



ESG Privacy Glass

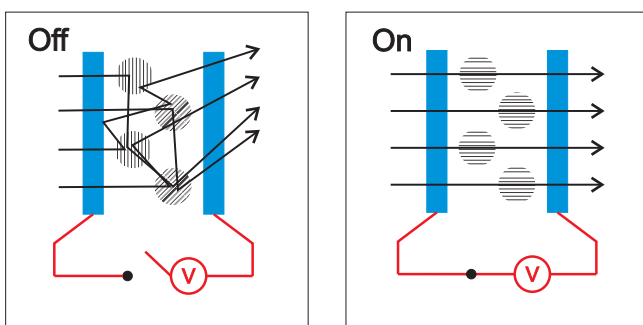
Privacy on demand

Where discretion is vital, ESG Privacy Glass gives you the choice of privacy or the public gaze at the flick of a switch. Normally a diffused white which acts as a screen, this LCD glass can be made transparent simply by passing an electric current through it.

With the power off, liquid crystal molecules in the Privacy film are randomly oriented so that incidental light is scattered, making the glass opaque; but when electricity is applied, the liquid crystal molecules line up and, as light passes through it, the Privacy film becomes clear.

ESG Privacy Glass products are available in custom sizes and shapes, making it an ideal choice for architects and designers when creating conference rooms, nurseries, and medical consulting rooms.

In its white state, LCD glass even becomes the perfect backdrop on which to project presentations, without the need for a separate screen.



It can also be used in residential areas, security windows and beauty salons – just about anywhere you might need a little privacy.

Switchable glass was applied in the project of Maybach Landaulet windshield recently to protect driver and passenger's privacy, security as well as offering good light transmission condition in the car.

Specifications:

- From a cloudy white translucent barrier to an optically clear state with a flick of a switch.
- Can be applied to the inside of glass or plastic.
- Allows architects and contractors to provide cost-effective creative design concepts with engineering flexibility.
- Can be applied to curved surfaces, cut into odd shapes, or even hole-punched to accommodate specific display applications.
- Flexible size up to 1,422 mm by 3,048 mm



Essex Safety Glass Ltd., Unit 1-3 Moss Road, Witham, Essex CM8 3UQ

Tel: 01376 520061 (10 Lines), Fax: 01376 521176, Email: sales@esguk.co.uk, Web: www.esguk.co.uk

Technical Specification



TECHNICAL DATA

GLASS COLOR:	Clear, bronze, grey, green tint etc.
GLASS TYPE (All laminated):	Annealed, heat strengthened, tempered
THICKNESS:	Interior panels from 9.5 mm to 25.5 mm Exterior panels available in insulating glass unit
SIZE:	Up to 1,422mm x 3,048mm
SHAPE:	Any shape, including holes anywhere
ENVIRONMENTAL:	Storage -20°C to 70°C Operation -10°C to 70°C
ELECTRICAL:	Driving voltage 65 ± 5 volts A.C. Current less than 200 mA/sq. m Power less than 10 watt/sq. m
SWITCHING TIME:	Approx. 100 milliseconds at room temperature
OPTICAL:	Transmission 75% View angle approx. 140°

ESG PRIVACY GLASS - EXAMPLES OF OPTICAL PERFORMANCE*

	8 mm Clear ESG Privacy Glass Power ON Fig. 1	8 mm Clear ESG Privacy Glass Power OFF	6 mm Clear Float Glass Comparing with Fig. 1	6mm Frosted Glass Comparing with Fig. 1
Visible Light Transmission %	80	0.6	90	80
Clarity %	95	4	99	14

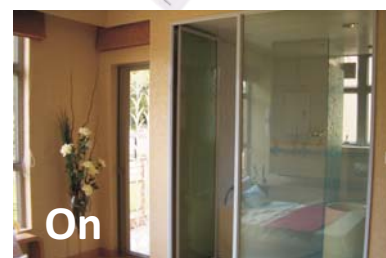
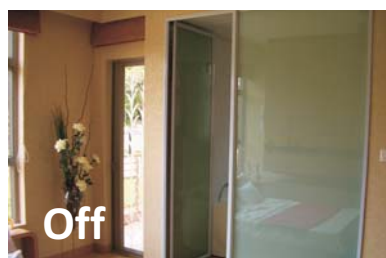
*Value are nominal (within 3%) for a 3 mm x 0.8 EVA x 3 mm Panel construction

STANDARDS

Toughened Glass: manufactured in accordance with the latest standard 'Glass in building – thermal toughened sodalime silicate safety glass BS EN 12150 : (Parts 1 & 2) : 2000, incorporating 'Glass in building - impact test BS EN 12600 : 2002' and 'Glass in building – four point bending test BS EN 1288-3 :2000'.

Laminating: conducted in accordance with 'Glass in building – Laminated glass and laminated safety glass – BS EN 12543 (Parts 1-6:1998 and BS EN 14449:2005).The EVA interlayer is manufactured in accordance with 'UNI EN ISO 12543-4:2000' and is certified by the manufacturer.

Safety: ESG TuffLam satisfies all safety glazing requirements of BS 6262 : Part 4 : Safety related to human impact, Regulation 14 of the Health and Safety at Work Act as well as Approved Document N of the Building Regulations. It is particularly suited to areas where enhanced performance is required.



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