SageGlass
SAINT-GOBAIN

LEED v4.1
Green building standards

LEED has become the international standard for the design, construction and operation of high-performance structures. Designers and specifiers are looking for building products which contribute to their LEED v4.1 project goals while delivering optimal performance.

The pioneer of the world's smartest electrochromic glass, SageGlass® is the ultimate connector between the built and natural environments. SageGlass contributes to many of the requirements while offering benefits such the ability to optimize daylight, reduce glare and manage heat – all while maintaining unobstructed views of the outdoors.

SustainableSolutions
CORPORATION

Sustainable Solutions Corporation is proud to support some of the world's most sustainable companies by being their go-to partner for holistic sustainability strategies and individual initiatives throughout these programs.

Integrative Process

Integrative Process
Potential Points: 1

To ensure high-performance and cost-effective project outcomes, an early collaboration with the entire project team is necessary. SageGlass has a dedicated team that can join the project from its beginning to create synergies with each other's knowledge and creativity. We can support you throughout the project, from incorporating SageGlass into an early "simple box" energy model for the Integrative Process credit, up to a complex energy and daylighting analysis that accounts for envelope features and lighting.

Because Building Information Modeling (BIM) is a major breakthrough to improve construction and maintenance processes, SageGlass has also developed BIM objects. These offer detail and precision at a graphic design level. This will help architecture, engineering, and construction service providers develop models to assess energy consumption, lighting, insulation values, and thermal comfort ranges, as well as anticipated operations and maintenance.

Energy & Atomosphere

Minimum Energy Performance
Pre Requisite

SageGlass glazing, when properly integrated into a building design, can generate substantial energy savings thanks to its dynamic properties. By controlling the amount of solar energy entering the building, it reduces air conditioning electricity demand during the hottest times of the day. With this solution, buildings use less energy and cost less to operate. In many cases, they also cost less to build because smaller HVAC (heating, ventilation and air conditioning) systems are required, and the mechanical solar control features such as blinds and sunshades are not needed.

Optimize Energy Performance
Potential Points: Up to 18

When properly integrated into the design, SageGlass can adapt to external climatic conditions and occupants' needs. SageGlass helps minimize the energy required to operate a building, harnessing the sun's energy in the winter and deflecting it during summer. In a typical building, more than 30% of utilized energy goes out the window. SageGlass minimizes this impact by adapting to the external climatic conditions and occupants' needs. SageGlass can minimize energy use by reducing heating loads in winter, air conditioning in summer and electrical lighting all year long. SageGlass has a dedicated team that can join the project from its beginning, helping ensure proper design to achieve energy performance targets.

Building Life-Cycle Impact Reduction (Option 4 – Whole Building Life-Cycle Assessment)
Potential Points: 4

To follow the stringent environmental standards of its holding company, Saint-Gobain, SageGlass has gone through a Life Cycle Assessment process. The results of this LCA are available under an Environmental Product Declaration (EPD) verified by an independent third party. Experienced practitioners can use information from this EPD in place of default data in a whole-building life cycle assessment model.

Building Product Disclosure and Optimization - Environmental Product Declarations
Potential Points: Up to 2

Sharing the goals of the Saint-Gobain Group regarding Environmental, Health & Safety topics, SageGlass has gone through a Life Cycle Assessment process, the results of which are available under an Environmental Product Declaration compliant with international standards as required by LEED and verified by an independent third party. In addition to measuring our impacts, SageGlass has worked hard to reduce our footprint over the years. We have reduced electricity consumption by 75% and natural gas by 60% per square meter of product, providing a pathway for Option 2 optimization. For more information, please review the LCA Optimization section in our EPD.

Building Product Disclosure and Optimization – Material Ingredients
Potential Points: Up to 2

SageGlass has completed a Health Product Declaration (HPD) with materials/health hazard disclosure down to 100 parts per million (0.01%). Health Product Declarations can be accessed via the HPD Collaborative's Public Repository. SageGlass also has completed a Declare label that is Red List Approved as an alternative pathway to meeting this credit.

Additional Information to support your documentation

Building Product Disclosure and Optimization - Sourcing of Raw Materials

Every year, Saint-Gobain publishes its Corporate Social Responsibility report, which is based on the GRI (Global Reporting Initiative) framework. In this report, Saint-Gobain details its environmental policy, including supply chain subjects. Note that CSRs like these are not currently applicable within LEED.

Construction and Demolition Waste Management

SageGlass is custom-designed for each project, reducing construction waste to just packaging materials. These packaging materials used for protection purposes during delivery are mostly made of cardboard, cork, plastic or wood and are recyclable in many areas, allowing for diversion from landfill.

Did You Know?

Daylight is the source of life and essential to our **well-being, development and health**. A recent study by neuroscientists suggested that office workers with windows received 173% more white light exposure during work hours, and **slept an average of 46 minutes more** per night.

SOURCE: World Green Building Council: Health, Wellbeing & Productivity in Offices, The next chapter for green building

Indoor Environment & Quality

Daylight
Potential Points: Up to 3

SageGlass offers the possibility of designing projects with more glass to meet the daylight autonomy targets, while ensuring that the space also meets the targets for minimizing over-lighting and glare control. USGBC issued a LEED Interpretation addendum stating that spaces with an automated dynamic facade system are exempt from the ASE requirement. Automated dynamic facade systems are defined to include dynamic glazing. Demonstrating ASE compliance can be very challenging, so by removing this requirement, SageGlass offers great value to LEED projects.

Thermal Comfort
Potential Points: 1

Through its efficient insulation and dynamic solar control properties, SageGlass contributes to creating thermally comfortable environments both in winter and summer. SageGlass can particularly help to regulate the radiant heat in the space. Note that SageGlass should be mounted in a high-performance airtight framing system with good insulation properties. Triple pane configuration options are also available for higher insulation performance.

Low-Emitting Materials
Potential Points: Up to 3

Glass is inherently a non-emitting source of Volatile Organic Compounds (VOCs). Note that any sealants used inside the weather barrier during installation must be accounted for in the Low-Emitting Materials credit.

Quality Views
Potential Points: 1

SageGlass enables the use of more glass to help achieve a direct line of sight to the outdoors from occupied spaces.

Additional Information to support your documentation

Acoustic Performance

SageGlass can help reduce exterior noise and brings comfort by combining two panes of glass of different thicknesses, or by adding a special acoustic laminate specifically designed to enhance sound insulation. SageGlass can provide Sound Transmission Class ratings that help the project comply with Schools and Healthcare Acoustic Performance credits. Note that the glass should be mounted in a high-performance, airtight framing system with good acoustic properties.

Not all smart glass is created equal

1,300+
Installations

1,300+
Patents

27+
Countries

30+
Years

SageGlass® is the world leader in smart glass. Our electrochromic glass tints and clears automatically to offer all the benefits of glass without the downsides of blinds and shades. Design gorgeous views that optimize daylight and comfort without excessive heat or glare. SageGlass solutions also improve building performance and reduce energy use. As a Saint-Gobain company, SageGlass is part of a group that spans 70 countries and 350 years of building science expertise.

To learn more about our product portfolio visit: sageglass.com/products

Contact your local representative at: sageglass.com/contact

sageglass.com

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