SageGlass
SAINT-GOBAIN

For sustainable, comfortable and smart buildings.

Discover SageGlass®, the dynamic glass of Saint-Gobain

Saint-Gobain Tower, France

SAINT-GOBAIN

Inter.xion, France

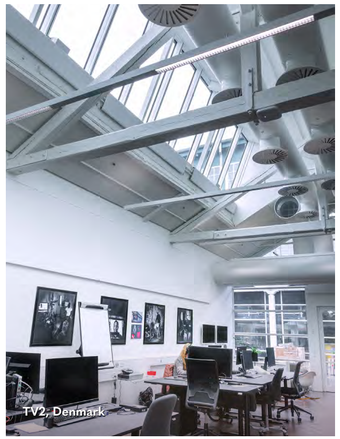
SageGlass® is a dynamic glazing solution combined with an intelligent control system that takes into account occupant and climatic parameters to adapt its tint throughout the day.

SageGlass offers great thermal and visual comfort to the building's occupants, and the possibility to create buildings that are aesthetically pleasing, more respectful of the environment and easier to maintain.

Comfort & well-being

The spaces we occupy have a great impact on our health and well-being. This impact is unfortunately often negative. Glare, lack of natural light, inadequate temperature are some examples of problems too often encountered.

With SageGlass, it is easy to create biophilic designed and comfortable spaces. Spaces with abundant natural light to maintain our circadian rhythm, that offer the soothing effect of a view of the outdoors, without excessive heat or unpleasant glare.



TV2, Denmark

Oppressive glare and unbearable heat. They render spaces unfit for productive work for employees. Traditional solutions would force you to use shades, eliminating access to natural light .

The dynamic glass' ability to change tint automatically transforms this space into an agreable workspace. Employees can work comfortably, without being bothered by the glare or an unberable heat.

Jean Singer & Cie SA, Switzerland

"The SageGlass solution provides unrivalled working comfort and energy efficiency, while combining contemporary aesthetics."

Joris Engisch

CEO of Jean Singer & Cie SA

Best Western Premier Hotel Beaulac, Switzerland

Connecting the built and natural environment

It would be a shame to deprive the customers of the Waves Lounge Bar in Neuchâtel, Switzerland of such a view and the pleasure it brings, by hiding it with blinds or curtains.

Sustainability

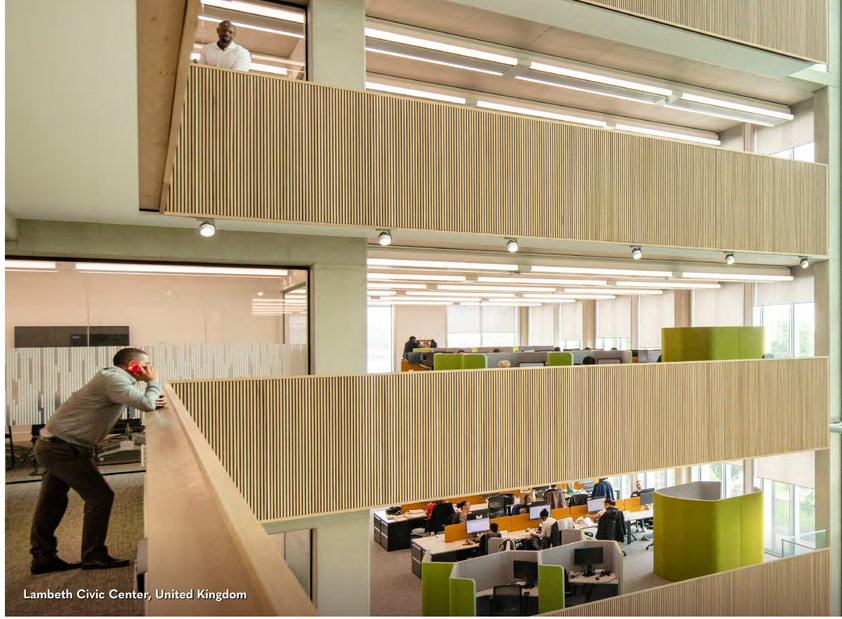
Sustainable buildings must meet a number of requirements, with energy savings at the top of the list. Dynamic glass can **reduce energy consumption in buildings** by an average of 20% compared to alternative high-performance façade solutions*.

Environmental labels such as WELL and BREEAM award credits for sustainable design and reduced energy consumption while maintaining occupant comfort, to which SageGlass glazing can contribute.

Ruselokka school, Norway

Ruselokka School houses primary and secondary schools in Oslo. In 2017, after much heated debate, it was decided to demolish the school and build a new school on the same site. The goal was to create an energy-efficient and environmentally friendly school building.

*Hilson Moran study, 2015. Contact us for more information.



Lambeth Civic Center, United Kingdom

London Civic Centre – London, UK

"SageGlass is a very energy-efficient solution that helped us obtain the BREEAM 'Excellent' certification, which assesses a building's environmental, social and economic sustainability performance"

David Robert

Project Director, Cartwright Pickard – Lambeth Civic Centre

Simplified construction & maintenance

Conventional solar protections generate significant operational costs (cleaning, maintenance) and must be replaced frequently, especially in the case of external protections. With SageGlass, **no particular maintenance is required**, which is especially useful for high buildings and skylight applications.

Designing a building with SageGlass simplifies construction, saves space and **reduces the weight of the façade structures**, since the intelligent glazing replaces interior and exterior solar protection. It also saves a lot of time and money for the implementation.

71Above Restaurant, USA

Hogia, Sweden

Thanks to SageGlass, Hogia employees are not bothered by glare and heat. They can enjoy the sunlight and the view.

Tipee, France

In La Rochelle (France), the salty atmosphere and the sea wind are causing recurrent damage to the exterior mechanical solar protection. Tipee, the leading technology platform for sustainable building, equipped its glass roof with SageGlass in order to free itself from maintenance.

Saint-Gobain Tower, France

Design & innovation

SageGlass is a remarkable innovation, protected by many patents. It offers architects, developers and real estate professionals a differentiating solution: the ability to design a dynamic façade that makes buildings **truly intelligent** and **architecturally distinctive**. No blinds or shading elements distract from the aesthetics of the building, while its comfort is improved. The building and its occupants can take full advantage of the views offered by its location.

Millennium, Switzerland

"Each product selected for our building is an expression of our commitment to providing only the best. This was especially important for the selection of the glazing, as it is a central and visible element of the building. SageGlass Harmony embodies this commitment and will provide our occupants with an unparalleled level of comfort."

Martin Schlienger
Millennium project team

Quantifiable effects on occupants' quality of life

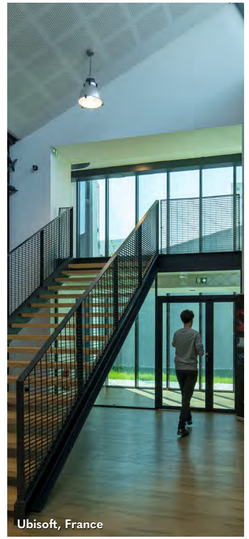
A growing body of research points to the benefits of human-centered design in all areas:

- **Learning**: Daylight can improve student performance. For example, test scores can increase by 5-14% and learning is faster by 20-26% [1].
- **Healing**: Views and daylight are known to aid in the healing process. Hospital stays can be reduced by 8.5% with outdoor views [1].
- **Workplace Performance**: More than one-third of office workers do not have access to sunlight in the workplace, yet 90% of them express a need for it [2]. Studies have shown that employees can be 18% more productive with adequate daylight. Environments with ample natural light and outdoor views enhance creativity by improving both mental function and memory by 10-25% [1].

With SageGlass, you can design buildings with natural light and all-weather views to create **high-value spaces**.

And it's not just theory! Feedback from the occupants of several buildings equipped with SageGlass shows that they are very satisfied with the comfort provided by the intelligent glazing. For example, the results of the survey conducted in 2019 (one year after the installation of SageGlass) on Ubisoft employees in Villeurbanne, France are unequivocal:

> **More than 85% of employees are satisfied or very satisfied with the positive impact of SageGlass dynamic glazing on their visual and thermal comfort, and 90% believe it contributes positively to their overall appreciation of the workspace [3].**



Ubisoft, France

1 Productivity & Health Benefits. The Business Case for Green Building, World Green Building Council, 2013

2 Study conducted by Amplitude Research, Inc. on behalf of SageGlass and Saint-Gobain among 400 employees in the United States between March 22 and April 1, 2016

3 More information is available at: www.sageglass.com/industry-insights/ubisoft-employee-well-being-survey

Ubisoft, France

Our range of dynamic glazing

SageGlass can be installed in **windows, facades, curtain walls** and **skylights** and is **compatible with all types of framing systems**. It is suitable for both new build and renovation projects, for example to bring an historical building up to energy standards without affecting its aesthetics.

To adapt to the specificities of each project, we have developed a complete range of dynamic glazing:

SageGlass Classic

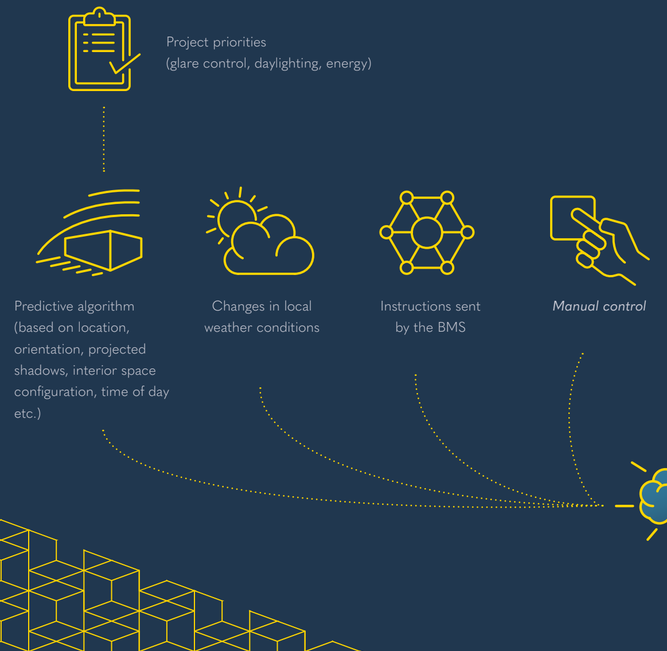
- Glare control without blinds or shutters
- Intelligent daylight management
- Maintain view and connection with the outside environment
- Contribution to environmental labels
- Automatic and manual control

SageGlass Harmony®

ALL BENEFITS OF SAGEGLASS WITH ADDITIONALLY:

- Elegant visual experience with smooth, seamless tint transitions
- Sophisticated & subtle gradient effect
- Precise glare and heat control
- Excellent indoor color rendering
- Natural light gain in spaces

Our control system



The SageGlass Symphony® control system is the intelligence that drives SageGlass.

It features an automatic mode that is custom-configured according to the use of the space. Thanks to sensors positioned on the roof and facades, the glazing take the ideal tint throughout the day to optimize comfort and energy use within the building. It can also be connected with the Building Management System through a standard interface.

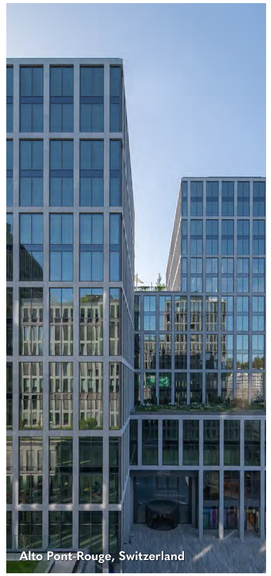
Manual control of the glazing is possible via a mobile app on a smart phone or tablet, and a wall-mounted touch screen.

Most advanced smart windows

Our latest innovation, SageGlass Harmony, is capable of gradient tinting to let in just the right amount of light and block out the sun as needed, while maintaining excellent color rendition.


Alpha Building, Switzerland


40Ten, USA


Alto Pont-Rouge, Switzerland


Port Vauban, France


Sammons Financial, USA

Some technical characteristics

Our technology is compatible with double and triple glazing and can be combined with other glazing enhancements to meet the specific needs of each project in terms of acoustics, colors, aesthetics and safety.

Our glass is available in many shapes: squares and rectangles, but also trapezoids, parallelograms and triangles.

The standard dimensions are around 1.7 × 3 m.

Light and heat are managed by the glazing thanks to 4 tint levels with the following standard characteristics:

Tint	Light transmission	Solar factor g value	Ug value ($W/m^2.K$)
Clear	60 %	0.38	1.1
Light	18 %	0.12	1.1
Mid	6 %	0.07	1.1
Full	< 1 %	0.04	1.1

Calculated values for a standard double glazing SageGlass

Our team will accompany you throughout the complete life cycle of the project, from the design phase to the commissioning of the system, and the training of the occupants.


Thelestads Herrgård, Sweden

See some of our projects come to life

In Europe, many buildings have been equipped with SageGlass intelligent glazing to offer occupants a direct connection with the outside world.

Powerhouse Telemark
(Norway)

Nestlé
(Switzerland)

TV2
(Denmark)

Olay Kyrres Gate 22
(Norway)

Port Vauban, IYCA
(France)

Ruselokka Skole
(Norway)

Himmerland
(Denmark)

Thelestads Herrgård
(Sweden)

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- Jean Singer & Cie SA: Adrien Barakat
- Lambeth Civic Center: John Kees
- Millennium: Pedro Gutiérrez
- Nestlé: Alto Pont-Rouge
- Port Vauban: Valentin Napoli
- Powerhouse Telemark: R8 Property
- Ruselokka Skole: Peter Skott
- Saint-Gobain Tower: Laurent Kronental
- Tipee: Kamel Khalfi
- Thelestads Herrgård: Anders Bergon
- TV2: Peter Skott
- Ubisoft: Adrien Barakat
- 40Ten: Paul Burk

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Learn more at SageGlass.com

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