

SGG DIAMANT®

*Extra clear low-iron glass*

Technical Sheet  
United Kingdom

# SGG DIAMANT®

## *Extra clear low-iron glass*

### Description

SGG DIAMANT is a highly transparent extra clear glass, which has very little residual colour. It has a unique appearance and very specific optical qualities.

SGG DIAMANT is a float glass manufactured using the same process as SGG PLANILUX clear glass. Its very low iron oxide content gives it optimum clarity.

### Applications

SGG DIAMANT is designed for numerous applications in which its unique transparent appearance and optical qualities are of particular advantage. It can be used for:

- Museums: for displaying and protecting exhibits with virtually no colour distortion
- Architecture and furniture: for its greater transparency and neutrality than that of SGG PLANILUX clear glass.

#### **Main applications**

- Interiors: partitions, doors, shower screens, display cases in museums, screens in banks.
- Furniture: extra-thick glass table tops, shelves and countertops.
- Shop windows and commercial frontages: Structural glass assemblies to emphasise the transparency and lightness of the façade.

#### **Special applications**

- SGG DIAMANT is suitable for all applications where maximum UV transmission is required: photocopiers, medical equipment etc.
- SGG DIAMANT is also used as the base glass for SGG VISION-LITE PLUS anti-reflective laminated glass.

It increases the transparency of the anti-reflective glass and improves colour rendering.

## Advantages

SGG DIAMANT has the following advantages compared to ordinary clear float glass:

- Excellent transparency: its light transmittance is greater than that of conventional glass, in particular when using extra thick substrates or assemblies
- High neutrality in transmittance: optimised colour rendering and contrast. The colours of objects remain vivid and natural. This quality is very important in applications such as display cases in museums and jewellers etc.
- Virtually colourless: when used in thick configurations (for example: SGG STADIP PROTECT laminated glass), the use of extra clear glass results in a virtually colourless product. The green tinge, inherent of ordinary clear float and more noticeable in greater thicknesses, is substantially reduced
- Brightness and depth: without the green reflection along the edge of the glass, SGG DIAMANT produces a particularly bright, true colour when used in the manufacture of lacquered or enamelled glass (for example: SGG PLANILAQUE EVOLUTION, SGG EMALIT EVOLUTION, SGG SERALIT EVOLUTION). This quality is especially evident when white lacquer or enamel is used.

## Range

SGG DIAMANT is available in a range of thicknesses, from 3 mm to 19 mm.

Thickness (mm)	Thickness Tolerances (mm)	Standard Dimensions (mm)
3, 4, 5, 6	± 0,2	6000 x 3210
8, 10, 12	± 0,3	6000 x 3210
15	± 0,5	6000 x 3210
19	± 1	6000 x 3210

## Performance

The table below gives the comparative light transmittance values for SGG DIAMANT and SGG PLANILUX. The thicker the glass, the greater the difference between extra clear glass and ordinary glass.

The spectrophotometric performance of SGG DIAMANT is given for single glazing, for all thicknesses. The other properties (mechanical, acoustic) of SGG DIAMANT are identical to those of SGG PLANILUX clear glass of the same thickness.

Thickness (mm)	SGGDIAMANT Tl en %	SGGPLANILUX Tl en %
3, 4	91	90
5, 6	91	89
8	91	87
10	91	86
12	91	85
15	90	84
19	90	82

## Performance .../...

SGG DIAMANT®											
Thickness	mm	3	4	5	6		8	10	12	15	19
Weight	kg/m <sup>2</sup>	7,5	10	12,5	15		20	25	30	37,5	47,5
Light factor											
LT	%	91	91	91	91		91	90	90	90	89
LRe	%	8	8	8	8		8	8	8	8	8
LRi	%	8	8	8	8		8	8	8	8	8
UV	%	86	85	83	82		80	78	76	73	70
Energy factor											
T	%	90	90	89	89		88	87	86	85	83
Re	%	8	8	8	8		8	8	8	8	8
Ri	%	8	8	8	8		8	8	8	8	8
A	%	2	2	3	3		4	5	6	7	9
Solar factor g		0,91	0,90	0,90	0,90		0,89	0,88	0,88	0,87	0,86
Shading Coefficient		1,04	1,04	1,04	1,3		1,02	1,02	1,01	1,00	0,99
U-value	W/(m <sup>2</sup> .K)	5,8	5,8	5,8	5,7		5,7	5,6	5,5	5,5	5,3

## Processed Product Variations

SGG DIAMANT is a float glass. It can therefore be processed in the same way as SGG PLANILUX clear float glass.



*Central museum Utrecht, The Netherlands  
Architect : Van Diemen*

## Installation Guidelines

The installation possibilities and recommendations for SGG DIAMANT glass are identical to those for SGG PLANILUX clear glass.

## Standards and Regulations

SGG DIAMANT extra clear float glass conforms to standard BS EN 572-2 and carries the relevant CE marking as required.