

**TITLE**  
 SGG PLANITHERM

**SUBTITLE**  
 Low- E glass



**DESCRIPTION**

SGG PLANITHERM is our Saint- Gobain Glass range of high performance low- emissivity products, incorporating the very latest advancements in thermally insulation glass coating technology. Renowned for its extremely neutral appearance, SGG PLANITHERM very effectively reflects long- wave heat radiation back into a room, thereby minimizing heat loss through a window while also maximizing solar heat gain and natural light transmission. A combination of microscopically thin multiple metal oxide layers are applied to high quality SGG PLANILUX clear float glass using a magnetically enhanced cathodic sputtering process under vacuum conditions. Depending on the composition of these transparent coating layers, several different products can be produced, distinguishable but the thermal performance, spectrophotometric values and processing characteristics.

**RANGE**

Monolithic glass  
 All SGG PLANITHERM products are available in the following standard thicknesses and dimensions:

Thickness	Standard sizes
4-6-8-10 mm	6000x3210 mm 2550x3210 mm 2550x3210 mm

**Double- glazing**

The SGG PLANITHERM range can be combined with many other Saint- Gobain products, permitting a multitude of high performance, multi- functional glazing options including:  
 Self- cleaning and / or solar control glazing  
 Acoustic insulation  
 Safety and security  
 Obscured and / or decorative glazing

**PERFORMANCE**



**PROCESSING CAPABILITIES**

Assembly into double- glazed units:  
 All SGG PLANITHERM coatings must be edge- deleted  
 The coating is always located on the inside of the unit facing the cavity (face 2 or 3)  
 Laminated glass  
 All products in the SGG PLANITHERM range can be laminated  
 The coating must always be located on the outside of the laminated glass  
 The glass cannot be laminated if the coating is in contact with the PVB  
 In all cases, the designer and client must approve the possible aesthetic differences between laminated SGG PLANITHERM products and standard SGG PLANITHERM products

**PRODUCTAPPLICATION**

SGG PLANITHERM is designed for use in all double glazing applications, in all frame types for both new- build and replacement markets:  
 Windows and skylights in residential buildings and private domestic housing  
 Conservatories and patio doors  
 Windows and façades of non- residential buildings

**ADVANTAGE**

Enhanced thermal insulation  
 A double glazed unit incorporating SGG PLANITHERM is up to 3 times thermally efficient than an ordinary double- glazed unit and offers significantly better thermal insulation compared to traditional hard coated low- E products:  
 Considerable reductions in heating bills  
 Reduces condensation on the inner pane

Improved comfort with less drafts and cold spots near glazed areas

Environmentally friendly solution, given the lower CO<sub>2</sub> emissions associated with reduced energy consumption

Facilitates compliance with building regulations for a wider range of frame designs

Neutral appearance

The new generation Planitherm coatings are remarkably neutral in both transmission and reflection as opposed to traditional hard coated low- E products which typically have yellow/ brown tint.

Exceptional Clarity

The <sup>SGG</sup> PLANITHERM range offers a high level of light transmittance, maximizing the entry of natural daylight into the building. These types of coatings also benefit from a lack of the "haze effect" commonly associated with hard coated products.

#### GUIDELINE

The most appropriate method for installing and assembling double- glazing depends on several factors, including: the size of the glass, exposure to external stresses and the type of frame or façade system.

The installation and fixing techniques that are used for the glass must conform to the recommendations of current national standards and regulations.

The positioning and fixing of the glass, the dimensions of channels and the permitted deflection for the frames for double glazed units are not specific to <sup>SGG</sup> PLANITHERM products.

*Note*

The glass must be toughened if the glass units is installed between 2 zones with a temperature difference exceeding certain critical values. Changes in glass temperature are influenced by a number of factors including: climatic conditions, height of the channels, shadows cast from a neighbouring building, the proximity of a heat source or the use of blackout blinds.