Solar Control Glass

Updated March 19

Product Information Sheet

How does it work?

The solar control coating is applied to the internal face of the external glass panel of an insulated glass unit, also known as 'face two' of the glass unit. The metal oxide coating reduces the amount of short wave radiation that travels through the glass unit resulting in the reduction in increased heat levels inside.

Available Glass Thickness

4mm, 6mm, 8mm, 10mm, 12mm

Maximum Glass Size

Maximum Glass Height: 3210mm
Maximum Glass Width: 6000mm

Performance

Light Transmission 70%-18%
G Factor 41% - 18%
Ug Value 1.0—1.1
External Reflection 11%-17%

Typical Glass Specification

Double glazed unit: 6mm TXD outer with Solar Control Coating 70/35/ 16mm Argon Gas Filling / 4mm TXD inner with Low E coating.

Performance of this Solar Control Glass spec

70% Light Transmission
14% Light Reflection Outside
16% Light Reflection Inside
33% Solar Transmission
42% Solar Reflection Outside
25% Solar Absorption
35% G Factor
2.00 Selectivity
1.0 Ug Value

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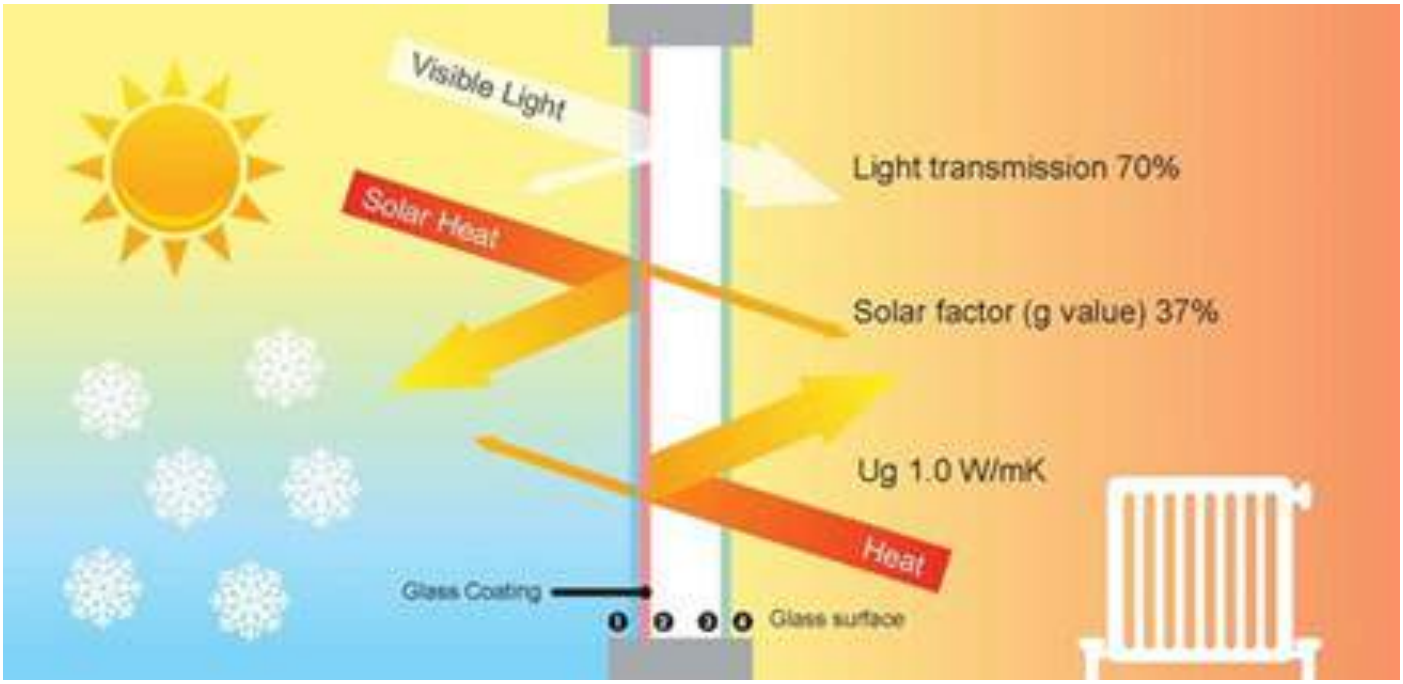

What is Solar Gain?

Solar gain that occurs through glazing is caused by part of the solar radiation absorbed in the glass which is transmitted to the internal environment.

What are the effects of Solar Gain?

Transmitted solar radiation absorbed on internal room surfaces can cause increase in temperature in highly glazed spaces (The Green House effect) and the discoloration/ damage to furniture & artwork.

Why use Solar Control Glass?

- High light transmission
- Low solar factor
- Neutral appearance
- Optimum thermal insulation
- Wide choice of performance

Curved Glass Application

In curved glass applications, Solar Control Glass maintains it's aesthetic, optical and performance properties. Bending constraints are based on coating type, choice of process, radius and concave vs. convex applications.

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Performance Options

70/37
70 % Light Transmission
37% G Factor
1.0 Ug Value
11% External Reflection

70/41
70% Light Transmission
41% G Factor
1.1 Ug Value
11% External Reflection

70/35
70% Light Transmission
35% G Factor
1.0 Ug Value
14% External Reflection

40/23
40% Light Transmission
23% G Factor
1.0 Ug Value
16% External Reflection

51/28
51% Light Transmission
28% G Factor
1.0 Ug Value
12% External Reflection

62/34
62% Light Transmission
34% G Factor
1.0 Ug Value
15% External Reflection

29/18
29% Light Transmission
18% G Factor
1.1 Ug Value
17% External Reflection

Tinting Options

Ultra-Clear
Twilight Green
Green
Grey
Crystal Grey
Midnight Grey
Bronze

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Light Transmission
Light Transmission is the measurable amount of solar visible light that travels through a glazing system.

Light Reflection
The amount of light reflected off of the inner and outer pane of glass.

Solar Reflection/Absorption
Solar Reflection is the proportion of solar radiation reflected back into the atmosphere. Solar Absorption is the proportion of the energy absorbed and re-emitted by the glazing to the interior space.

G Factor
The G Factor is a coefficient for measuring the amount of solar radiation that enters a building through a glazed unit. In simpler terms the G Factor represents the amount of heat entering the building through the glass.

Selectivity
Selectivity refers to the capability of a glass coating to achieve exceptional performance in a selection of areas without compromising the neutral appearance of the glass.

Ug Value
Ug Value indicates the thermal performance of the glass panel.

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How to Specify Solar Control Glass from IQ Glass

With the rise in large glass elevations used in architectural design projects both residential and commercial. In addition, the technical advances in the thermal insulation of glass mean more and more architects include large glass elevations in their designs for a contemporary design aesthetic. As well as using a low e coating within the insulated glass, IQ Glass recommends that a solar control coating should be considered in design. If you would like to include Solar Control Glass on your project just speak to the team at IQ who would be happy to assist.

Speak to the team at IQ

The team at IQ are the experts in our product range. If you are considering using Solar Control Glass on your project speak to the team at IQ who will be able to advise you on the most effective application to areas of the installation you may not have considered.

Get a Quotation

We advise our customers to get a quotation for the option of Solar Control Glass on their installations from IQ. This allows us all to ensure that the preferred product and design is within budget. If it is not we can help you adjust the specification to reach all performance, design and budgetary requirements.

Add us to your NBS Specification

To assist you in specification we have created individual NBS Specification sheets for the majority of our products. These, easy to navigate, documents contain all the vital information needed for specification. They are available for you to complete on your own, alternatively ask your sales representative at IQ to complete this on your behalf.

Place the Order

When ready you (or your client or the builder) can then place the order for your installation with us. A full in-house handover will take place and your project will be passed to the contracts and design team. Once your project deposit is placed we will then undertake full design drawings for the installation and any other additional glazing works.

The project will be appointed a dedicated contracts manager who will oversee the installation process.

Where can I see Solar Control Glass before order?

We have Solar Control Glass available to view at our showroom in Amersham. There are a range of solar control coatings available, affording you different levels of light transmission, external tints and solar control. The most popular of these solar control coatings is a 70/35 solar control coating which maintains the unit's light transmission at 70% for a natural appearance whilst reducing the G factor of the glass unit to 35%.
Solar Control coatings must always be used on an insulated glass unit, either double or triple glazed.

If you or your clients would like to see the product in person just contact us and arrange an appointment at the showroom.

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Downloads and Other Useful Information

Solar Control Glass Product Page

Here you can

- Read more information about our solar control coatings

Click here for the Solar Control Glass product page

Residential Project Gallery

Here you can

- See completed residential projects that used Solar Control Glass
- Get an overview of the various projects in which Solar Control Glass can be applied

Click here for the Residential Project Gallery

Commercial Project Gallery

Here you can

- See completed commercial projects that used Solar Control Glass
- Get an overview of the various ways in which Solar Control Glass can be used

Click here for Commercial Project Gallery

Book A Showroom Visit

Here you can

- Let us know your preferred date and time so that one of the team can accommodate you accordingly

Click here to arrange a showroom appointment