

SGG **BIOCLEAN[®] +**

*Self-cleaning
glass*

SGG BIOCLEAN®+

Your glass stays cleaner for longer!



Applications

SGG BIOCLEAN®+ simplifies the maintenance and cleaning of glass. The glass is placed in vertical or roof position, in outside position of the glazing/window. This glass could be used for residential or commercial application, both in new building or refurbishment:

- Windows, roof windows, bay windows
- Conservatories, roof and patio doors
- Glazed facades, skylights, overhead and atria glazing.

SGG BIOCLEAN®+ is recommended in all environments, especially in places heavily polluted (urban, airport, industrial area, etc.).

Advantages

Dirts adhere less to the glazing; spraying water is enough to drain the dirts.

- **Less time spent to clean the glass** - window stays cleaner for longer
- **Much easier cleaning**

• Aesthetics and transparency

The hydrophilic function gives a clearer vision during rainy weather. Very weak change of glazing aesthetics/optical performances with SGG BIOCLEAN®+.

• Respect of the environment and save money

The limited use of detergent preserves the environment and leads to a reduction of cost maintenance for façade or glass roof.

• Multifunction

Association with other functions to offer thermal insulation, solar control, acoustic comfort and security.

Description

SGG BIOCLEAN®+ is a self-cleaning glass composed of a clear, extra-clear or tinted glass on which is deposited a combination of thin layers of metallic oxides which combine both transparency, photocatalytic and hydrophilic properties.

Range

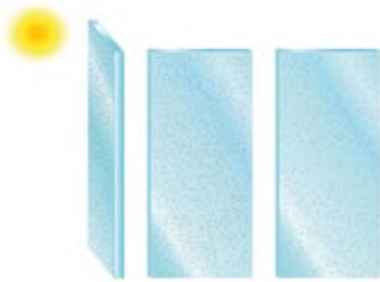
- SGG BIOCLEAN®+ 4 and 6 mm
- SGG BIOCLEAN®+ PLANITHERM XN 4 and 6mm
- SGG BIOCLEAN®+ PLANITHERM SUN 4 and 6mm
- SGG BIOCLEAN®+ COOL-LITE SKN 165 and SGG BIOCLEAN®+ COOL-LITE SKN 174 in 4 and 6mm
- Jumbo size
- Others combination, thicknesses or type of substrates please contact us



Operation

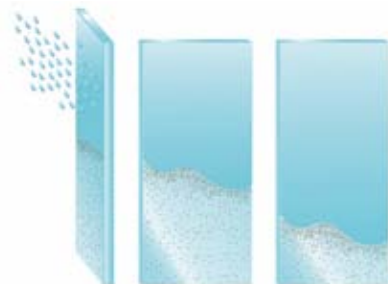
SGG BIOCLEAN®+ harnesses the power of UV rays present in daylight and rain to efficiently combat dirt and grime that is deposited on the exterior face of the glass.

- The photocatalytic properties is activated by UV rays and trigger the decomposition of organic dirts, organic atmospheric pollutants, dried water marks, sea spray, insect residues.. and causes the surface of the glass to turn hydrophilic.



SGG BIOCLEAN - Action 1 : photocatalyse

- Thanks to the hydrophilic property, rain (or water) forms a layer of water across the glass and rinses away the broken-down organic dirt and mineral materials.



SGG BIOCLEAN - Action 2 : hydrophille

The performances of the self-cleaning function can vary depending on the environment and the location of the glass: type of dirt, amount of dirt, total exposure to light and rain, incline of the window, proximity with the sea...

During dry spells or in shaded areas, SGG BIOCLEAN®+ still has the ability to clean itself more easily than ordinary glazing and may simply require a rinse with clean soft water to help keep windows clean.

SGG BIOCLEAN®+ should never be considered as a glass which requires no maintenance. SGG BIOCLEAN®+ cannot break down large areas of solid, mineral dirt such as cement, paint, varnish, silicones, etc... SGG BIOCLEAN®+ will meet requirement of future EN 1096-5 Self-cleaning norm.

Processing

SGG BIOCLEAN®+ could be processed as a normal glass. The standard precautions for glass processing apply: avoid any contact of the coating with hard and sharp objects, protect the glazing during installation on site.

SGG BIOCLEAN could be tempered.

For more technical information, please refer to SGG BIOCLEAN / SGG BIOCLEAN II processing guidelines document.

SGG BIOCLEAN®+ is not compatible with ANY direct contact with SILICONE: spray, gloves, suction cup etc... please refer to SGG BIOCLEAN®+ compatible product list.

Combination with other functions

SGG BIOCLEAN®+ is assembled in insulating glazing and could be combined with almost all type of glass functions.



- SGG PLANITHERM XN and SGG PLANISTAR SUN to obtain a thermal insulation and winter comfort



- SGG COOL-LITE for solar control function and summer comfort



- Range SGG STADIP and SGG STADIP PROTECT to bring security or safety



- SGG STADIP SILENCE to improve acoustic comfort

SGG BIOCLEAN®+ could be laminated (coating should be placed in face 1).

Implementation

During the implementation of the glazing, please keep in mind the following:

- Glazing should always be mounted with the coating looking outside
- Use sealants without SILICONE
- Clean the glass at the end of the installation

For more details, please refer to the guidance of use and the list of compatible products.

Maintenance

SGG BIOCLEAN®+ is not a "100% maintenance free" product. During glass cleaning please keep in mind these instructions:

- Best is to clean the coating by spray with soft water
- Avoid contact with all sharp or abrasive objects (razor blade, Stanley knives etc...)
- Do not use any glass cleaning agents

For more details, please refer to the maintenance instructions.



■ Performances

SGG BIOCLEAR®+ meets the requirement of the European norm EN 1096 on the durability of coated glass for building application. It complies with the requirements of the Class A (coating on face 1). It will also meet requirement of future EN 1096-5 norm on self cleaning.

Exterior glass	Interior glass	Composition (mm)	Light Transmission TL (%)	External Light reflexion RL (%)	Solar Factor g	U _g (W/m ² .k)*
SGG BIOCLEAR®+ PLANICLEAR	-	4	88	11	0,85	-
SGG BIOCLEAR®+ DIAMANT	-	4	88	11	0,87	-
SGG BIOCLEAR®+ **	SGG PLANITHERM XN	4-16-4	80	15	0,63	1,1
SGG BIOCLEAR®+ ** PLANISTAR SUN	SGG PLANISTAR SUN (Face 2)	4-16-4	70	17	0,37	1,0
SGG BIOCLEAR®+ ** COOL-LITE SKN 165	SGG PLANICLEAR	6-16-4	59	19	0,33	1,0
SGG BIOCLEAR®+ ** COOL-LITE SKN 174	SGG PLANICLEAR	6-16-4	67	14	0,40	1,1

*:values calculated according to E410-2011 & EN673-2011 standards

** :Glazing performances calculated with Calumen® II software certified by TUV Rheinland (Report 1019 R10.26687)

■ Digital Applications

Saint-Gobain has developed applications to evaluate the glazing performances and guide the users and help them to choose the glazing best suited for their needs.



Listen with the acoustic simulator the sound attenuation of different performing glazing in different environment.

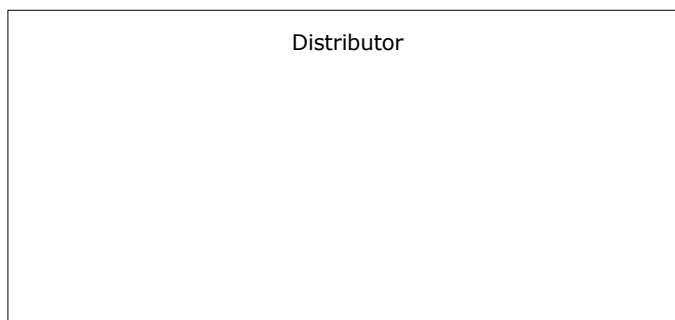


Glass Compass helps you to choose the best glazing for your home.



Calumen II

Calumen software helps you to calculate your glazing performances.



SGG BIOCLEAR®+, SGG COOL-LITE, SGG PLANISTAR SUN, SGG PLANITHERM XN, SGG SECURIT, SGG STADIP, SGG STADIP PROTECT and SGG STADIP SILENCE are trademarks.

SAINT-GOBAIN

SAINT-GOBAIN INNOVATIVE
MATERIALS POLSKA SPÓŁKA Z O.O.
Oddział Glass w Dąbrowie Górniczej
ul. Szklanych Domów 1
42-530 Dąbrowa Górnicza, Poland

glassinfo.pl@saint-gobain.com
www.saint-gobain-glass.pl