6	Triple Glazed Double Soft Coat Krypton 10-12-6-12-6	Double Glazed Soft Coat Argon 12.8 Tough/lam Security	Triple Glazed Double Soft Coat Krypton 8.8 Tough/lam Security	Double Glazed Soft Coat Argon 12.8 Tough/lam Acoustic	Triple Glazed Double Soft Coat Krypton 8.8 Tough/lam Acoustic
Centre Pane U-Value	1.0 w/m <sup>2</sup> k	0.4 w/m <sup>2</sup> k	1.0 w/m <sup>2</sup> k	0.4 w/m <sup>2</sup> k	1.0 w/m <sup>2</sup> k	0.4 w/m <sup>2</sup> k
Solar Gain as a %	54%	44%	54%	44%	54%	44%
Sound Dampening	-39 db	-42 db	-44 db	-44 db	-49 db	-49 db

If solar control glass is specified the g-value (solar gain) will drop down to 39% for double glazed and 34% for triple glazed. Please note that solar gain can be a plus in cooler periods due to the harvesting of free heat from the sun. Thus triple glazed insulated glass units are not necessarily the best option for British weather.

## Light Transmission

	Clear	Clear Low-Iron	Clear Solar Control	Blue Tint	Green Tint	Bronze Tint	Grey Tint
Light Transmission as a %	78%	91%	68%	46%	65%	42%	38%
Solar Heat Reflection as a %	61%	61%	34%	52%	52%	52%	52%

If your rooflight is situated in an area of low light then consider extra clear 'low-iron' glass which will improve light transmission even further at up to 91% and it also helps remove the 'greeny' tint often associated with double and triple glazed roof windows. Low iron glass can only be utilised as a 'clear' glass option.

\*These figures are to be used as a guide, and can vary slightly according to glass specification, rooflight orientation & size.