

SGG **BIOCLEAN[®] COOL-LITE ST**

*Dual-coated self-cleaning
glass with solar
control properties*

SGG BIOCLEAR® COOL-LITE ST

Dual-coated self-cleaning glass with solar control properties

A welcome extension to the SGG BIOCLEAR range, combining effective self-cleaning properties with high performance solar control. This unique dual-coated glass represents a revolutionary solution for roof glazing and hard to reach areas.

Applications

SGG BIOCLEAR COOL-LITE ST is an extremely versatile product, offering a long-term and effective low-maintenance solution coupled with high performance solar control.

This glass is particularly suited to applications where access for cleaning is either difficult or dangerous. It also allows for large areas of glazing, whilst reducing glare and excessive heat build up.

Domestic

- Conservatory roofs
- Windows
- Patio doors / other external doors

Commercial

- Windows / façades
- Curtain walling
- Overhead glazing



Advantages

For processors:

SGG BIOCLEAR COOL-LITE ST:

- The opportunity to offer a unique combination of self-cleaning and high performance solar control properties, on a single piece of glass.
- Both coatings are durable and easy to handle.
- Full processing flexibility and control.
- Does not have a shelf life nor require edge-deletion.
- Is readily available from Eggborough in 4mm and 6mm thickness.
- Must be toughened.

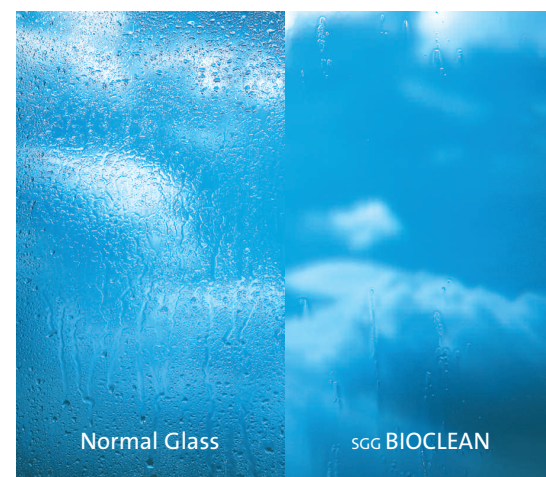
For end-users:

SGG BIOCLEAR:

- Less frequent cleaning and more attractive windows.
- Much easier cleaning as less dirt and grime adheres to the glass.
- Permanent self-cleaning coating stays on the glass for the lifetime of the window, unlike other "easy-clean", wax-like products.
- The cost of window cleaning is reduced.
- Clear vision through windows, even when its raining.

SGG COOL-LITE ST:

- An attractive neutral external reflection.
- Enhanced visual comfort by filtering light and reducing glare.
- Offers good solar control performance, helping to keep rooms cooler during sunny periods.



Description

SGG BIOCLEAN COOL-LITE ST is a dual-coated self-cleaning glass with a high performance solar control coating on face 2.

The SGG BIOCLEAN self-cleaning coating is fully integrated into the surface of the glass, ensuring a high level of durability. This also means that the

hydrophilic and photocatalytic properties will last the lifetime of the window.

The SGG COOL-LITE ST coating is applied to face 2 by the cathodic sputtering of metal oxides in a vacuum. This solar control coating is also very robust and offers excellent processing flexibility and ease of handling.

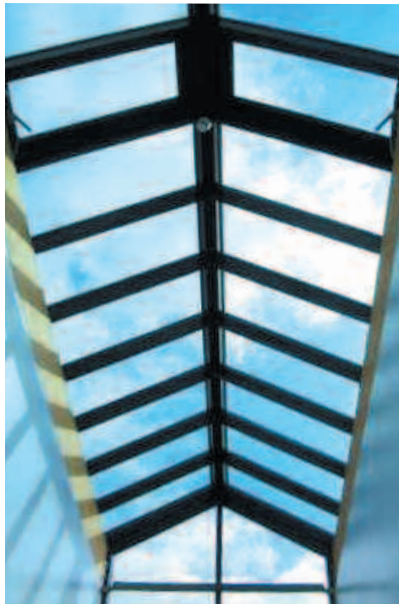
Processing

Full processing guidelines for SGG BIOCLEAN COOL-LITE ST are available from Saint-Gobain Glass.

General Notes

- Must be toughened to achieve optimum activation
- Avoid all direct contact with silicone (sealants, sprays, suckers, gloves).
- Always position the SGG BIOCLEAN coating on the outside of the double glazed unit, with the SGG COOL-LITE ST coating facing the cavity (face 2).

Please also refer to the list of recommended products for use with SGG BIOCLEAN, available from SGGUK Marketing or online at www.selfcleaningglass.com



Installation

- Ensure that SGG BIOCLEAN COOL-LITE ST is installed with the self-cleaning coating facing the exterior of the building and the solar control coating towards the interior.
- Use pre-formed dry gaskets (EPDM) where at all possible.
- The glass must be thoroughly cleaned when all site work has been completed.
- SGG BIOCLEAN COOL-LITE ST must be installed vertically or in an inclined position.
- To activate the coating, the glass must be exposed to natural light for several days.
- For more details please refer to the installation guidelines (Document B2) and the list of recommended products for use with SGG BIOCLEAN.

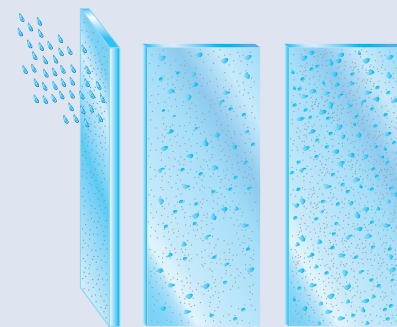
Maintenance

SGG BIOCLEAN does not need to be cleaned as frequently as conventional glass. However, it is not a "maintenance free" glass. The performance of the self-cleaning action can vary depending on the amount and type of dirt, total exposure to light and rain the glass will receive and the incline of the window.

Should the glass require cleaning this can be done by simply rinsing with soft water.

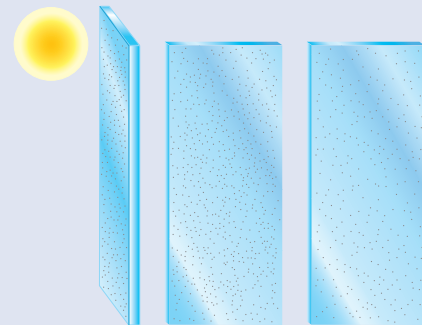
- For stubborn marks use warm soapy water or a standard window cleaning product and soft, clean cloth or sponge.
- Do not clean with sharp or abrasive objects such as razors, wire wool or knives.
- Do not use abrasive cleaners or 'water-repellent' cleaning products which may form a film on the glass.
- For further details please refer to the maintenance guidelines (Document B1).

How does it work?



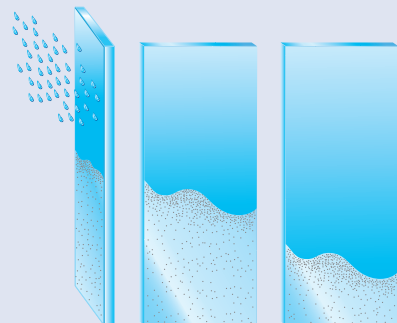
Normal Glass

Dirty water marks and grime gather on the window.



SGG BIOCLEAN - Step 1 : Photocatalysis

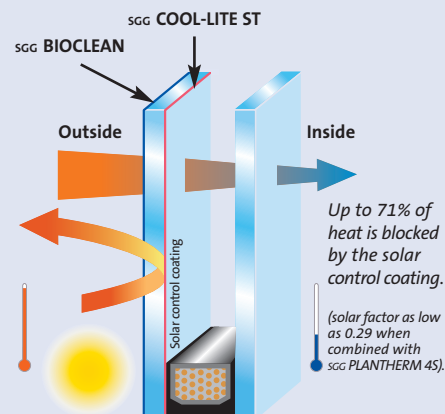
Exposure to the UV rays present in daylight triggers the decomposition of organic dirt and causes the surface of the glass to turn hydrophilic.



SGG BIOCLEAN - Step 2 : Hydrophilic Action

Water (or rain) forms a sheet of water across the surface of the glass and rinses away broken-down organic dirt and mineral material.

Double glazed unit with SGG BIOCLEAN COOL-LITE ST



Product Range

SGG BIOCLEAN COOL-LITE ST	
Monolithic Glazing	Standard Dimensions (in mm): PLF 6000 x 3210 DLF 3210 x 2250 Thicknesses: 4mm and 6mm
Double Glazing	SGG BIOCLEAN can be combined with many other high performance products, such as the SGG PLANITHERM range for year round comfort

Performance

Double-glazed unit with:					
Glass	External	SGG BIOCLEAN COOL-LITE ST			
		SGG PLANILUX	SGG PLANITHERM TOTAL+	SGG PLANITHERM ULTRA N II	SGG PLANITHERM 4S
Internal					
Composition	mm	4(16)4	4(16)4	4(16)4	4(16)4
Position of Coating					
• self-cleaning	Face	1	1	1	1
• solar control	Face	2	2	2	2
• thermal insulation	Face	N/A	3	3	3
• 4 seasons	Face	N/A	N/A	N/A	3
Light Factors					
LT	%	45	44	44	37
LRe	%	23	21	21	26
LRI	%	23	21	21	31
UV Tuv	%	20	17	15	13
Solar Radiant Heat Factors					
T	%	39	33	30	23
Re	%	19	23	26	29
A1	%	37	37	40	44
A2	%	4	6	5	5
Solar Factor					
$g_{EN 410}$		0.46	0.40	0.36	0.29
Shading Coefficient	SC	0.53	0.46	0.41	0.33
U-Value	W/(m ² K)				
90% Argon filled cavity (EN 1279)		N/A	1.2	1.1	1.0
Air filled cavity		2.7	1.4	1.4	1.3

SGG BIOCLEAN COOL-LITE ST meets the requirements of standard EN 1096 relating to the durability of coated glass in buildings.

SGG BIOCLEAN conforms to Class A of this standard (for coating on face 1).

SGG COOL-LITE ST conforms to Class B of this standard.

Distributor


SAINT-GOBAIN
GLASS

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