SAINT-GOBAIN

TOUR SAINT-GOBAIN - *France*
©Ph: Laurent Kronental
Arch: Valode&Pistre

THE ESSENTIAL
AUSTRALIA

SAINT-GOBAIN GLASS

GATE:01 FRÖSUNDAVIK - *Sweden*
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SAINT-GOBAIN GLASS

SAINT-GOBAIN

MAKING THE WORLD A BETTER HOME

Saint-Gobain Group's vision is to be the worldwide leader in light and sustainable construction. It's integrated solutions for the renovation of public and private buildings, light construction and decarbonization are developed through a continuous innovation process and provide sustainability and performance.

Saint-Gobain Glass cares about building better for people and the planet by offering glass solutions for façades, windows, interior design and protection that deliver performance and sustainability. We strive to serve and support all construction stake holders involved in new-build and renovation projects.

In every living and working place, wherever comfort, performance and safety are required, we fulfill the needs of our customers, from small contractors and installers to big processors, manufacturers or architects. Our teams are guided by one single ambition: to be considered your preferred partner by staying close to you to anticipate your needs and providing innovative solutions for sustainable construction

OUR PRESENCE FOR YOUR PROJECTS

MANUFACTURING FACILITIES

High performance glass combining energy efficiency and caring about people and the environment.

- Clear and tinted glass
- Patterned glass
- Coated glass
- Laminated glass
- Mirrors

MANUFACTURING FACILITIES FIGURES

- 31 floats
- 14 coaters
- 1 patterned line

THE SAINT-GOBAIN GLASS INTERNATIONAL TEAM

Founded in 1962, the international team represents Saint-Gobain's export business and provides the full Saint-Gobain flat glass range of both, basic glass and processed product, coming from the group's different factories worldwide

LOCAL REPRESENTATIVES

Our sales and technical team across the region is on hand to be by your side at every step of your project.

A dedicated team of experts can provide you with valuable support such as a sustainability analysis, structural calculations, daylighting analysis and acoustic performance calculations for glass during the design stage thereby, helping you choose the most suitable glass options for your projects.

SAINT-GOBAIN GLASS TIMELINE

1665 Creation of the Manufacture Royale des Glaces

1688 Invention of glass table casting

1858 Starts expansion to Europe

1914 Development of the bicheroux process

1926 Development of the boudin process

1938 Expansion to South America

1972 Inauguration of the float glass process

1997 Opening of the first glass float in Mexico

2014 Opening of largest glass manufacturing facility in India

2022 Saint-Gobain Glass launches the first low-carbon glass

TOM PATTERSON
THEATRE - *Canada*
©Scott Norsworthy

GLASS FOR SUSTAINABLE CONSTRUCTION

For us, over the whole life cycle, buildings should enhance people's health and wellbeing while having a reduced footprint on the planet. They should offer better economic value and quality for the developers, owners and occupants.

Our mission is to facilitate the shift towards sustainable construction by offering glass solutions that prioritize both sustainability and performance. This means that we strive to deliver innovation, design and cost-efficiency through better buildings, reduced environmental impacts and improved indoor conditions for the health and well-being of occupants. We understand that sustainable construction is not just about the process but also how the building will be used. For this purpose, we provide our customers with innovative solutions that support their journey towards sustainability, and we advocate for better policies, standards, and practices within the construction market.

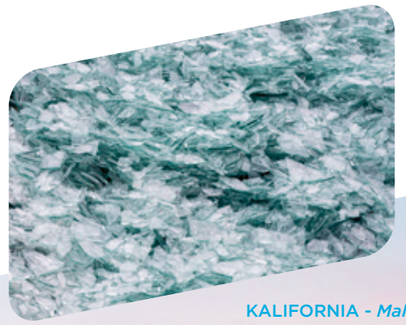
Saint-Gobain Glass offers a complete range of energy efficient coated glass and insulated glazing. With solar control, low emissivity, low maintenance and transparency, our glass meets the requirements of low energy consumption buildings.

The technology behind solar control and low emissivity is a thin transparent coating of metallic oxides, deposited on one or two glass panes of a double or triple glazing unit. Being an invisible thermal shield, this coating retains the heat inside the building and captures the solar energy to keep it outside.

ORAÉ® is the world's first low-carbon glass, with a verified Environmental Product Declaration (EPD) setting a new standard at 6.64kg CO_2 eq./ m^2 (from Cradle-to-Grave for a 4mm substrate).

It is produced by combining high recycled glass content (64% according to ISO 14021:1999) and renewable electricity. As a result, ORAÉ® offers a carbon footprint reduction of 42% compared to our European baseline product.

Intended for use in the glazed parts of a facade, COOL-LITE® ORAÉ® is a perfect response to the stricter sustainability requirements of the building industry without any compromise on technical or aesthetic performance.



KALIFORNIA - *Malakoff, France*
©Ateliers 2/3/4/

CARRÉ INVALIDES - *France*
©Nexity DR

HABITAT 7 - *Sweden*
©Image Krook & Tjäder

COOL-LITE® ORAÉ® is available with our highly selective solar control coatings.

Contact us for more information.

KEY GLAZING PERFORMANCE FACTORS

g-VALUE / SHGC

Total solar energy entering into the building. Value between 0 and 1. The lower the SHGC, the more efficient the glazing is in blocking solar entry.

U-Value

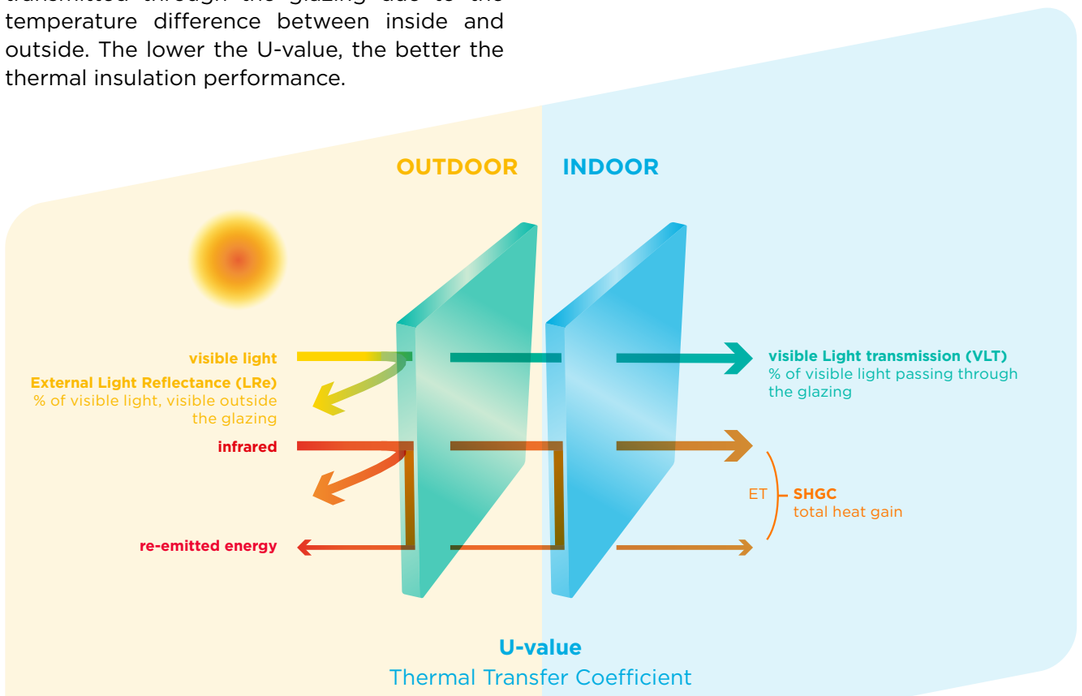
Thermal transfer coefficient. Quantity of heat transmitted through the glazing due to the temperature difference between inside and outside. The lower the U-value, the better the thermal insulation performance.

LSG / SELECTIVITY

Ratio between the light transmittance (VLT) and the solar heat gain coefficient (SHGC). The higher the LSG, the better the glazing is in reducing more solar energy than visible light.

Shading Coefficient (SC)

SC = SHGC / 0.87



U-value
Thermal Transfer Coefficient

UNIQUE PROCESSED GLASS SOLUTIONS

We play our part in designing some of the world's most iconic architectural projects, offering a wide range of innovative glazing solutions for facades. Partners such as visionary architects or contractors striving to deliver the ultimate building envelope have helped establish Saint-Gobain Glass as a key supplier.

GET TO KNOW MORE ABOUT EASYPRO®

EASYPRO®

A revolutionary and unique temporary surface protection developed and offered exclusively by Saint-Gobain Glass. Deposited on to-be-tempered coated glass, it delivers effective protection against mechanical damage as well as ageing, during transport and processing, from deposition of the coating until tempering.

During tempering, EASYPRO® simply burns off without leaving any residue inside or outside the furnace and without any negative impact on the environment or personal health and safety. It improves the optical quality of heat-treated glass and helps to deliver optimal aesthetics.

EASYPRO® offers flexibility and productivity:

- It reduces surface scratches and remakes
- It increases shelf life in stock or after cutting
- It eliminates time to unseal the pack
- It optimizes tempering cycles
- It improves tempering quality
- It reduces the amount of packaging and avoids plastic waste

OUR DIGITAL TOOLS

Calumen®

CALUMEN®
FIND TOMORROW'S GLASS TODAY

Calumen® is a glazing configurator designed for all building professionals, whatever their level of expertise in glass products: architects, designers, engineering offices, consultants, façade makers, window manufacturers, glass processors and general contractors.

- Determine the light, energy, thermal or acoustic performances of your glazing
- Find a suitable glazing for your project based on its required performance values
- Personalize settings such as type of glazing, type of coating, glass and cavity thickness
- Get an illustration of the aesthetic of the façade
- Make comparisons between our products to do the best choice
- Save your glazing configuration for further access at any time
- Calculate the carbon footprint of your glazing*.

*Carbon footprint values presented are estimations based on the Life Cycle Analysis of our European products (A1-A3).

AVAILABLE FOR WORLDWIDE USERS IN 13 LANGUAGES:
https://calumen.com

GLASSPRO LIVE
OUR INNOVATIVE GLASS VISUALIZATION TOOL

GlassPro Live is an on-demand rendering service that enables architects to visualize and compare all Saint-Gobain Glass products, helping them select the most suitable coated glass to achieve their desired aesthetics.

Utilizing spectral rendering technology and real measurement with attention to the aspect fidelity on glass material, our renderings, whether on predefined scenes or custom designs, are created using high-definition 3D synthesis images called "physico-realistic." These images accurately represent the visual properties of the glass under various lighting conditions and environments, providing a precise and detailed understanding of how the glass will appear in real-world scenarios.

With GlassPro Live, architects can experience a new level of accuracy and realism, enabling them to make informed decisions and confidently choose the best glazing solution for their projects."

CALUMEN® GALLERY
OUR PROJECT LIBRARY

- Discover our product range to find the ideal glass for your project which fulfils best your expectations.
- Explore our gallery of projects to see a range of applications on finished projects.
- Find the apps and calculation tools you need in Tools & Resources.
- Navigate through product brochures, a technical glossary and BIM files also available on the page.

Calumen® Gallery

OUR GLASS SOLUTIONS

Average performance data are based on NFRC standards for center-of-glass only in the glazing configuration 6mm / 12mm Air Space / 6mm with coating on surface #2.

									U-Value (NFRC) W/(m².K)		Processing			
COATINGS	**SUBSTRATE**	**Coating position**	**Visible Light Transmittance VLT(%)**	**Solar Heat Gain Coefficient (SHGC)**	**Shading Coefficient SC**	**Light to Solar Gain (LSG)**	**External Light Reflectance LRe (%)**	**Internal Light Reflectance Lri (%)**	**12mm Air**	**12mm Argon**	**Annealed Version Available**	**Screen-printing and enamelling**	**Maximum size (in) max. processed size may vary according to processor**	**IGDB**
EXTRA CLEAR														
COOL-LITE® XTREME 70/33 II	DIAMANT	#2	71	0.30	0.35	2.4	11	13	1.62	1.32	x		6000x3210	21056
COOL-LITE® XTREME 61/29 II	DIAMANT	#2	61	0.27	0.31	2.3	11	15	1.61	1.32	x		6000x3210	21072
COOL-LITE® XTREME 50/22 II	DIAMANT	#2	48	0.20	0.23	2.4	16	18	1.61	1.32			6000x3210	21080
COOL-LITE® SKN 083 II	DIAMANT	#2	76	0.37	0.42	2.1	12	13	1.61	1.32	x		6000x3210	20904
COOL-LITE® SKN 076 II	DIAMANT	#2	71	0.35	0.40	2.0	13	15	1.61	1.32	x		6000x3210	21104
COOL-LITE® SKN 065 II	DIAMANT	#2	62	0.32	0.37	1.9	17	19	1.63	1.32	x		6000x3210	21116
COOL-LITE® SKN 054 II	DIAMANT	#2	53	0.27	0.31	1.96	18	23						
COOL-LITE® SKN 052 II	DIAMANT	#2	51	0.25	0.29	2.04	19	14						
COOL-LITE® SKN 046 II	DIAMANT	#2	41	0.25	0.29	1.64	11	11						
NEUTRAL														
COOL-LITE® XTREME 70/33 II	PLANICLEAR	#2	70	0.30	0.34	2.3	11	13	1.62	1.32	x		6000x3210	21053
COOL-LITE® XTREME 61/29 II	PLANICLEAR	#2	61	0.26	0.30	2.3	11	15	1.61	1.32	x		6000x3210	21068
COOL-LITE® XTREME 50/22 II	PLANICLEAR	#2	47	0.20	0.23	2.2	16	18	1.61	1.32			6000x3210	
COOL-LITE® SKN 183 II	PLANILUX	#2	73	0.36	0.42	2.0	12	13	1.63	1.32	x		6000x3210	
COOL-LITE® SKN 176 II	PLANILUX	#2	68	0.34	0.39	2.0	13	15	1.61	1.32	x		6000x3210	21100
COOL-LITE® SKN 165 II	PLANILUX	#2	60	0.32	0.36	1.9	16	18	1.61	1.32	x		6000x3210	21112
COOL-LITE® SKN 154 II	PLANILUX	#2	50	0.26	0.30	1.9	18	22	1.61	1.32	x		6000x3210	21136
COOL-LITE® SKN 152 II	PLANILUX	#2	49	0.25	0.29	1.9	18	14	1.63	1.32			6000x3210	
COOL-LITE® SKN 146 II	PLANILUX	#2	40	0.24	0.27	1.6	11	11	1.65	1.38			6000x3210	20888
COOL-LITE® SKN 144 II	PLANILUX	#2	41	0.23	0.26	1.8	20	15	1.64	1.32			6000x3210	21160
COOL-LITE® SKN 133 II	PLANILUX	#2	30	0.19	0.22	1.5	13	10	1.66	1.38			6000x3210	
SILVER REFLECTIVE														
COOL-LITE® SKS 143 II	PLANILUX	#2	37	0.20	0.23	1.9	31	11	1.63	1.40			6000x3210	20877
COOL-LITE® KS 154 II	PLANILUX	#2	50	0.33	0.38	1.5	29	17	1.67	1.32			6000x3210	20795
COOL-LITE® KS 146 II	PLANILUX	#2	42	0.28	0.32	1.5	33	19	1.68	1.32			6000x3210	21336
COOL-LITE® KS 138 II	PLANILUX	#2	36	0.25	0.29	1.4	40	19	1.68	1.32			6000x3210	2132
COOL-LITE® KS 134 II	PLANILUX	#2	35	0.21	0.24	1.7	49	22	1.68	1.32			6000x3210	21320
COOL-LITE® ST BRIGHT SILVER	PLANICLEAR	#2	62	0.63	0.72	1.0	34	34	2.69	0.37		x	6000x3210	
COOL-LITE® ST BRIGHT SILVER	DIAMANT	#2	63	0.66	0.76	1.0	35	35	2.69	0.37		x	6000x3210	21228
COOL-LITE® ST 120	PLANILUX	#2	18	0.23	0.27	0.8	32	30	2.51	1.60		x	6000x3210	21280
COOL-LITE® ST 108	PLANILUX	#2	8	0.12	0.14	0.7	41	38	1.90	1.60		x	6000x3210	21296
LOW-E COATINGS														
PLANITHERM® UN II	PLANILUX	#3	78	0.55	0.63	1.4	12	12	1.66	1.38	x		6000x3210	21411
PLANITHERM® XN II	PLANICLEAR	#3	79	0.58	0.68	1.4	11	11	1.69	1.38	x		6000x3210	21424
LUX II	PLANILUX	#3	79	0.68	0.78	1.2	13	13	1.75	1.38	x		6000x3210	2145
ECLAZ II	PLANICLEAR	#3	82	0.66	0.76	1.2	11	11	1.68	1.38	x		6000x3210	20756

DGU values calculated with Planiclear as inner pane, except for extra clear appearance for which low-iron DIAMANT is used. Saint-Gobain Glass reserves the right to change product performance features without notice or obligation *The performance values shown are nominal and subject to variations due to manufacturing tolerances. *COOL-LITE® SKN 154 : LRi=22% * As our processing guidelines and product validation evolves regularly, and for any information related to processing conditions (tempering, bending, laminating...), please contact your TSM or local sales representative. Saint-Gobain recommends for tempered glass to perform a Heat Soak test following EN14179 to reduce the risk of Nickel sulfite (NiS) breakage.

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FOR PEOPLE AND THE PLANET, MAKING THE WORLD A BETTER HOME.

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October 2024

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