SAINT-GOBAIN



YOUR EXTENDED HOME

Higher-performance[1] glazing that can help reduce overheating.

SAINT-GOBAIN GLASS



YOUR EXTENDED HOME

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1. (Cover) *Higher-performance, coated, flat glass, achieves an emissivity level of 3% or less. Saint-Gobain Glass' PLANITHERM® and COOL-LITE® products are higher-performing than uncoated, flat glass substrates, based on emissivity level.*



COMFORT

Renovating or extending your home is a great way to improve and add value to your property. It can also create the opportunity to design a multi-purpose space to complement the way we live today.

Natural light can play an important role in supporting health and wellbeing. Adding larger areas of glazing can help maximise natural light, creating brighter, more open internal spaces and supporting health and wellbeing.

Whether it's bi-fold or sliding doors, picture frame windows, lanterns, or a fully glazed roof, your glass choice matters.

Saint-Gobain Glass incorporates a range of coatings that can help reduce your energy bills[2], prevent overheating[3] whilst maintaining good levels of natural daylight. Ask your glass supplier for more information.

This brochure will help you understand these coatings and choose the glass option that is right for you.

2. *Thermal insulation: Low-e coatings can provide thermal insulation, helping reduce the need for heating in colder weather.*
3. *By limiting how much solar heat is transmitted through the glass, the need for mechanical cooling is reduced.*

HOW DOES GLASS AFFECT THE COMFORT OF MY HOME?

Did you know, it's the glass within your windows and doors that can make a difference to how warm or cold your home feels?

Flat glass can be processed into many different types of glazing that can help reduce external noise and maximise daylight without increasing the risk of overheating or furniture fade (features are dependent on glazing configuration).

This section highlights the important factors you may want to consider when designing your new space.



RETAINING INTERNAL HEAT

Our glass options all encompass coatings with varying properties that help reduce the amount of heat that escapes through a window. This means that your glazing will help retain some of the heat provided by radiators, for example, so that your room remains warmer in the winter months[4]; helping you to use less energy.

TOP TIP

Ask your glass supplier about U-values.

U-values indicate how well an insulated glass unit will retain internal heat. The lower the number, the more heat is retained inside your home.



REDUCING OVERHEATING

Rooms with lots of glass will give you a great view of the outdoors, but the warmth from natural daylight can sometimes make it uncomfortably hot on sunny days. Each of our glazing options has solar control coatings to help limit the amount of heat that passes through the window, resulting in a more comfortable living space.

TOP TIP

Ask your glass supplier about g-values.

g-values measure the amount of heat that ends up in your room from the sun. The lower the g-value, the less heat transmits through the glass.

4. *When compered to a standard double glazed unit with no coatings.*

LOWER-MAINTENANCE

Spend less time cleaning and more time enjoying your surroundings with our "BIOCLEAN®" coating which makes those hard to reach areas, such as roofs and lanterns, easier to clean.

BIOCLEAN® lower-maintenance[5] glass combines the natural action of the sun and rain to keep glass cleaner for longer. It can reduce how often you need to clean your windows meaning you can use less water.

TOP TIP

Ask your glass supplier about our BIOCLEAN® range...

...which is available in a choice of coloured tints including clear, blue and green.



SECURITY, UV PROTECTION AND FURNITURE FADE

Larger glazed areas can help create bright indoor spaces, but can raise security concerns and may risk increasing furniture fade and the transmission of UV rays.

Opting for laminated glass with a 0.8mm interlayer can help protect protect against burglary and vandalism. Tested to meet the official police security standard* "Secured by Design" and Building Regulations (Doc. Q), the laminated interlayer makes your glazing much tougher to break through than standard glass.

As an added bonus, the interlayer also blocks over 99%** of UV rays, helping protect your furnishings and decor from fading.

* *When used in conjunction with a compliant framing system.*
** *Calculated from UV transmittance in accordance with EN 410.*

TOP TIP

Ask for "STADIP® PROTECT", Saint-Gobain's laminated glass with a 0.8mm interlayer.





REDUCING NOISE

Unwanted noise can be intrusive and can have a big impact on general wellbeing and comfort within the home.

You can reduce noise transmission through your windows by choosing a built-in interlayer that not only has all the benefits of laminate, but in addition provides 26%* better noise reduction values than traditional double glazing.

* *Comparing a 4mm/16mm air cavity/4mm DGU with 4mm/16mm argon cavity/6.8mm STADIP® SILENCE DGU calculated in accordance with EN ISO 140 & EN ISO 717.*

TOP TIP

Ask for "STADIP® SILENCE", Saint-Gobain's laminated glass with acoustic properties.

5. *When independently tested in accordance with EN 1096-5. The coating has been tested in accordance with EN 1096-5, which assesses the durability and performance of coated glass under simulated environmental exposure conditions. Glass with the self cleaning coating "Bioclean" is lower maintenance compared with standard glass with no coating.*



GLAZING FOR LARGE AREAS

Redesigning or extending your home is a major decision, with considerations around usage, size and design.

Saint-Gobain Glass has a selection of products suited towards large glazed areas for large glazed areas within the home such as bi-fold and sliding doors or picture frame windows.

PLANITHERM® ONE T

Low-emissivty (Low-E) coated glass with solar control properties that provides thermal insulation and reduced risk of overheating in sunny weather, when compared with other PLANITHERM products or non-coated glass products.

BENEFITS

Reduced overheating

Helps limit the amount of solar heat transmitted through the glass, helping to reduce the need for mechanical cooling.

Thermal insulation

Provides thermal insulation, helping to reduce the need for heating in colder weather.

Neutral appearance

Provides solar control with a neutral appearance, consistent colour and low reflection.

COOL-LITE® SKN 176 II

Higher-performance solar control coated glass combining reduced solar heat gain with thermal insulation.

BENEFITS

Reduced overheating

Provides a higher level of solar control compared to PLANITHERM® ONE T, limiting the amount of solar heat transmitted through the glass and helping to reduce the need for mechanical cooling.

Thermal insulation

Provides thermal insulation, helping to reduce the need for heating in colder weather.

More neutral appearance

Its lower external reflection compared with PLANITHERM® ONE T provides a more neutral appearance, making it particularly suited to large areas of glazing.

See **Calumen.com** for product performance data.

Both products can be combined with laminated inner panes:

- **STADIP® PROTECT**
  Saint-Gobain's laminated glass with a 0.8mm interlayer, provides security, safety and furniture fade protection.
- **STADIP® SILENCE**
  All the benefits of STADIP® PROTECT plus noise reduction benefits.

PERFORMANCE DATA*	PLANITHERM® ONE T	COOL-LITE® SKN 176 II
U-value (Thermal Insulation) Top Tip: the lower the number, the less heat escapes from your home	1.0	1.0
g-value (Reducing Overheating) Top Tip: the lower the g-value, the less solar heat penetrated through the glass	0.45 (55% of heat blocked)	0.37 (63% of heat blocked)
TL (Light Transmission) Top Tip: the higher the percentage, the more daylight transmitted through the glass	67%	70%
Outdoor Reflectance (RLe)	25%	13%
Indoor Reflectance (RLi)	25%	15%

* *All performance data is based on a unit configuration of 4mm outer pane, 16mm argon filled cavity, 4mm inner pane. To achieve these performance values, coatings must be on face 2 of the unit.*



GLAZING FOR ROOFS AND LANTERNS

Our roof glass products have a transparent coating on the outer surface called BIOCLEAN®, helping the glass stay cleaner for longer.

BIOCLEAN®, the lower-maintenance[5], self-cleaning coating works with natural elements, such as sun, to break down any external dirt and rain to wash it away.

Due to the nature of the coating, BIOCLEAN® performs when on a gradient, allowing the water to flow across the glass and avoiding any streaks formed by water droplets.

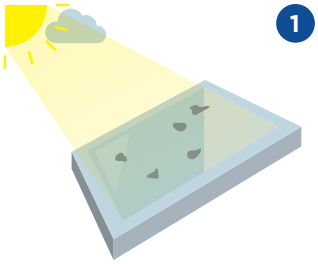
POTENTIAL BENEFITS

- *Time-saving*
- *Easier to clean, and less often[9]*
- *Ideal for hard to reach places*

HOW DOES IT WORK?

SGG BIOCLEAN® acts **100% naturally** by exploiting the dual action of daylight and rainwater.

Watch the demo.



BIOCLEAN® is activated by the sun's UV rays creating a photocatalytic process that breaks down dirt present on the surface of the glass.



BIOCLEAN®'s hydrophilic properties then help the water run off the glass surface easily, washing away the dirt, leaving your windows clean.

BIOCLEAN® and BIOCLEAN®+ coating is available on a range of tinted glass.

BIOCLEAN®

MARIANA

Dark grey tinted roof glass, perfect for anthracitre frames.



AZURA

Blue tinted roof glass designed to enhance any skyline.



SOLARA

Bronze tinted roof glass designed to complement wooden frames.



BIOCLEAN®+

NATURA+

Clear roof glass designed to see the world in its natural beauty.



AQUA+

Green tinted roof glass perfect for complementing nature.



AZURA+

Blue tinted roof glass designed to enhance any skyline.



All images are for illustration purposes only. Please request a sample.

Glass Type	Tint	U-value (the lower the number the more internal heat remains in the home)	g-value (the lower the number the less heat transmitted into your home)	TL (the % of light entering the room)
Mariana	Ultra Grey	1.0	0.08 (99% of heat blocked)	7%
Azura	Blue	1.0	0.33 (67% of heat blocked)	47%
Solara	Bronze	1.0	0.34 (66% of heat blocked)	43%
Natura+	Clear	1.0	0.30 (70% of heat blocked)	38%
Aqua+	Green	1.0	0.18 (82% of heat blocked)	28%
Azura+	Blue	1.0	0.17 (83% of heat blocked)	23%

To achieve the above values each roof glass option must be combined into an insulated glass unit with BIOCLEAN® on the outer pane (face 1) and PLANITHERM® ONE T on the inner pane (face 3). Figures are based on 4mm-16mm-4mm DGU configuration.



MAKING THE WORLD A BETTER HOME

Saint-Gobain Glass UK & Ireland provides a diverse range of flat glass products to meet the demands of the construction industry.

Part of the global, Saint-Gobain Group, the business is leading the flat glass industry in the production of lightweight and sustainable solutions, enabled by strategic investments into a new, more energy-efficient furnace, and glass recycling at the state-of-the-art facility based in Eggborough, East Yorkshire.

Saint-Gobain's commitment to safety and sustainability is the driving force behind our purpose of making the world a better home.

GLASS FOREVER

Why Glass Forever matters

In the face of the climate emergency, rising energy costs, and depletion of natural resources used in glass manufacturing, it's crucial that we re-evaluate our production processes. As an industry, we must be more responsible and sustainable in our operations which is why, at Saint-Gobain Glass, we have proudly developed Glass Forever, our pioneering glass recycling programme.

Cutting-edge technology and environmentally conscious practices come together to transform the cullet into new glass at our Eggborough facility, reducing the environmental impact of glass production. This contributes to a circular economy, where materials are reused, minimising waste, and conserving vital resources.

Glass Forever embodies our steadfast dedication to:

CO_2 emissions
Minimising CO_2 emissions throughout manufacturing, including raw materials – addressing scope 1, 2, and 3 emissions.

Decreasing consumption
Decreasing the consumption of resources at every stage of the glass manufacturing process.

Preserving natural resources
Preserving our planet's invaluable natural resources through long-term sustainable practices.



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