



< TOUR SAINT-GOBAIN - France
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THE ESSENTIAL

MIDDLE EAST



SAINT-GOBAIN GLASS



**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

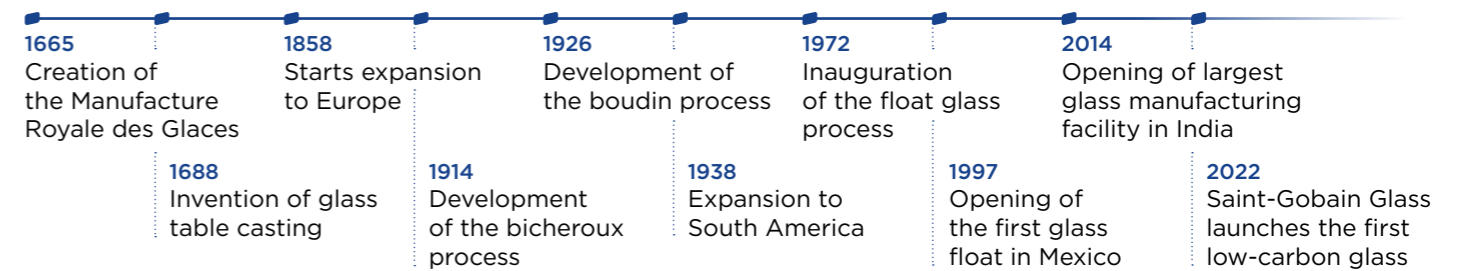
Founded in 1962, the international team represents Saint-Gobain's export business and provides the full Saint-Gobain flat glass range of both, basic glass and processed product, coming from the group's different factories worldwide

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





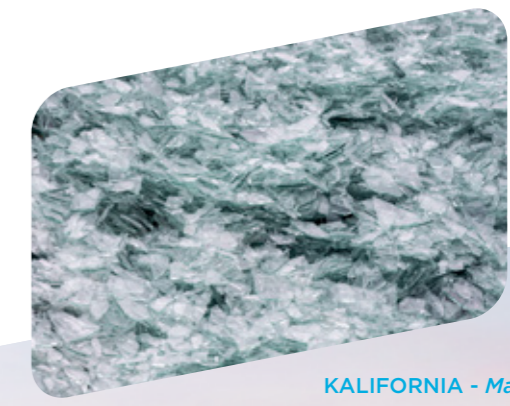
↑
TOM PATTERSON
THEATRE - Canada
 ©Scott Norsworthy



ORAÉ® is the world's first low-carbon glass, with a verified Environmental Product Declaration (EPD) setting a new standard at 6.64kg CO₂ eq./m² (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.

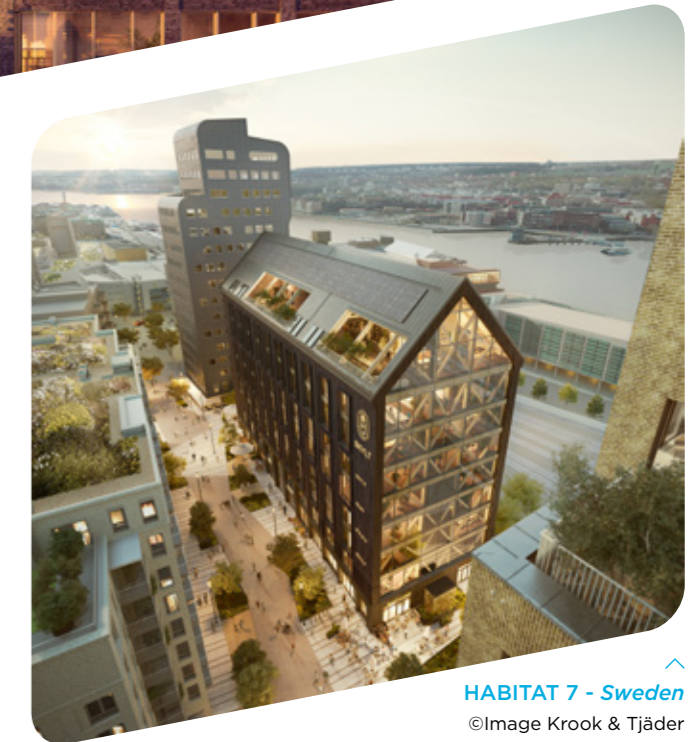
Intended for use in the glazed parts of a facade, COOL-LITE® ORAÉ® is a perfect response to the stricter sustainability requirements of the building industry without any compromise on technical or aesthetic performance.



↑
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.

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.



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

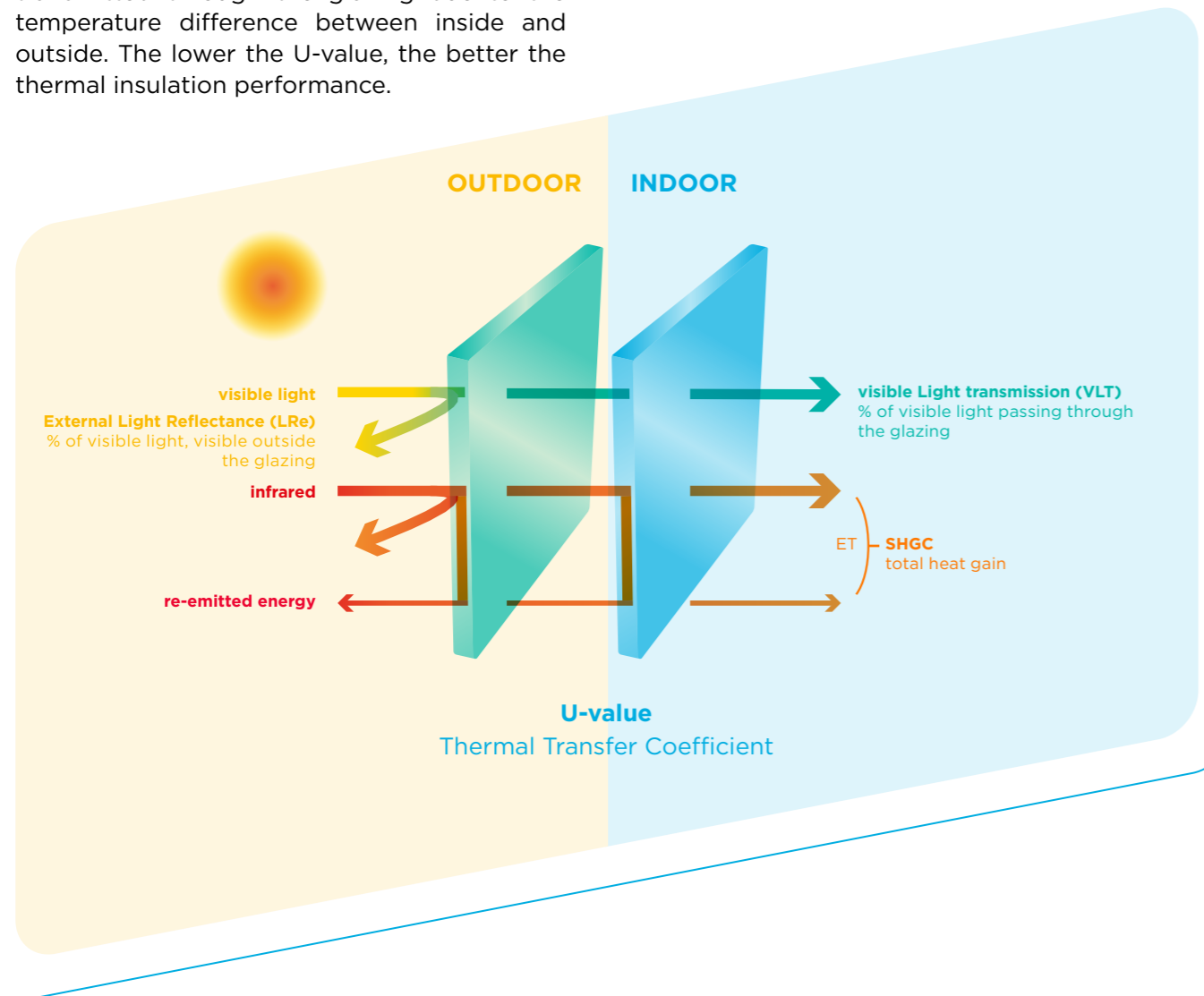
Thermal transfer coefficient. Quantity of heat transmitted through the glazing due to the temperature difference between inside and outside. The lower the U-value, the better the thermal insulation performance.

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)

$SC = SHGC / 0.87$



HOW TO READ OUR COOL-LITE® PRODUCT NAMES MIDDLE EAST

COOL-LITE® XTREME	Extremely selective solar control coatings (triple silver) with reinforced thermal insulation DIAMANT				
COOL-LITE®	XTREME	70	33	II	
	FAMILY Extremely selective solar control coatings (triple silver)	LIGHT TRANSMISSION in double glass unit 6 16 4 mm	SOLAR FACTOR (g-value) in double glass unit 6 16 4 mm	PROCESSING II = to-be-tempered Ø = annealed	
COOL-LITE® SKN	Highly selective solar control coatings (double silver) with reinforced thermal insulation				
COOL-LITE® K	Selective solar control coatings (single silver) with good to reinforced thermal insulation				
COOL-LITE® ST	Solar control coatings offering full flexibility for processing				
COOL-LITE®	SK	N	1	83	II
	FAMILY S = selective K = K-value (Ug-Value / low-E performance)	COLOR IN REFLECTION B = blue G = golden / grey N = neutral S = silver PROCESSING T = temperable L = to-be-laminated	SUBSTRATE 0 = DIAMANT® 1 = PLANICLEAR® 2 = PARSOL® Bronze 3 = PARSOL® Grey 4 = PARSOL® Green 7 = PARSOL® Sapphire Blue	LIGHT TRANSMISSION for 6mm monolithic glass	PROCESSING II = to-be-tempered Ø = annealed
	COOL-LITE® XTREME PREMIUM	EXTREMELY SELECTIVE SOLAR CONTROL GLASS WITH HIGHLY NEUTRAL AESTHETICS		annealed and to-be-tempered versions with comparable performances and aesthetics	
	COOL-LITE® SKN BEST	HIGHLY SELECTIVE SOLAR CONTROL GLASS WITH NEUTRAL AESTHETICS		annealed and to-be-tempered versions with comparable performances and aesthetics	
	COOL-LITE® K II & KNT	SELECTIVE SOLAR CONTROL GLASS WITH NEUTRAL TO SILVER AESTHETICS		to-be-tempered or one stock products	
	COOL-LITE® ST	DURABLE SOLAR CONTROL GLASS WITH FULL FLEXIBILITY FOR PROCESSING		temperable products	
	PLANITHERM® & ECLAZ®	HIGHLY TRANSPARENT LOW-E GLASS WITH NEUTRAL AESTHETICS		annealed and to-be-tempered versions	
	COMPLEMENTARITY				



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.

REGULATIONS GREEN BUILDING CODES - MIDDLE EAST

POSITION BUILDING TYPE	GLASS COVERAGE %	Glass U-VALUE W/m²k	Glass + Frame U-VALUE W/m²k	MAX S.H.G.C	MAX S.C	MIN VLT %	DEGREE CELSIUS	
							OUT TEMP	IN TEMP
Dubai Green Buildings								
Regulations / Specification								
Facade	0-40%	2.1	X	X	0.40	40	N.A	N.A
Facade	40-60%	1.9	X	X	0.32	32	N.A	N.A
Facade	60-100%	1.7	X	X	0.25	25	N.A	N.A
Retail/Showroom		1.9	X	X	0.76	N.A	N.A	N.A
Skylight	0-10%	1.9	X	X	0.32	32	N.A	N.A
Skylight	10 & above	1.9	X	X	0.25	25	N.A	N.A
Trakhees Villa								
Govt. of Dubai								
Facade	0-40%	1.9	X	0.209	0.24	11	N.A	N.A
Skylight	0-10%	1.9	X	0.174	0.2	40	N.A	N.A
Abu Dhabi								
Estidama								
Villa Pear 1 Rating	X	1.8	2.2	0.4	0.46	X	N.A	N.A
Villa Pear 2 Rating	X	1.5	1.9	0.3	0.35	X	N.A	N.A
Ras al Khaimah (Barjeel)								
Facade		1.8	2.2	0.30			N.A	N.A
Skylight		1.8	X	0.30			N.A	N.A
Saudi Arabia								
Saudi SBC 601-CR-18								
Facade	(40-50%)	X	2.38	0.25	0.29	X	N.A	N.A
Facade	(50-100%)	X	1.87	0.25	0.29	X	N.A	N.A
Skylight Non-residential	(0-20%)	X	11.23	0.36	0.41	X	N.A	N.A
Skylight Non-residential	(21-50%)	X	11.23	0.19	0.22	X	N.A	N.A
Skylight Residential	(0-20%)	X	11.23	0.19	0.22	X	N.A	N.A
Skylight Residential	(21-50%)	X	11.23	0.16	0.28	X	N.A	N.A
Kuwait								
MEW Dept.								
Govt. & Commercial	X	X	1.14	0.22	X	X	48	24
Qatar								
Kahramaa Regulations								
Facade	0-40%	2.1	X	X	0.40	25	N.A	N.A
Facade	40-60%	1.9	X	X	0.32	10	N.A	N.A
Facade	60-100%	1.9	X	X	0.25	10	N.A	N.A
Retail/Showroom		1.9	X	X	0.76	N.A	N.A	N.A
Skylight	0-10%	1.9	X	X	0.25	30	N.A	N.A
GSAS Regulations								
GSAS RATINGS		RHG						
4* /5*	157	1.37	X	0.20	0.23	X	X	X
3*		1.6	X	X	0.25	X	X	X
2*		1.8	X	X	0.25	X	X	X
Kingdom of Bahrain								
Facade	<40%	2.1	X	X	0.40	25	N.A	N.A
Facade	>40%	1.9	X	X	0.30	20	N.A	N.A
Skylights & Roof Openings		1.9	X	X	0.25	10	N.A	N.A
Shopfronts and Showrooms		1.9	X	X	0.76		N.A	N.A
Jordan								
Facade	10-40%	3.3	X	X	0.35		N.A	N.A
Facade	40-70%	2.0	X	X	0.30		N.A	N.A
Facade	70-100%	1.6	X	X	0.30		N.A	N.A
Showroom			X	X	0.30		N.A	N.A
Skylight		2.5	X	X	0.75		N.A	N.A

OUR DIGITAL TOOLS



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.



SAINT-GOBAIN GLASS CARES ABOUT BUILDING BETTER
FOR PEOPLE AND THE PLANET, MAKING THE WORLD A BETTER HOME.



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