

SAINT-GOBAIN GLASS COMFORT

Enhanced thermal insulation

SGG PLANITHERM® ULTRA N

Advanced performance low-E glass with superior thermal insulation properties

SGG PLANITHERM ULTRA N represents yet another advance in low-E coating performance further extending the SGG PLANITHERM family, Europe's best selling low-emissivity (low-E) glass and the UK's leading offline low-E coating brand.

With its optimum centre-pane U-value of 1.1W/m²K (90% argon-filled), coupled with unrivalled neutrality, SGG PLANITHERM ULTRA N comfortably meets the most recent UK Building Regulations, in particular for commercial applications using aluminium or steel frames.

Applications

SGG PLANITHERM ULTRA N offers superior thermal insulation properties for the most demanding of glass specifications, where neutrality and excellent performance are paramount.

Commercial

- Façades
- Windows
- Structural glazing
- Overhead glazing

Domestic

- Windows and skylights
- Patio doors, French doors and other external doors
- Conservatories and sun rooms



Advantages

The advanced aesthetics and superior thermal insulating performance of SGG PLANITHERM ULTRA N provide a new generation of solution for building specifications.

Enhanced Thermal Insulation

Double glazed units incorporating SGG PLANITHERM ULTRA N offer up to three times more thermal insulation than standard double glazing and significantly better thermal insulation performance compared to traditional hard coated low-E products:

- Ensures Building Regulation compliance via the alternative centre pane calculation method for replacement windows
- Greater flexibility in compliance for all frame types

- Reduced condensation on the inner pane
- Environmentally friendly solution, given the lower CO₂ emissions associated with reduced energy consumption
- Considerable reductions in heating bills
- Eliminates cold areas around windows

Neutral Appearance

SGG PLANITHERM ULTRA N is remarkably neutral in both transmission and reflection offering exceptional clarity of appearance. This coupled with excellent light transmittance maximises the entry of natural daylight into the building.

SGG PLANITHERM ULTRA N

Centre-pane U-Value

1.1 W/m²K

(4(16)4 unit with 90% argon gas filling)

Light Transmittance

80%

Light Reflectance

12%

Solar Factor

63%

Description

SGG PLANITHERM ULTRA N is manufactured on SAINT-GOBAIN GLASS UK's magnetron coater. A unique combination of multiple metal oxide layers are applied to high quality SGG PLANILUX 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 light transmission.

Product Range

Toughened Glass

A special version of the product, SGG PLANITHERM ULTRA N II, can be readily toughened to meet the safety glazing performance requirements of BS EN 12150. Critically, once toughened, this product has the same physical radiation properties and appearance as annealed SGG PLANITHERM ULTRA N.

Laminated Glass

SGG PLANITHERM ULTRA N is available as SGG STADIP and SGG STADIP PROTECT laminated glass in most common configurations. Laminated glass offers safety and security performance as well as UV filtration.

Product Combinations

By combining SGG PLANITHERM ULTRA N with other specialist glass products from the SAINT-GOBAIN GLASS range, a multitude of high performance double glazing solutions can be achieved to suit any specification.

Solar Control

The SGG COOL-LITE range presents an extensive range of solar control solutions, designed to reduce heat gain, thereby reducing reliance on additional air conditioning and shading systems.

Low-maintenance Glazing

SGG BIOCLEAR can be placed on the external pane of a unit to add effective self-cleaning properties to a double glazed unit.

Acoustic Insulation

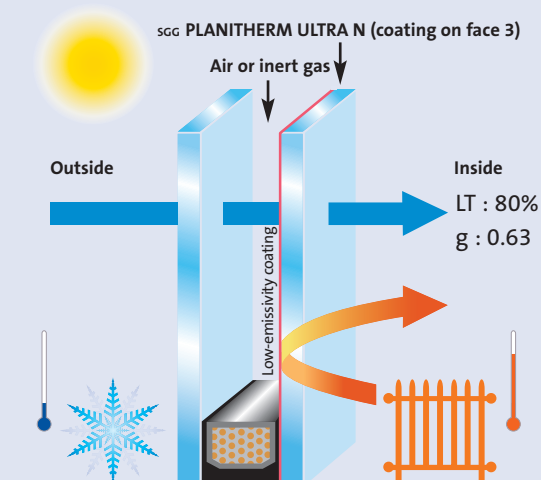
SGG STADIP SILENCE is an acoustic PVB laminated glass, which noticeably reduces airborne and impact noise whilst offering the same safety and security characteristics as laminated glass.

Processing Guidelines

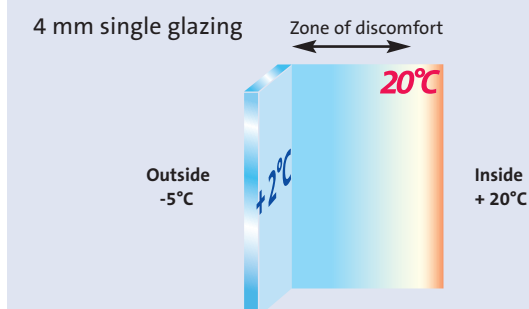
SGG PLANITHERM ULTRA N must always be assembled into a double glazed unit. The coating is generally placed on face 3 though it is possible to place the coating on face 2 without affecting the U-value. The appearance may vary slightly depending on whether the coating is positioned on face 2 or 3, so it is important to glaze with the coating on the same face throughout a particular façade.

For full processing and handling guidelines, please request a copy of the detailed "Guidance for Use low-E Coated Glass" documents and accompanying summary brochure.

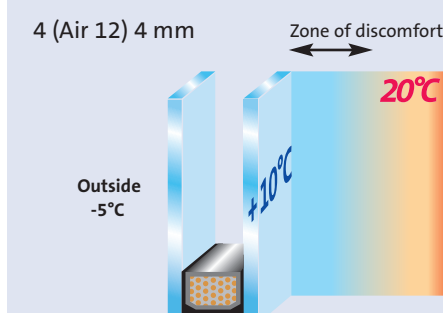
Double glazed unit with SGG PLANITHERM ULTRA N



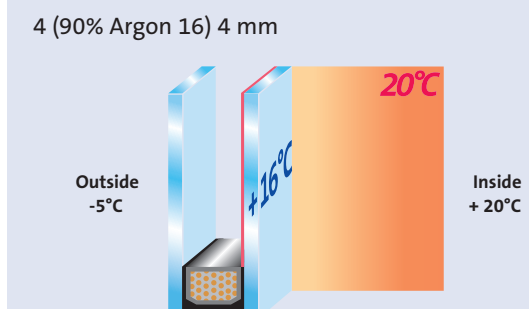
Temperature of the inner pane

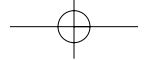


Standard clear float double glazed unit



Double glazed unit with SGG PLANITHERM ULTRA N





U-Values and Building Regulations

SGG PLANITHERM ULTRA N is the ideal low-E solution for compliance with Building Regulations relating to energy efficiency in England, Wales and the Republic of Ireland (Document L), Scotland (Document J) and Northern Ireland (Document F).

Whole window U-values

Thanks to its superior thermal insulating performance, SGG PLANITHERM ULTRA N 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.

Centre pane U-values

With an optimal centre-pane U-value of 1.1 W/m²K (90% argon gas filled) SGG PLANITHERM ULTRA N comfortably meets the alternative centre-pane method of compliance for replacement windows in England and Wales (no worse than 1.2 W/m²K). This alternative method of compliance means that the thermal performance of the frame no longer needs to be taken into account eliminating the necessity for costly testing and/or calculation.

Technical Specifications

SGG PLANITHERM ULTRA N Performance Data				
Internal Pane		SGG PLANITHERM ULTRA N		
External Pane		SGG PLANILUX clear float glass		
Composition	mm	4 -16 - 4	6 -12 - 6	6 -16 - 6
Position of Coating				
• low-emissivity coating		3	3	3
Light Factors				
LT (light transmittance)	%	80	78	78
LRe (External reflection)	%	12	11	11
LRi (internal reflection)	%	12	11	11
UV (UV radiation transmittance)	%	33	29	29
Solar Radiant Heat Factors				
T (Solar radiant heat transmittance)	%	53	50	50
Re (External solar radiant heat reflectance)	%	24	21	21
A1 (Solar radiant heat absorbance/Ext)	%	13	18	18
A2 (Solar radiant heat absorbance/Int)	%	11	12	12
Solar Factor				
g EN 410		0.63	0.60	0.60
Shading Coefficient		0.72	0.69	0.69
U-value				
Air filled cavity	W/(m ² K)	1.4	1.6	1.4
90% Argon filled cavity (EN1279)	W/(m ² K)	1.1	1.3	1.1

Distributor

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SGG PLANITHERM® ULTRA N

Superior performance
low-E glass

CON/WA • KÖLN



SAINT-GOBAIN GLASS COMFORT



Saint-Gobain Glass UK Ltd
Weeland Road, Eggborough
East Riding of Yorkshire
DN14 0FD
Tel: 01977 666100
Fax: 01977 666203
www.saint-gobain-glass.com
glassinfo.uk@saint-gobain-glass.com