



For sustainable, comfortable and smart buildings.

Discover SageGlass, the dynamic glass
of Saint-Gobain

 **SageGlass**[®]
SAINT-GOBAIN



INTERXION MRS2 DATA CENTER - MARSEILLE, 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 easy 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 user-friendly and comfortable spaces**. Spaces with abundant natural light, that offer the soothing effect of a view of the outdoors, without excessive heat or unpleasant glare.



Oppressive glare.
Unbearable heat.
We've all been in rooms like this.
There can be no meetings here, no gatherings for your customers, students or staff. Traditional solutions would force you to use shades, eliminating outdoor views and access to natural light.



The dynamic glass' ability to change tint automatically transforms this space into a room you want to showcase. Now occupants of the Bowie State University (USA) are free to use the space for studying, learning and socializing, and architects can design the space as they see fit.



The north entrance atrium of the Mall of America, the US largest retail and entertainment destination, features a huge SageGlass skylight. Abundant natural light floods in from above throughout the day, but without the harsh glare and elevated interior temperatures that compromise comfort – and the increased energy bills.

“SageGlass was just the solution we were looking for to add a WOW-factor and yet solve the functional problem of adding so much sunlight in a retail environment.”

Rich Hoge
Vice President of Operations, Mall of America



**Connecting
the built
and natural
environment**

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 19% compared to alternative high-performance façade solutions*.

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



By blocking the sun throughout hot days or letting it in when needed, SageGlass provides a superior comfort to the visitors of the Mohammed Bin Rashid Library in Dubai. It saves energy, helping the library to pursue LEED and Al Safat green certifications (with a platinum level), all while preserving the view to the outdoors and preventing the priceless books from fading.

* Hilson Moran study, September 2019. Contact us for more information.



The Swiss International Scientific School of Dubai is Minergie certified, which guaranties that the building is comfortable and energy efficient.

“With this dynamic glazing on the façade of our building, we’re setting the precedent for environmental responsibility in an educational environment, and Saint-Gobain and SageGlass are an integral part of our vision.”

Joe Barchini
Partner and COO of the Swiss International Scientific School of Dubai

Simplified construction & maintenance

Conventional solar protections generate significant operational costs (cleaning, maintenance) and must be replaced frequently. With SageGlass, no particular maintenance is required.

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.



The 71above restaurant in Los Angeles (USA) is located on the 71st floor of the iconic U.S. Bank Tower and features breathtaking 360-degree views of the city. SageGlass was the solution to block harsh Californian sunlight and heat to ensure the guests enjoy their meals, while keeping the view.



71ABOVE RESTAURANT - LOS ANGELES, USA



TIPEE - LA ROCHELLE, 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.

Design & innovation

SageGlass is a remarkable innovation, protected by over 1000 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 detract 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.

The Swiss International Scientific School of Dubai (UAE) uses SageGlass to display messages to its students.



SWISS INTERNATIONAL SCHOOL – DUBAI



Millennium in Switzerland has chosen SageGlass for elegant, sleekly designed buildings that preserve the view to the outdoors and the comfort of their occupants.

“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 OFFICES - 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:
<https://www.sageglass.com/en/visionary-insights/comfort-study-ubisoft>



UBISOFT OFFICES - VILLEURBANNE, 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.

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



SageGlass®

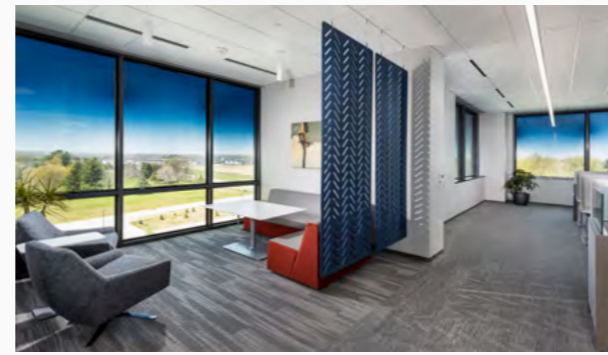
- Glare control without blinds or shades
- Intelligent daylight management
- Maintain view and connection with the outside environment
- Contribution to environmental labels
- Automatic and manual control



SageGlass LightZone®

ALL BENEFITS OF SAGEGLASS WITH ADDITIONALLY:

- Precise glare and heat control
- Excellent indoor color rendering
- Natural light gain in spaces



SageGlass Harmony®

ALL BENEFITS OF SAGEGLASS AND SAGEGLASS LIGHTZONE WITH ADDITIONALLY:

- Elegant visual experience with smooth, seamless tint transitions
- Sophisticated & subtle gradient effect



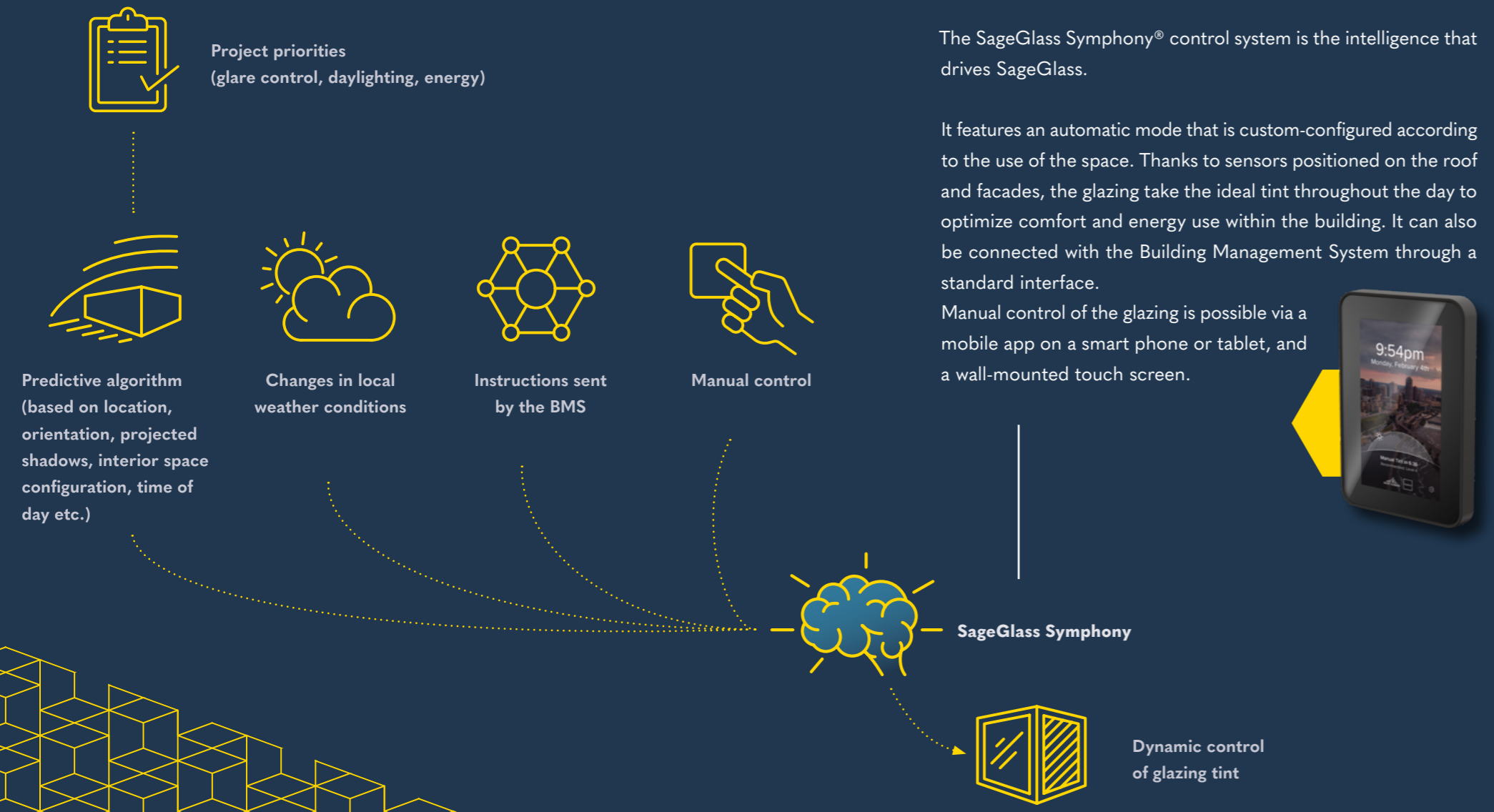
SAMMONS FINANCIAL OFFICES – CRISSIER, USA

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.



MILLENNIUM OFFICES – WEST DES MOINES, SWITZERLAND

Our control system



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.

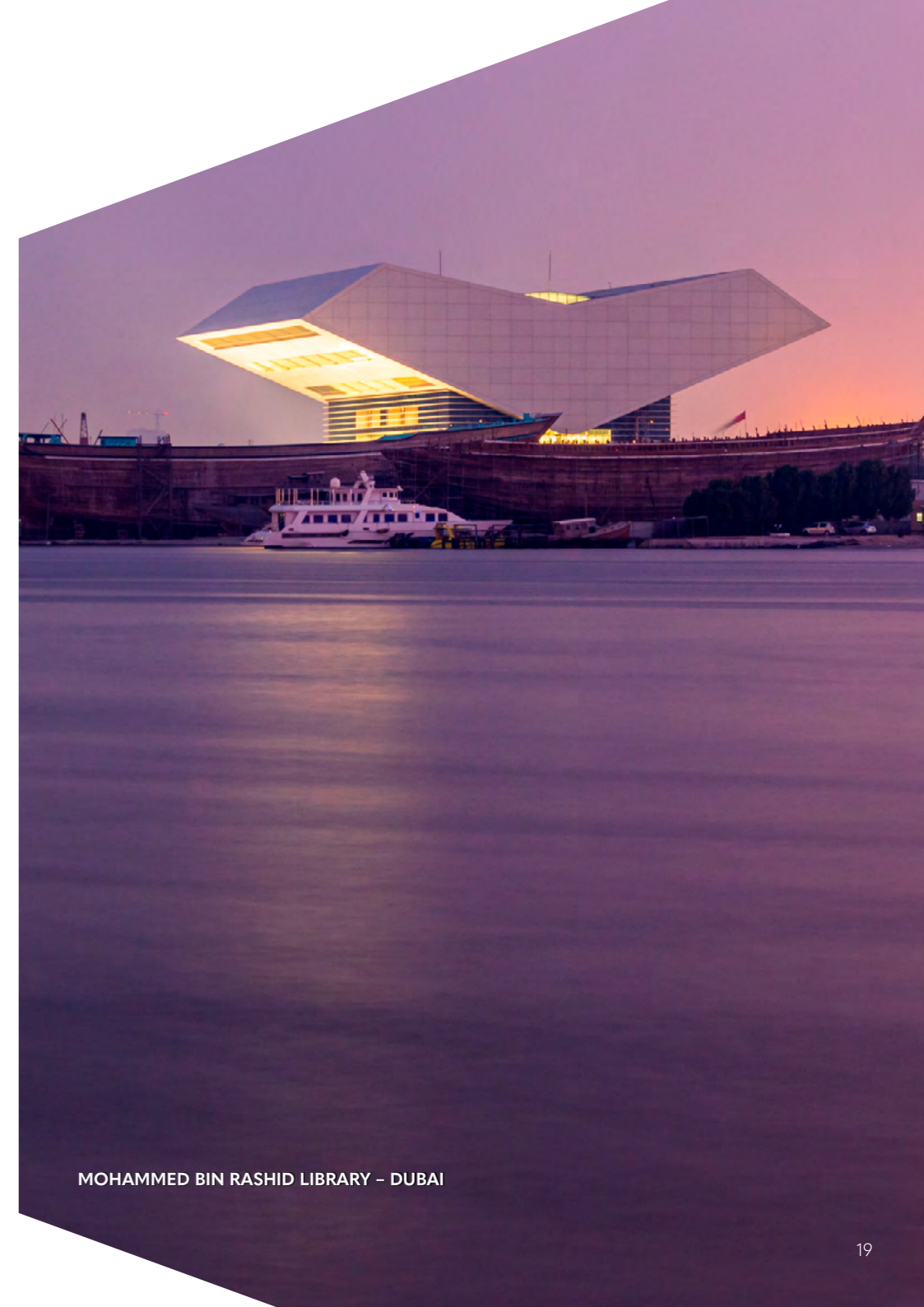
Light and heat are managed by the glazing thanks to 4 tint levels with the following standard characteristics:

Tint	Light transmission	SHGC	Ug value (W/m².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.

* This tint state could be deactivated if needed



MOHAMMED BIN RASHID LIBRARY – DUBAI

Our clients speak about us

Watch our customer testimonials on YouTube and see how SageGlass helped them achieve their goals.



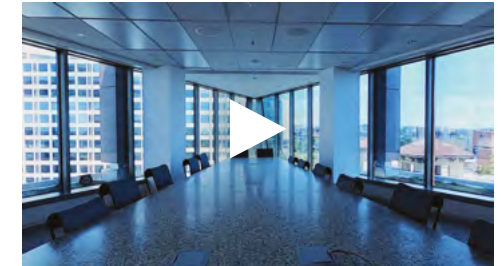
DUBAI HILLS VILLA



TOMBOLA



THE LUMINARY



AMERICAN GEOPHYSICAL UNION

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Why SageGlass?

1 000+
Installations

27+
Countries

1 000+
Patents

SageGlass® is the pioneer of the world's smartest dynamic glass. Electronically tintable SageGlass tints or clears automatically to optimize daylight levels while preventing heat and glare without the need for blinds or shades. SageGlass delivers superior comfort, enhances occupant well-being and saves energy. As part of Saint-Gobain, SageGlass is backed by more than 350 years of building science expertise that only the world leader in sustainable environments can provide.



Learn more about how SageGlass helps customers achieve their goals at [sageglass.com](https://www.sageglass.com).

To find a local product expert in your area, visit:

[sageglass.com/contact](https://www.sageglass.com/contact)



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