

SGG CLIMAPLUS® DESIGN

Decorative low-emissivity double-glazed units

Technical Sheet
United Kingdom

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Decorative low-emissivity double-glazed units

Description

SGG CLIMAPLUS DESIGN double-glazed units combine enhanced thermal insulation with decoration and vision control. One of the two panes of the double-glazed unit is a glass which is either transparent, translucent, body-tinted or patterned, from the SAINT-GOBAIN GLASS DESIGN range.

The other component is a low-emissivity glass from the SGG PLANITHERM range, for thermal insulation.

SGG CLIMAPLUS DESIGN can also bring the additional function of safety by using toughened products such as SGG OPALIT or SGG SERALIT EVOLUTION and security by using laminated products such as SGG STADIP COLOR.

SGG CLIMAPLUS DESIGN is manufactured in accordance with the SAINT-GOBAIN GLASS CLIMALIT process whereby two panes of glass are assembled vertically on either side of a hollow aluminium spacer bar filled with desiccant, then hermetically sealed using the latest dual seal technology.

If the glazed unit does not incorporate low-emissivity glass, it is known as SGG CLIMALIT DESIGN.

Applications

- New-build or refurbishment projects.
- Vision area glazing, partitions, screens, spandrels, etc.
- Residential buildings or in the home: windows, exterior doors.
- Office blocks and public buildings: façades and overhead glazing.

Advantages

In addition to its low-emissivity properties (see "SGG CLIMAPLUS"), SGG CLIMAPLUS DESIGN double-glazed units offer many advantages depending on the type of decorative glass used.

SGG CLIMAPLUS DESIGN: with a translucent appearance

Using a decorative glass such as SGG MASTERGLASS, SGG DECORGLASS, SGG SATINOVO, SGG OPALIT EVOLUTION, SGG STADIP COLOR translucent or sandblasted, offers the following advantages:

- guaranteed privacy in bathrooms, kitchens, bedrooms, hospital wards, meeting rooms, etc.
- maximum light levels.

Each product provides a unique appearance whilst creating a gentle diffused light.

SGG CLIMAPLUS DESIGN with logos, manifestation and patterns

Choosing SGG SERALIT EVOLUTION as a component within the double-glazed unit provides:

- privacy for interior rooms
- vision to the exterior
- distinctive design features.

SGG CLIMAPLUS DESIGN with coloured translucent appearance

Glasses from the SGG DECORGLASS, SGG STADIP COLOR and SGG PARSOL ranges add colour to any application.

Range

Examples of SGG DESIGN		
Effect	Decorative glass	Low-emissivity glass
Translucent	SGG DECORGLASS	Product from the SGG PLANITHERM range (with coating on face 2 or 3)
	SGG MASTERGLASS	
	SGG OPALIT EVOLUTION	
	SGG SATINOVO	
	SGG STADIP COLOR diffusa	
	Sand-blasted glass	
Logos and designs	SGG SERALIT EVOLUTION	
Tinted	SGG DECORGLASS tinted	
	SGG PARSOL	
	SGG STADIP COLOR	

Numerous compositions are available. Depending on the nature of the product, it is possible to place the decorative pattern or processed face inside the double-glazed unit (face 2 or 3) or on the outside (inner side of the building) on face 4. Please contact SAINT-GOBAIN GLASS for further details.

Performance

SGG CLIMALIT DESIGN / SGG CLIMAPLUS DESIGN							
Double-glazing							
External pane		SGG PLANILUX			SGG PLANITHERM TOTAL		
Internal pane (1)		SGG MASTERGLASS	SGG STADIP COLOR 8.8mm	SGG SATINOVO	SGG MASTERGLASS	SGG STADIP COLOR 8.8mm	SGG SATINOVO
Composition (2)		6 (12) 6	6 (12) 8.8	6 (12) 6	6 (16) 6	6 (16) 8.8	6 (16) 6
Decorated surface	face	4	-	3	4	-	3
Low-E coating position	face	-	-	-	2	2	2
Light factor							
LT	%	78	42	77	76	41	76
LRe	%	13	12	14	12	10	12
LRI	%	14	7	14	12	6	12
Energy factor							
T	%	65	33	62	48	25	48
Re	%	12	10	12	20	20	21
A1	%	10	14	15	24	24	14
A2	%	13	42	11	8	31	7
Solar factor g		0,74	0,62	0,71	0,56	0,52	0,55
Shading Coefficient		0,84	0,71	0,82	0,64	0,60	0,64
U-value	W/(m².K)						
Air		2,8	2,8	2,8	1,4	1,4	1,4
Argon 90%		-	-	-	1,2	1,2	1,2

(1) - These values apply to SGG MASTER-CARRE, SGG MASTER-LIGNE, SGG MASTER-POINT, SGG MASTER-RAY and SGG MASTER-LENS: they are approximate values and may vary slightly for each product.

- SGG STADIP COLOR with a white diffusa: Laminated glass with a light diffusing, translucent PVB interlayer. The values indicated are in accordance with standard EN 140 even though this is not strictly applied to this glass. The values are an indication only. PVB RB 47 216500 (SGV 110).

(2) Two white diffusa interlayers.

Performance .../...

SGG CLIMAPLUS DESIGN double-glazed units are nearly 3 times more thermally efficient than standard double-glazed units (U-value as low as 1.1 W/m²K compared to 2.9 W/m²K for a standard double-glazed unit). The coloured products and coloured patterns also provide additional solar control properties.

SGG CLIMALIT DESIGN / SGG CLIMAPLUS DESIGN									
Double-glazing									
External pane		SGG SERALIT EVOLUTION WHITE				SGG SERALIT EVOLUTION WHITE			
Internal pane		SGG PLANILUX				SGG PLANITHERM TOTAL			
Composition		6 (12) 6	6 (12) 6	6 (12) 6	6 (12) 6	6 (16) 6	6 (16) 6	6 (16) 6	6 (16) 6
Enamel coverage (1)	%	30	30	50	50	30	30	50	50
Decorated surface	face	1	2	1	2	1	2	1	2
Low-E coating position	face	-	-	-	-	3	3	3	3
Light factor									
LT	%	63	63	51	51	61	61	50	50
LRe	%	26	19	33	22	24	17	32	21
LRI	%	20	25	23	32	17	22	21	30
UV	%	27	27	20	20	19	19	14	14
Energy factor									
T	%	52	52	44	44	40	40	33	33
Re	%	21	15	26	18	28	23	32	24
A1	%	19	25	23	31	22	27	26	34
A2	%	8	8	7	7	10	10	9	9
Solar factor g		0,59	0,60	0,51	0,52	0,49	0,50	0,42	0,43
Shading Coefficient		0,68	0,69	0,59	0,60	0,57	0,58	0,48	0,49
U-value	W/(m ² .K)								
Air		2,8	2,8	2,8	2,8	1,4	1,4	1,4	1,4
Argon 90%		-	-	-	-	1,2	1,2	1,2	1,2

(1) These are approximate values given for small detail patterns, homogenously covering the glass surface, screen printed with a standard white enamel. These values also depend on the manufacturing conditions.

Installation Guidelines

To assist with the maintenance of SGG CLIMAPLUS DESIGN double-glazed units, it is not advisable to place decorated or processed face on face (towards the outside of the building).

Standards and Regulations

SGG CLIMAPLUS DESIGN double-glazed units meet the requirements of standard BS EN 1279 and will receive the relevant CE marking when it is officially in force.



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