

# YOUR EXTENDED HOME

SIDE WALL AND ROOF GLAZING





# YOUR HOME

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# YOUR COMFORT

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**Renovating or extending your home is a great way of improving and adding value to your property. Light and open spaces are proven to have a positive impact on health and wellbeing, so glazing is a crucial element of your build design.**

Innovation in today's glass technology means the options are endless. Energy efficient and solar control glass give you a flexible and versatile, light-filled, year round living space.

By helping you understand your glass options, Custom Glass can help you design the perfect usable space. So, whether it's large, glazed windows, bi-fold or sliding doors, skylights or a fully glazed roof, Custom Glass's

range of high-performance glazing is engineered to meet your needs whilst maximising comfort and energy efficiency in your home.





# HOW DOES GLASS AFFECT THE COMFORT OF MY HOME?

Choosing the right glass makes a huge difference to how your home feels. Whether you're looking at retaining internal heat, reducing external noise, maximising sunlight without overheating or damaging furniture, or ensuring your new glazing is easy to maintain, Custom Glass has the perfect high-performance glass for your project.

## KEEPING THE HEAT INSIDE

Our glass options all encompass coatings with varying properties that help stop heat escaping. This means that not only will you use less energy to keep your new room warm but will also retain the heat provided by radiators for example, so that your room remains warm in the winter months.

*See page 13 for more on this topic.*

## REDUCING OVERHEATING

Rooms with lots of glass will give you a great view of the outdoors, but the warmth from natural daylight can make it uncomfortably hot on sunny days. Each of our glazing options has technically advanced solar control coatings designed to limit the amount of heat that passes through the window and roof. This results in a more comfortable living space yet maintaining a bright environment.

*See pages 7 & 11 for more on this topic.*

## ENSURING YOUR GLAZING IS EASILY MAINTAINED

Spend less time cleaning and more time enjoying your surroundings with our "Clearview" coating which makes your glass easier to maintain. Clearview self-cleaning glass combines the natural action of the sun and rain to keep glass cleaner for longer.

**Top Tip:** Ask for a product that includes Clearview on your outer pane.

*See page 6 for more on this topic.*





## SECURITY, UV PROTECTION AND FURNITURE FADE

Larger glazed areas create amazingly bright rooms but with that comes the fading effects of sunlight and UV rays on your furniture, floor coverings, curtains, photos and more.

Not all glass protects against these damaging UV rays, but choosing an inner pane with an invisible interlayer provides 99%\*\* UV reduction – safeguarding your furnishings and memories.

\*\*Calculated from UV transmittance in accordance with EN 410.

**Top Tip:** Ask for laminated glass on the inner or outer pane.

*See page 12 for more on this topic.*

## NOISE REDUCTION

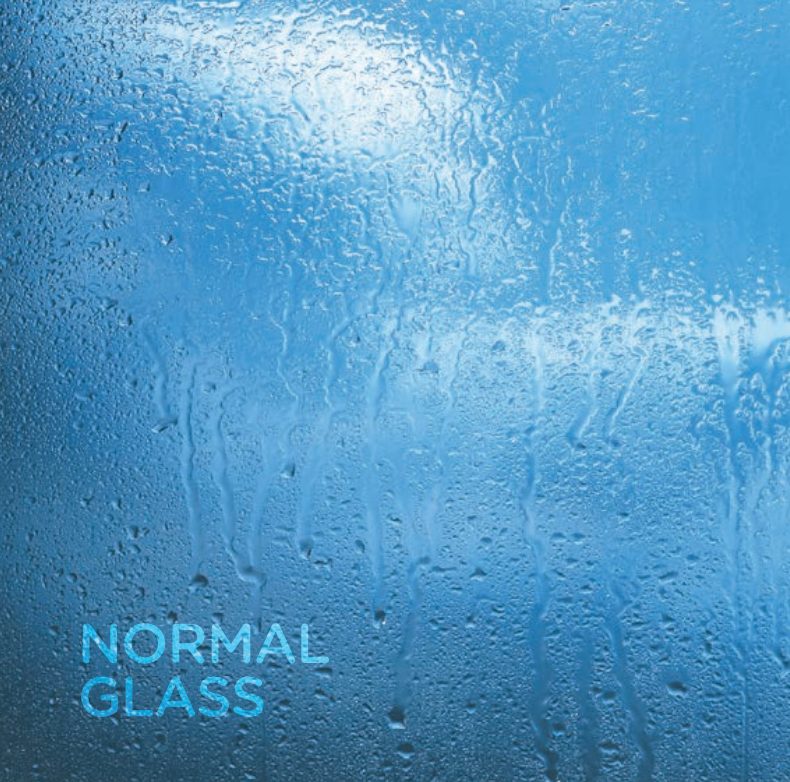
Your choice of window frames and the way they're fitted can only make so much difference to how much noise you hear from outside – and how much sound from indoors leaves your home.

Upgrading your inner or outer pane interlayer to an interlayer that provides noise reducing properties (Acoustic Laminated) will provide a 20% better noise reduction than traditional double glazing\*.

\*Compared with a 4mm/16mm cavity/4mm (uncoated) Double Glazed Unit filled with air.

**Top Tip:** Ask for acoustic laminated glass on the inner or outer pane.

*See page 12 for more on this topic.*



NORMAL  
GLASS

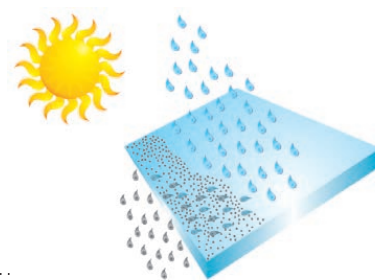


 Clearview

## ROOF GLASS OPTIONS:

 Clearview

LOW MAINTENANCE SELF-CLEANING COATING



Spend less time cleaning and more time enjoying your surroundings.

Clearview Glass works in two ways. Firstly, the special coating harnesses natural daylight which triggers the breakdown of the dirt and grime on the outer surface of the glass. Secondly, when rainwater hits the glass, rather than forming droplets it sheets across the surface of the glass helping to wash away the loosened dirt and grime.

### THE BENEFITS

- Perfect for applications where cleaning is difficult and visibility important
- Saves time and money



WINTER COMFORT



SUMMER COMFORT



ENVIRONMENT



LOW MAINTENANCE





## YOUR OPTIONS:

# SOLAR CONTROL

HIGH PERFORMANCE SOLAR CONTROL COATING  
IN ROOF GLAZING



Helping you maximise the use of your extension by keeping the interior cool.

The glass used in our six Clearview roof glass colours - Dark Grey, Aqua, Blue, Elite Blue, Neutral and Bronze - have an additional versatile solar control function, to help prevent the build-up of heat during hot summer months.

The solar control coating reflects heat from the sun back outside the room, resulting in a more comfortable light-filled, year-round living space.

Our solar control coated glass can then be combined with Thermaglas or Thermaglas One glass on the inner pane to create a roof with maximum thermal insulation for the winter months.

### THE BENEFITS

- Heat is reflected helping to prevent your room from overheating.
- Increased comfort during summer months.



WINTER COMFORT



SUMMER COMFORT



ENVIRONMENT



LOW MAINTENANCE

# ROOF GLASS COLOUR OPTIONS



## Clearview *dark grey*<sup>®</sup>

Dark grey tinted roof glass

-  WINTER COMFORT
-  ENVIRONMENT
-  SUMMER COMFORT
-  LOW MAINTENANCE



## Clearview *elite blue*<sup>®</sup>

Blue tinted roof glass with additional solar control

-  WINTER COMFORT
-  ENVIRONMENT
-  SUMMER COMFORT
-  LOW MAINTENANCE



## Clearview *aqua*<sup>®</sup>

Aqua tinted roof glass with additional solar control

-  WINTER COMFORT
-  ENVIRONMENT
-  SUMMER COMFORT
-  LOW MAINTENANCE

\* The above images are for illustration purposes only. Please see samples for accurate colours.



# ROOF GLASS COLOUR OPTIONS



## Clearview *neutral*<sup>®</sup>

Neutral roof glass with additional solar control

-  WINTER COMFORT
-  ENVIRONMENT
-  SUMMER COMFORT
-  LOW MAINTENANCE



## Clearview *blue*<sup>®</sup>

Blue tinted roof glass

-  WINTER COMFORT
-  ENVIRONMENT
-  SUMMER COMFORT
-  LOW MAINTENANCE



## Clearview *bronze*<sup>®</sup>

Bronze tinted roof glass

-  WINTER COMFORT
-  ENVIRONMENT
-  SUMMER COMFORT
-  LOW MAINTENANCE

\* The above images are for illustration purposes only. Please see samples for accurate colours.

# PRODUCT COMPARISON



Choosing the right glass is perhaps one of the most important decisions that you will need to make, but it needn't be a tough one. The comparison chart below is designed to help you choose the perfect combination of products that will enable your new glazed extension to meet your requirements.

## HIGH PERFORMING ROOF GLASS

Glass outer pane	Cavity fill	Glass inner pane description	U-value	Solar reduction	LT	Low maintenance
4mm Clearview Dark Grey Tgh	Argon	4mm Thermaglas Tgh	1.2	90%	8%	✓
4mm Clearview Elite Blue Tgh	Argon	4mm Thermaglas Tgh	1.2	77%	27%	✓
4mm Clearview Aqua II Tgh	Argon	4mm Thermaglas Tgh	1.2	76%	32%	✓
4mm Clearview Neutral Tgh	Argon	4mm Thermaglas Tgh	1.2	57%	44%	✓
4mm Clearview Blue Tgh	Argon	4mm Thermaglas Tgh	1.2	54%	56%	✓
4mm Clearview Bronze Tgh	Argon	4mm Thermaglas Tgh	1.2	50%	51%	✓

## HIGHER PERFORMING ROOF GLASS

Glass outer pane	Cavity fill	Glass inner pane description	U-value	Solar reduction	LT	Low maintenance
4mm Clearview Dark Grey Tgh	Argon	4mm Thermaglas ONE Tgh	1.0	92%	7%	✓
4mm Clearview Elite Blue Tgh	Argon	4mm Thermaglas ONE Tgh	1.0	83%	23%	✓
4mm Clearview Aqua II Tgh	Argon	4mm Thermaglas ONE Tgh	1.0	82%	28%	✓
4mm Clearview Neutral Tgh	Argon	4mm Thermaglas ONE Tgh	1.0	70%	38%	✓
4mm Clearview Blue Tgh	Argon	4mm Thermaglas ONE Tgh	1.0	67%	47%	✓
4mm Clearview Bronze Tgh	Argon	4mm Thermaglas ONE Tgh	1.0	66%	43%	✓

There are numerous combinations of sealed units which can be manufactured by Custom Glass.

Those listed above are by far the most popular choice of our customers. Simply by performance we have labelled these high, higher, and highest.

**Privacy** can be incorporated into any of the above units in place of **either** the inner or outer leaf of glass (performance will be effected depending on choice).

All our roof units are manufactured using black warm edge spacer.





## YOUR OPTIONS:

# SKN 176 SOLAR CONTROL GLASS FOR WINDOWS



YEAR-ROUND SOLAR AND THERMAL CONTROL

For side wall windows that keep you cooler in the summer and warmer in the winter choose SKN 176 glass.

SKN 176 allows a good amount of light to enter the room whilst at the same time controlling the natural heat from the sun, preventing overheating in the summer and reducing excessive heat loss during colder periods. Used alongside high performing roof glass, SKN 176 in your side walls, can help maintain a constant temperature and provide year-round comfort.

The high light transmittance of the glass also lessens the requirement for interior lighting during daylight hours, helping to cut your energy costs and carbon footprint.

With such high thermal insulation, draughts are almost eradicated meaning ventilation must be considered to ensure the air is kept fresh inside your home, giving a healthy living environment.

### THE BENEFITS

- Capable of reducing unwanted heat by 45%\*
- Reduces heat loss from your home by 60%\*
- Increased energy efficiency can mean energy cost reductions
- Attractive neutral appearance maximises natural light and gives clear views
- Creates sustainable homes and buildings by reducing the need for air conditioning

\*Compared with a 4mm/16mm cavity/4mm (uncoated) Double Glazed Unit filled with air.



ENERGY SAVING



SUMMER COMFORT



DESIGN



DAYLIGHT COMFORT



WINTER COMFORT



ENVIRONMENT

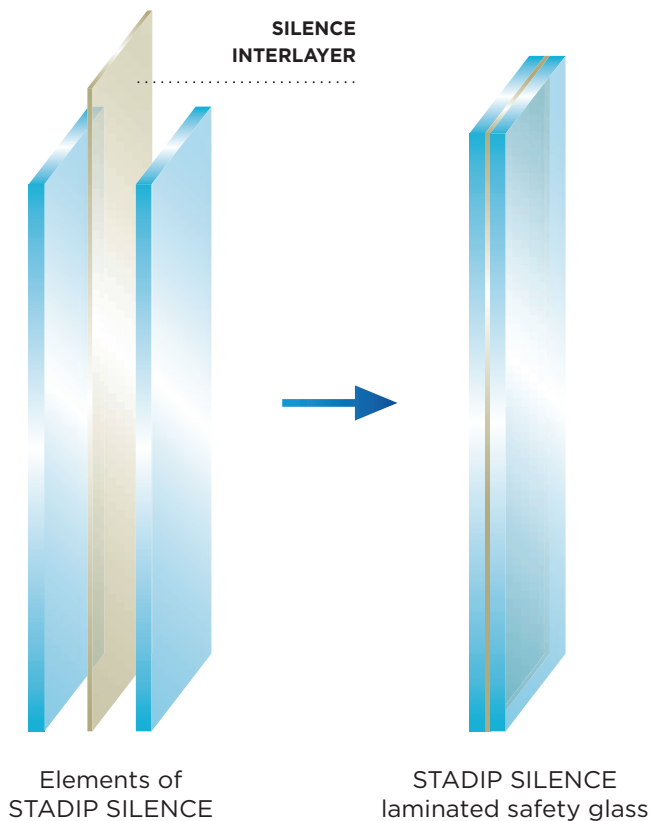
# GLASS PERFORMANCE

## ACOUSTIC LAMINATED

### BEAUTIFUL TRANSPARENT NOISE CONTROLLING GLAZING

#### HOW DOES IT WORK?

ACOUSTIC LAMINATED is a safety glass, consisting of two or more sheets of glass bonded together by one or more acoustic Polyvinyl Butyral interlayers, known as PVB (A). This film interlayer that has a special dampening core helps to reduce the transmission of sound.



#### ADVANTAGES

- Excellent levels of sound insulation without the need for thick, heavy glass
- Even sound insulation across the entire frequency range.
- Distortion-free transparency
- All the safety and security properties associated with standard laminated glass



# GLASS PERFORMANCE

## THERMAGLAS ONE

### SUPERIOR PERFORMANCE LOW-E GLASS

THERMAGLAS ONE offers the most advanced thermal insulation performance within the THERMAGLAS family, Europe's best selling low-emissivity (low-E) glass and provides improved solar control benefits to allow for a comfortable all year round living space.

#### THE BENEFITS

- Noise reduction, when used in conjunction or applied to ACOUSTIC LAMINATED
- Can help to reduce heating requirements, giving an environmentally friendly solution, with the lower CO<sup>2</sup> emissions associated with reduced energy consumption.
- Can help protect against break-in attempts or vandalism by delaying, or even preventing, penetration through the glass in the event of forced break-in or damage. \*when combined with ACOUSTIC LAMINATED
- Helps to prevent overheating in larger glazed areas
- Helps to eliminate cold areas around windows resulting in greater comfort
- Reduces incidence of condensation on the inner pane
- Neutral appearance in both transmission and reflection
- Maximises use of living and working environment



ENERGY SAVING



SUMMER COMFORT



DAYLIGHT COMFORT



WINTER COMFORT



# Custom Glass integral ScreenLine blind units

## Style of blind

Available in Pleated and Venetian options

## Operating systems

5 different operating systems to choose from

## Colours

A wide range of colour options available on all blind types

## Clean for life

Sealed within a double glazed unit

## No risk of damage

Sealed inside a double glazed unit, integral blinds cannot be damaged

## Excellent light and solar control properties

Saving you time and money

## Maintenance-free

Made from the most durable and high quality components

## Privacy guaranteed

100% blackout blind system also available within a 28mm double-glazed unit

## Guaranteed for 5 years

Produced and tested to the highest and most rigorous quality standards

## Over 25 years

Experience in manufacturing blind units



Scan to find out more.





# GLOSSARY OF TERMS

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## **CONDENSATION**

Condensation occurs when warm air collides with cold surfaces, or when there's too much humidity in your home. While condensation is rarely a problem in the summer, the amount of water in the air (otherwise known as the humidity) inside our homes is higher during the colder months.

## **LAMINATED GLASS**

Two or more pieces of glass permanently bonded together with one or more plastic interlayers using heat and pressure.

Laminated glass can be broken, but the fragments will tend to adhere to the plastic layer and remain largely intact, reducing the risk of injury and is therefore considered 'Safety glass'.

## **SOLAR CONTROL GLASS**

Solar control glass products specialise in blocking heat. They have a more reflective appearance and the lowest solar heat gain.

## **THERMALLY INSULATING GLAZING**

Consists of two or more glass window panes separated by a vacuum or gas-filled space to reduce heat transfer across a part of the building envelope.

## **TRANSLUCENT**

Transmitting light but obscuring clear vision.

## **TRANSPARENT**

Clear, permitting vision.

## **U-VALUE**

This is a measure of the rate of heat loss of a building component. It is expressed as Watts per square metre, per degree Kelvin,  $W/m^2K$ . The lower the U-Value the more heat is retained in your home.

## **UV TRANSMITTANCE**

The percentage of solar energy in the form of ultra-violet radiation transmitted by glazing.

## **WINDOW ENERGY RATING (WER)**

A scheme launched in 2004 by the British Fenestration Rating Council (BFRC), to assess the whole window energy performance of a window including all the components that make up the window.

# SAINT-GOBAIN GLASS

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We source all our glass from Saint-Gobain Glass, Europe's leading manufacturer of flat glass for the UK. Saint-Gobain Glass has the vision to be the reference for innovation and service, achieved by putting the customer at the heart of everything it does to offer unrivalled products and services.

Whether for an extra living space that can be used year-round, or a seamless, visually connected link between home and garden, the right choice of glass is key.



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