



# ORAÉ<sup>®</sup> WINDOWS



ORAÉ<sup>®</sup> is a true technical breakthrough from Saint-Gobain Glass, enables the development of the offer for the windows market with the market first low-carbon glass.

The ORAÉ<sup>®</sup> WINDOWS series guarantees reduction embodied carbon footprint of 35 to 40% compared to IGU compositions, with the same coated or laminated glass but on a PLANICLEAR<sup>®</sup> substrate thanks to glass production by combining a very high recycled glass content (cullet) and renewable electricity.



## ADVANTAGES



### SUSTAINABLE DEVELOPMENT

ORAE® WINDOWS series guarantees the reduction of embodied and operational carbon footprint. This is possible through the use of:

- The glass substrate ORAE® which has a verified Environmental Product Declaration (EPD) and is the market first low-carbon glass produced by combining a very high recycled glass content (cullet) and renewable electricity in the whole production process.
- Highly selective glass from the COOL-LITE® SKN 176 ORAE® family with excellent energy performances efficiency, which significantly reduces carbon emissions generated by energy consumption when using the building thanks to its high performance in terms of daylight, solar control and thermal insulation.
- Low-E glass ECLAZ® ORAE® which can significantly reduce heating costs - thanks to the best thermal insulation in DGU to keep the inner warmth of the house inside. It also transmit heat energy of sun, and on frosty days provide additional insulation, allowing to reduce heat loss and support the home heating system considerably while taking care of optimal daylight.



Saint-Gobain Glass products are the first building glass products certified with the latest version 4.0 Bronze in all the five C2C Certified® categories.

ORAE® achieves the highest-level Platinum at product circularity category.

Cradle to Cradle Certified® is a multi-criteria sustainable product certification program that sets a high standard for more sustainable products manufactured in a responsible way.

Each certification level (Bronze, Silver, Gold, and Platinum) confirms compliance with rigorous requirements in five categories:

- Material Health
- Product Circularity
- Clean Air & Climate Protection
- Water & Soil Stewardship
- Social Fairness

## APPLICATIONS ORAE® WINDOWS

Windows and balcony doors in new and renovated residential buildings to improve energy efficiency.

## PERFORMANCES

ORAE® is offering exactly the same aesthetics provides the same performances and quality with a much lower carbon footprint.

	Ug* value [W/m²K]	Light Transmission LT** [%]	Solar factor g**	Reflection outside Lre** [%]	Reflection inside Lri** [%]	Carbon footprint on PLA- NICLEAR (GWP) <sup>1,2</sup> [kg CO2 eq/m2]	Carbon footprint on ORAE (GWP) <sup>1,2</sup> [kg CO2 eq/m²]	Carbon reduction vs. PLANICLEAR® <sup>1,2</sup>
<b>PLANICLEAR and ORAE substrat</b>								
4/16/4 ECLAZ on face #3, 90% Argon	1,1	83	0,71	12	11	33	21	-36%
4/16/4/16/4 ECLAZ on face # 2 i 5, 90% Argon	0,6	77	0,6	14	14	53	35	-34%
6/16/4/16/6 COOL-LITE SKN 176 on face #2 ECLAZ on face #5, 90% Argon	0,5	64	0,35	15	17	66	42	-36%

\* according to EN 673

\*\* according to EN 410

<sup>1</sup> Global Warming Potential (GWP A1-A3 Stages) values with PLANICLEAR® and ORAE® are calculations made with Calumen® for each composition of insulated glazing unit (IGU) on the basis of the standard EN 15804+A2. Detailed environmental data are documented in the available Environmental Product Declarations (EPD) of PLANICLEAR® and ORAE®. Only complete EPD can be verified by an external third party.

<sup>2</sup> All panes of the IGU with the same substrate

**SAINT-GOBAIN**

SAINT-GOBAIN GLASS

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Discover and try  
CALUMEN®



Check our EPD  
of ORAE® (6mm)



Check our EPD  
of ORAE® (4mm)



C2C Certified® Bronze version 4.0  
ORAE® Float Glass  
ORAE® Coated Glass

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