dualseal
a vandaglas company

silk screen printed glass

Description
Silk screen glass is manufactured by screen printing a ceramic enamel design onto float glass which is subsequently toughened or heat strengthened, during either process the enamel is permanently fired onto the glass surface.

Manufacture
Several stages of processing are required to screen print, beginning with the submission of finished artwork or alternatively, drawings or ideas from which we can supply the designs. Once the designs are transformed into photo positives, they may then be reproduced on one or more fine mesh screens, depending on the number of colours required. Ceramic enamels are forced through the pattern in each screen to deposit enamel onto the glass surface, which is then dried under infra-red lamps and heaters, after which, the glass is toughened. During the toughening process the enamel softens and fuses with the glass surface, which on cooling forms a permanent, durable finish.

Manufacturing Dimensions

Dualspan on clear glass	Glass thickness mm	Max long edge mm	Max short edge mm	Max area m^2
	6 to 12	4800	2800	8

Enquiries outside the scope of the above table are welcome. There are limitations on the minimum glass thickness that may be used in large sizes, since the glass must be able to sustain any applicable live loads and be practical and safe to process.

Shapes
Certain shapes are possible to process, please submit enquiries. A rigid template may be required for irregular or asymmetrical shapes.

Dimensional Tolerances
The tolerances on length and width of 6 to 12mm float glass are ≤ 3000mm ± 2mm, > 3000mm ± 3mm.

Flatness Tolerance
During the heating process the glass oscillates back and forth on ceramic rollers and may reach a temperature in excess of 640 degrees Centigrade, which is beyond its' softening point. At the end of each oscillation the glass stops moving momentarily and at this point it may sag slightly between the rollers, resulting in a phenomenon known as roller wave. The maximum allowable roller wave is 0.2mm for float glass products of 6 mm thickness and above. Roller wave will be visible, when viewed outside in reflection. Due to the nature of the toughening process a certain amount of bow may be induced into the glass, which can be measured by supporting the glass vertically, at its quarter points, the bow is the difference between the true vertical and the concave surface of the glass. The overall bow is a maximum of 2mm per linear metre.

Work on Silk Screen Glass
All work on Screen printed glass must be carried out prior to the toughening process. Silk Screen Printed Glass Any attempt to cut or process the glass after toughening will result in breakage. Edgework is an arriss, as standard. Where holes, cut-outs and notches are required, enquiries are welcome.

Colours
Screen printed glass is available in most RAL colours. Colours may also be selected from B.S. 5252 or a Pantone reference. A wide range of solid and translucent colours are available including acid etch and clear enamels.

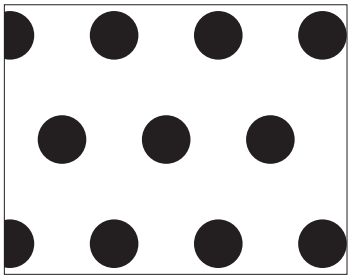
Quality
Screen printed toughened glass is manufactured and tested to comply with EN 12150: parts 1 & 2: Glass in building. Thermally toughened soda lime silicate safety glass, and EN 12600: Glass in building - Pendulum test - Impact test method and classification for flat glass.

Glazing

The installation of screen printed glass should be in accordance with B.S. 8000: Code of Practice for Glazing and B.S. 6262: Glazing for Buildings. Screen printed glass may be produced as single panes, laminated or included within multiple glazing units.

Typical Print Designs

Many different designs are available, the most common of which are a standard dot matrix or line coverage, seen in the following pictures, which may be included for additional solar control, privacy or modesty.



50% Dot matrix coverage

50% line coverage

Bespoke designs often require additional artwork in order to produce to specific dimensions.

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