

## SGG ANTELIO

### Solar control glass



#### DESCRIPTION

SGG ANTELIO solar control glass is manufactured by an online coating process. Metallic oxides are applied onto SGG PLANILUX clear glass or SGG PARSOL body-tinted glass during the manufacture of the glass on the float line. The coating is fused by pyrolysis, which gives it a number of properties:

Total integration with the surface of the glass

Strength and stability over time, so the coating can be positioned on the outer face (face 1) or the inner face (face 2) of the glass

Solar control properties and a reflective appearance

#### RANGE

Four different variations:

SGG ANTELIO CLEAR on SGG PLANILUX clear glass

SGG ANTELIO SILVER on SGG PLANILUX clear glass

All the products can be used in façades, with the coating on face 1 or face 2:

On face 1, the façade has a more reflective and uniform appearance producing true and vibrant reflections of the surrounding environment.

On face 2, its appearance and reflection is generally softer and accentuates the features of the façade.

SGG ANTELIO: manufacturing sizes

Antelio Clear in 5, 6 and 8 mm as 3210 x 6000mm

Antelio Silver in 6 and 8 mm as 3210 x 6000mm

#### Glazing for opaque spandrel areas

The overall impression of a fully glazed façade depends on the co-ordination of the vision area glazing and the spandrel area glazing. The external appearance of a glazed façade is also influenced by:

The weather conditions i.e. if the sky is clear or cloudy

The amount of sunshine, relative to the geographical location and time of day

The orientation of the façade and the angle of observation

The local surroundings

The interior of the building (brightness, presence and colour of blinds)

The colour of any framework

The heat treatment of spandrel panels (toughening or heat-strengthening), as the toughened glass may show slight deformations, inherent to the toughening process

Achieving a uniform appearance with SGG ANTELIO

There are several solutions available to specifiers using opaque spandrel panels to achieve façades with a uniform appearance. These solutions are mainly based around positioning the coating used in the vision area on either face 1 or face 2. In all cases samples of the proposed glass for both vision and spandrel area glazing should be viewed on site.

• SGG ANTELIO installed with the coating on face 1 (vision area glazing): SGG ANTELIO can be enamelled on the non-coated face using SGG EMALIT EVOLUTION to give a uniform appearance to the vision areas and opaque spandrel area

• SGG ANTELIO installed with the coating on face 2 (vision area glazing): there are a number of different glazing solutions and opacification processes, in particular those based on the SGG COOL-LITE CLASSIC opacified or SGG COOL-LITE ST enamelled range. In some cases, a double-glazed unit incorporating SGG ANTELIO toughened glass (coating on face 2) and SGG EMALIT enamelled glass is used for spandrel area glazing.

#### New product

Product	Light transmittance LT (%)	Solar factor g	External light reflectance LRe (%)	Internal light reflectance LRI (%)	U-Value (EN 673)  W/ m²K
SGG ANTELIO (DGU 6-16-6)					16mm argon
SGG ANTELIO CLEAR <sup>1</sup> + Planitherm XN <sup>3</sup>	42	0,39	33	27	1,1
SGG ANTELIO SILVER <sup>1</sup> + Planitherm XN <sup>3</sup>	61	0,50	33	29	1,1

External glass	Light transmittance LT (%)	Solar factor g	Shading coefficient (SC)	Selectivity LT/ g	External light reflectance LRe (%)	Internal light reflectance LRI (%)	U- Value (EN 673)	
							W/ (m <sup>2</sup> .K)	
							12mm air	16mm argon
SGG ANTELIO CLEAR	42	0.51	0.59	0.82	28	34	2.8	2.6
SGG ANTELIO SILVER	61	0.61	0.70	1.00	33	33	2.8	2.6
SGG ANTELIO EMERALD	48	0.38	0.43	1.26	22	32	2.8	2.6
SGG ANTELIO BRONZE	22	0.34	0.39	0.65	12	34	2.8	2.6

### PROCESSING CAPABILITIES

Although the main function of SGG ANTELIO is solar control, after processing it may also be incorporated into a single or double- glazed unit for multifunctional glazing.

SGG ANTELIO coatings do not need to be edge- deleted.

The coating can be positioned on face 2 or face 1 of a double- glazed unit.

The SGG ANTELIO coating is designed to withstand toughening and heat strengthening operations or to undergo the heat- soak test, without altering the appearance or performance of the glass. However, when this glass has been toughened or heat- strengthened, it can no longer be cut, edgeworked or drilled. It is therefore essential that these processes are performed before the glass is toughened or heat- strengthened.

SGG ANTELIO can be curved.

SGG ANTELIO can be laminated. The coating is normally positioned on the outer face of the laminated glass. The coating may only be facing the PVB interlayer after consulting our technical department. The specifier must approve and validate the colour differences between laminated and non- laminated SGG ANTELIO.

SGG ANTELIO glass can be edgeworked and drilled using standard equipment. This also applies to SGG ANTELIO for SGG POINT exterior bolted glass applications.

SGG ANTELIO can be enamelled on the non- coated side (SGG EMALIT EVOLUTION). Enamelling can only be carried out on the coated side for specific applications and only after a large sample has been approved.

It is possible to apply an enamelled pattern to SGG ANTELIO by screen- printing (on the non- coated side). However it is not possible to apply an SGG ANTELIO coating to a screen- printed glass.

### Note

As with any coated glass, SGG ANTELIO may distort reflected images to some degree, especially when toughened, assembled into a double- glazed unit, channel glazed etc. Depending on the distance, the angle of observation and the ratio of lighting, the appearance of the glass may show slight variations inherent to the product.

### PRODUCT APPLICATION

Offices and commercial buildings

Schools and industrial buildings

Apartment blocks

SGG ANTELIO glass can be used in most types of façade:

Windows in traditional façades

Curtain walling

Exterior structural sealant glazing

Exterior glass bolted assemblies

Double- glazed applications (coating on face 2 or on face 1)

### ADVANTAGE

High light transmittance: good natural lighting of internal areas.

Reduces solar heat gain: savings in air conditioning.

Many design options for architects: increased architectural creativity using curved, enamelled or screen- printed SGG ANTELIO.

Uniform appearance of facades: using the same SGG ANTELIO enamelled in spandrel panels gives a uniform appearance between vision and non- vision areas

Installation position: the positioning of the coating on either face 1 or face 2 is determined by the performance and appearance required. Coating on face 2 is recommended:

in areas where there is a high level of atmospheric pollution

when SGG ANTELIO is exposed to water running off non- waterproofed concrete

when SGG ANTELIO is used in overhead glazing