



# PLANITHERM® NEO

*Advanced performance low-emissivity glass*

**PLANITHERM® NEO**

## **ADVANCED PERFORMANCE LOW-EMISSIVITY GLASS**

PLANITHERM® NEO is the most advanced thermal insulation product within the PLANITHERM® family and has been optimised for both double-glazed and triple-glazed applications.

Featuring a new surface coating design and technology, it has been developed in the UK specifically to meet the changing climatic conditions and the needs of the UK's window and door market.

The optimum centre-pane U-value of 1.0 W/m<sup>2</sup>K\* (double-glazed unit (DGU)) is designed to help manufacturers achieve low U-value windows and doors, meeting the needs of homeowners and building designers' demands for highly thermally insulating products.

The higher solar gain (g-value) of PLANITHERM® NEO optimises performance for low U-value products under the British Fenestration Rating Council (BFRC) Window Energy Rating (WER) and Door Energy Rating (DER) schemes.

\* DGU 1.0 W/m<sup>2</sup>K (4mm-16mm-4mm double-glazed unit with 90% argon gas filling, NEO coating on Face 3).



The new surface coating design delivers optimum optical and aesthetic appearance for both double-glazed and triple-glazed applications. It features a neutral colour, lower reflection and higher light-transmission than other products within the PLANITHERM® range.

- **Neutral colour**
- **Low reflection**
- **High light transmission**

Refer to the Technical Specifications on Page 7.



**GLASS  
FOREVER**



PLANITHERM® NEO delivers outstanding sustainability and environmental credentials. Enabled through the Saint-Gobain Glass Forever programme, up to 40% of the glass material used in the manufacture of PLANITHERM® NEO comes from reclaimed and remanufactured pre-consumer and post-consumer glass cullet<sup>1</sup>; without impacting product performance, product quality or optical aesthetics. This reduces the need for raw material extraction, the energy used during manufacture and consequently the embodied carbon of PLANITHERM® NEO.

<sup>1</sup> PLANITHERM® NEO Life Cycle Assessment and Environmental Product Declaration is available to download from: [www.environdec.com/library](http://www.environdec.com/library)

## DOUBLE-GLAZED UNIT

U-value  
**1.0 W/m<sup>2</sup>K**

Light Transmittance  $T_L$   
**73%**

Light Reflectance  $R_{Lc}$   
**20%**

Solar Factor (g-value)  
**54%**

(4mm-16mm-4mm double-glazed unit with 90% argon gas filling, NEO coating on Face 3).

## TRIPLE-GLAZED UNIT

U-value  
**0.5 W/m<sup>2</sup>K**

Light Transmittance  $T_L$   
**59%**

Light Reflectance  $R_{Lc}$   
**27%**

Solar Factor (g-value)  
**42%**

(4mm-16mm-4mm-16mm-4mm triple-glazed unit with 90% argon gas filling, NEO coating on Face 3 and Face 5).



# BENEFITS

## ONE SOLUTION FOR DOUBLE AND TRIPLE-GLAZING

**PLANITHERM® NEO has been developed specifically for both double and triple-glazed applications. With the growth in popularity of triple-glazed windows and doors, the optical quality of coated glass is particularly important for the additional pane of glass.**

## BENEFITS FOR GLASS PROCESSORS

- PLANITHERM® NEO is optimised for both double-glazed and triple-glazed products across a range of residential new build and renovation applications.
- PLANITHERM® NEO is a 'single stock' product; the same version can be used in either annealed or toughened form.
- This significantly reduces stockholdings, reducing working capital, freeing up warehouse space, as well as simplifying logistics and production planning.
- PLANITHERM® NEO has been developed to significantly improve its durability and ease of processing helping to ensure that finished units are of the highest quality.
- The sustainability credentials of PLANITHERM® NEO, demonstrated through the published Life Cycle Assessment (LCA) and Environmental Product Declaration (EPD)<sup>2</sup>, are increasingly recognised as important factors across the construction industry and to homeowners.

<sup>2</sup> PLANITHERM® NEO Life Cycle Assessment and Environmental Product Declaration is available to download from [www.environdec.com/library](http://www.environdec.com/library).

## BENEFITS FOR FABRICATORS AND HOMEOWNERS

### Optical Clarity

PLANITHERM® NEO offers a high level of light transmittance, maximising the entry of natural daylight into the building with no unsightly 'haze effect'.

### Low Reflection

Most homeowners prefer glazing that minimises reflection. The coating technology developed for PLANITHERM® NEO reduces the external reflection visible under a wider range of light conditions. This is especially important for triple-glazing combinations where the additional pane of glass can exacerbate reflection if more reflective glass types are selected.

### Neutral Appearance

PLANITHERM® NEO has a neutral aesthetic appearance; the coating design has been developed to avoid any obvious coloured tints which could detract from consumer satisfaction.

### Enhanced Thermal Insulation

Used in appropriate configurations, PLANITHERM® NEO ensures compliance with current and future building regulation requirements with most frame types. The low U-value is consistent with the industry focus on low U-value windows and doors, whilst the optimised g-value provides performance benefits under the British Fenestration Rating Council (BFRC) Window Energy Rating (WER) and Door Energy Rating (DER) schemes.

### Sustainability and Circularity

PLANITHERM® NEO is manufactured with up to 40% glass cullet.





## ADVANCED COATING TECHNOLOGY

**PLANITHERM® NEO is manufactured in the UK by Saint-Gobain Glass.**

A unique combination of multiple metal oxide layers is applied to high quality PLANICLEAR® clear float glass using a magnetically enhanced cathodic sputtering process under vacuum conditions.

The resultant microscopically thin and transparent metallic coating very effectively reflects long-wave heat radiation back into a room, thereby retaining heat within a building, whilst maximising natural light transmission and natural solar gain.

### APPLICATIONS

PLANITHERM® NEO offers versatility, making it suitable for a wide range of applications, including:

- **Residential new build windows and doors**
- **Residential renovation replacement windows and doors**
- **Larger glazed areas in domestic dwellings such as sliding doors, bi-fold and french doors**
- **Non-residential and commercial buildings**



## THE RANGE

### ENHANCED THERMAL INSULATION

PLANITHERM® NEO is an offline coated low-emissivity glass that can be used as a single version in both annealed and toughened form. Critically, once toughened, the coating retains the same technical characteristics and aesthetic qualities. For applications requiring safety glass PLANITHERM® NEO can be readily toughened to meet the requirements of BS EN 12150.

### LAMINATED GLASS

PLANITHERM® NEO is available as STADIP® & STADIP® PROTECT laminated glass in most common configurations. Laminated glass offers safety and security performance as well as ultraviolet (UV) filtration.

### STOCK SIZES

Thickness	Standard sizes
4mm	3210 x 6000
	3210 x 2550
6mm	3210 x 6000
	3210 x 2550
6.4mm (33.1)	3210 x 2550
6.8mm (33.2)	3210 x 2550



## PROCESSING

**PLANITHERM® NEO must always be assembled into a double-glazed unit (DGU) or triple-glazed unit (TGU).**

For full processing and handling instructions please refer to the document **“Guidance for use Part 3: ‘single-stock’ low-E coated glass”**. Available from Saint-Gobain Glass on request.





## PRODUCT COMBINATIONS

By combining PLANITHERM® NEO with other specialist glass products available from the Saint-Gobain Glass UK & Ireland range, a multitude of high performance, multi-functional glazing solutions can be achieved.



### ENERGY EFFICIENCY: Thermal Insulation

PLANITHERM® NEO is the ideal low-emissivity (low-E) solution for compliance with Building Regulations relating to energy efficiency in England, Wales and the Republic of Ireland (Part L), Scotland (Section 6) and Northern Ireland (Part F).

Thanks to its thermal insulating performance, PLANITHERM® NEO enables a wider range of frame types and designs to meet mandatory maximum and/or area weighted average whole window U-value requirements, affording greater flexibility to architects, specifiers and fabricators.



### ENHANCED SECURITY: Laminated Glass

The high-security transparent layer in Saint-Gobain's laminated glass makes it much tougher to break through than standard glass. Used in an approved window frame, it is designed to meet the official police security initiative 'Secured by Design' standard, and Document Q of the Building Regulations (England) so homeowners can feel safer and more secure in their home.



### NOISE REDUCTION: Acoustic Laminated Glass

STADIP® SILENCE is an acoustic polyvinyl butyral (PVB) laminated glass, which reduces noise whilst also offering the same safety and security characteristics as laminated glass.



### FURNITURE FADE PROTECTION: Laminated Glass

Prolonged exposure to ultraviolet (UV) light from the sun will contribute to homeowners' furniture and curtains fading over time. The PVB interlayer of Saint-Gobain's laminated glass, both our **Enhanced Security** and our **Noise Reduction** laminated glass, blocks out 99%\* of the sun's UV rays.

\* 6.8mm STADIP® glass



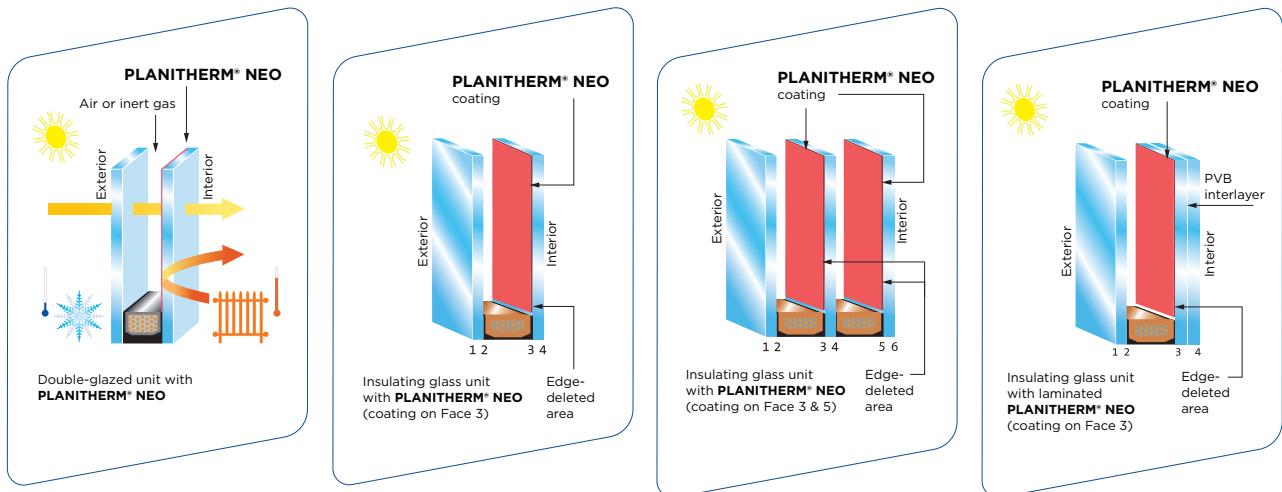
### REDUCE OVERHEATING: Solar-Control Glass

PLANITHERM® NEO provides an effective solar control solution through the optimised g-value, thereby reducing reliance on ventilation and air-conditioning systems.





# PRODUCT COMBINATIONS



## TECHNICAL SPECIFICATIONS

	Double-glazed unit (DGU)		Triple-glazed unit (TGU)		Triple-glazed unit (TGU)	
<b>Internal Pane</b>	<b>PLANITHERM® NEO</b>					
<b>External Pane</b>	PLANICLEAR®	DIAMANT®	PLANICLEAR®	DIAMANT®	PLANICLEAR®	DIAMANT®
<b>Composition in mm</b>	4(16)4		4(12)4(12)4		4(16)4(16)4	
<b>Low-Emissivity Coating Position</b>	Face 3		Face 3 & 5		Face 3 & 5	
<b>Light Transmittance, <math>T_L</math></b>	73%	73%	59%	60%	59%	60%
<b>Light Reflectance, External, <math>R_{Le}</math></b>	20%	20%	27%	27%	27%	27%
<b>Light Reflectance, Internal, <math>R_{Li}</math></b>	20%	20%	27%	27%	27%	27%
<b>Solar Energy Transmittance, <math>T_e</math></b>	48%	49%	34%	35%	34%	35%
<b>Solar Energy Reflectance, External, <math>R_{ee}</math></b>	38%	41%	45%	48%	45%	48%
<b>Solar Factor, g-Value (Argon (90%))</b>	54%	55%	42%	43%	42%	43%
<b>U-value in W/m<sup>2</sup>.K* (Argon (90%))</b>	1.0	1.0	0.7	0.7	0.5	0.5

PLANITHERM® NEO meets the durability requirements of class C of European Standard EN 1096 and is CE and UKCA marked. Light and solar performance according to EN 410.

\* Centre-pane U-values have been rounded in accordance with EN 673.

For Window Energy Ratings, simulators should calculate whole window U-values from first principles using normal surface emissivity ( $E=0.05$ ).

Performance data calculated using Calumen.com and is correct at the time of publishing (1/2/2026) but is subject to change at any time.

 Calumen®



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# LEADING THE INDUSTRY IN GLASS SUSTAINABILITY

## A COMMITMENT TO A CIRCULAR ECONOMY FOR FLAT GLASS

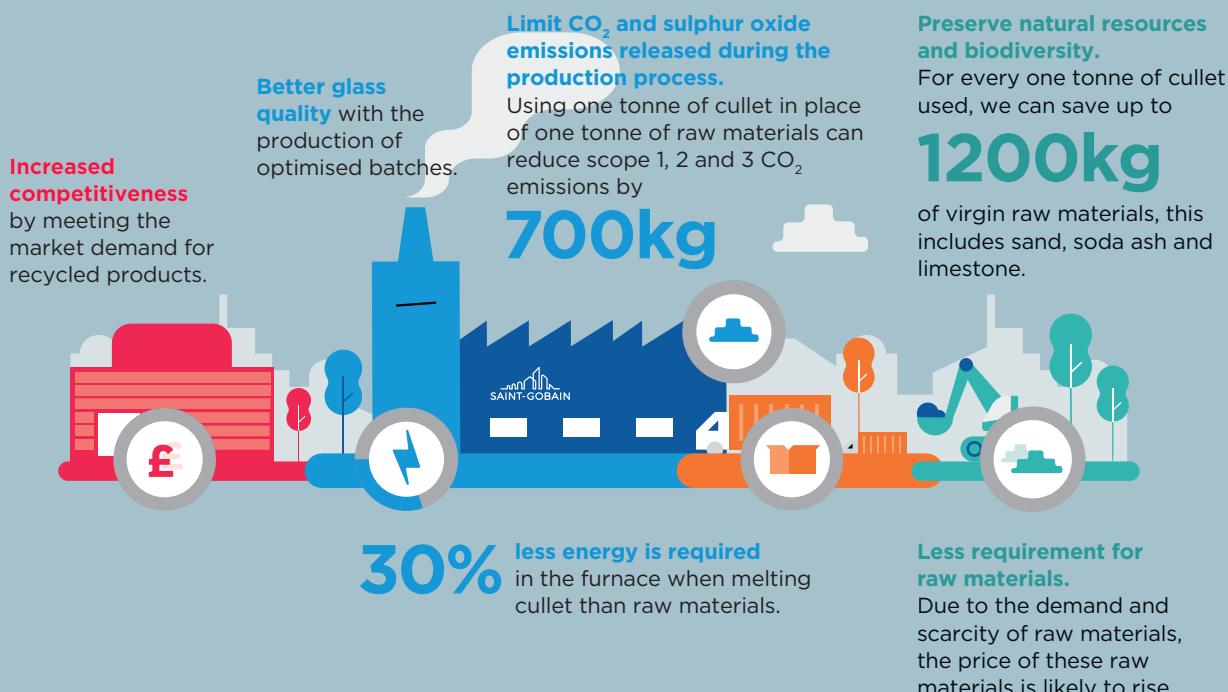
High-performance windows and doors are essential to improving the nation's housing stock, helping homes retain energy, warmth, and remain healthy and comfortable. This is especially important as heating systems transition to electric-based solutions such as heat pumps, supporting the country's net-zero objectives.

More than 80 million windows in the UK's housing stock fail to meet current Building Regulations<sup>3</sup> and need to be replaced. Fortunately, post-consumer window glass is infinitely recyclable when correctly recovered and remanufactured - making it possible to transform old windows into new, high-performance windows.

Saint-Gobain Glass is an industry leader in the responsible reclamation and remanufacture of end-of-life flat glass. Crucially, our Glass Forever programme also includes the recovery of 'post-consumer' glass from old windows, which would otherwise have been typically disposed of in landfills.

In the face of the climate emergency, it is imperative to challenge existing business models to secure a more sustainable future for all inhabitants of our planet. Through the Glass Forever programme, PLANITHERM® NEO benefits from improved Environment Product Declaration (EPD) credentials. Raw material extraction is reduced, and energy consumption and carbon emissions are lower during manufacture.

<sup>3</sup> British Glass and Glass and Glazing Federation - Infographic: A Window of Opportunity



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