

PRIVA-LITE

Modularity on demand

INTIMACY • TRANSPARENCY • COMMUNICATION

PRIVA-LITE is a laminated glass with a liquid crystal film allowing immediate switching from transparent to translucent.

PRIVA-LITE is a unique solution in space management by way of instantaneous control of opalescence (transparent / translucent) and dynamic (back) projection of videos and images.



Modular and active architecture



Dynamic support for communication



Intimacy and confidentiality control



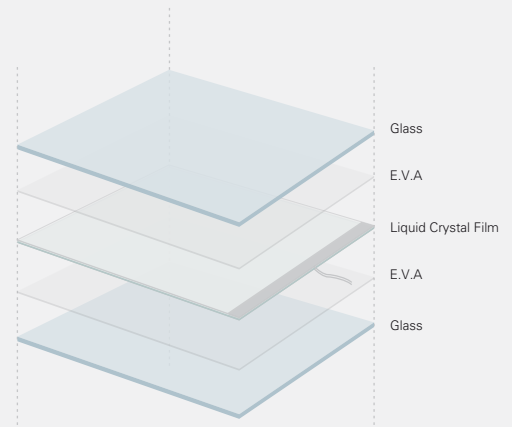
TECHNOLOGICAL PRINCIPLE

PRIVA-LITE is an active glass which, under the effect of an electric current, switches from translucent to transparent with no alteration of light transmission.

Two layers of glass (planilux ou extra clear) encapsulate a liquid crystal (LC) film inserted between two EVA panes. This LC film is constituted by two PET films coated with a transparent metallic deposit and laminated together thanks to a very fine layer of liquid crystal gel.

Under a 100 volts alternative current (50Hz), the liquid crystals orient themselves in the same direction. The film – at first translucent – becomes instantaneously transparent!

In its translucent state, PRIVA-LITE offers an ideal (back) projection screen.



DIAGRAM

Diagram based on a standard assembly as a simple glass-pane.

SIZE

Standard maximum size of 1000 x 3000 mm with one LC film, or 2000 x 3000 mm with two LC films next to each other in a same pane.

THICKNESS

Standard: 12 mm
Others: from 8 to 22 mm

CUTTING

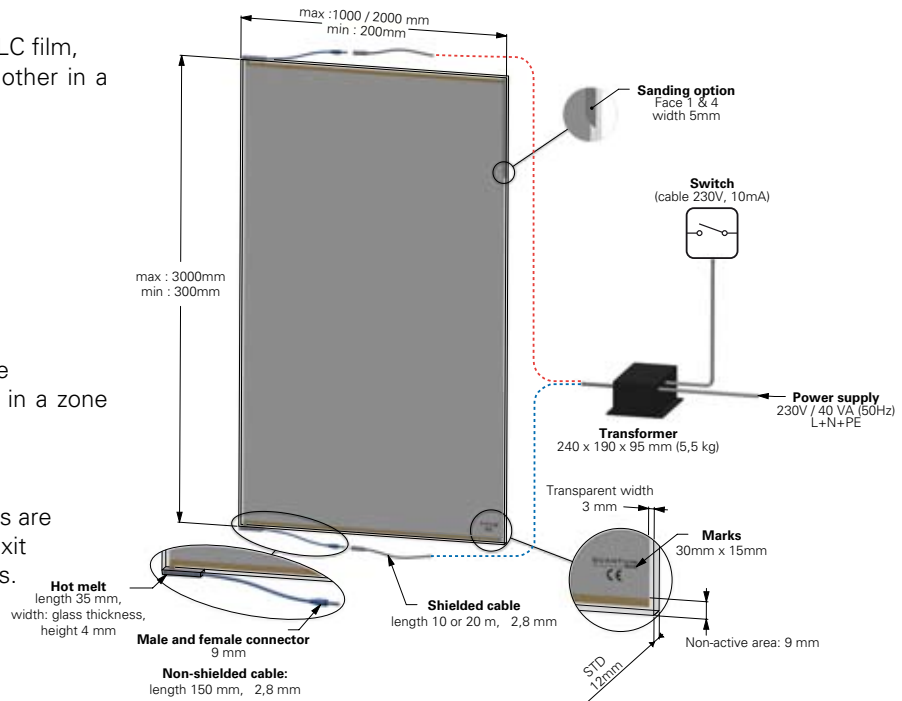
The glazing is delivered in the required dimension. No further cutting or drilling is possible. In the event of a hanging screen, the anchor holes have to be drilled previously during production and located in a zone without film.

ELECTRODES AND CABLE EXITS

Depending on the size of the glass-pane, the electrodes are positioned on the opposite or the same side with the exit of the cables in the corners or at the center of the sides.

TRANSFORMERS

Standard: 240 x 190 x 95 mm, 5.5 kg
Other: 240 x 190 x 120 mm, 10 kg, for multiple panes



PERFORMANCES

	Simple glazing PRIVA-LITE® 55.4 (12mm)		Double glazing PRIVA-LITE® 55.4 (28mm)	
	ON	OFF	ON	OFF
Light transmission*	77%	76%	69%	68%
Light reflection*	19%	18%	23%	23%
Solar factor*	63%	64%	59%	59%
Ug (W/m²K)	5.6 to 5.8	5.6 to 5.8	2.6 to 1.1	2.6 to 1.1
Haze (level of blur)*	max 7.5%	min 90%	max 7.5%	min 90%

* The spectrophotometric data are given with a tolerance of +/- 2%

CLAUSE OF PARTICULAR TECHNICAL SPECIFICATIONS

Glazing product with controlled opalescence can be made transparent by applying a 100V AC electrical current, with a haze level of 7,5% in its transparent state and 90% in its translucent state. The luminous transmission is the same when transparent or translucent.

APPLICATIONS

Interior/exterior partition, door, security glazing, projection screen, shop front, glass floor...

CUSTOMISATION OF THE GLAZING

COMPOSITION

Standard 55.4 (12 mm thickness) laminated glass, also available in double glass unit.

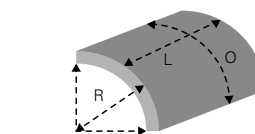
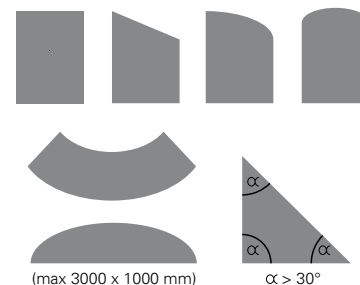
Can be composed of glass that is tempered, coloured, screen printed, bended ...

Can be used as the inner sheet of a double-glazing with all of the products from the range of glazing from SAINT-GOBAIN (Ultra N, Cool Lite, Antelio, Stadip protect, Stadip Silence, Contraflam...) and combined with panels from the range of product QUANTUM GLASS™ (ELECTROCHROME, PLANILUM, LEDinGLASS or E-GLAS).

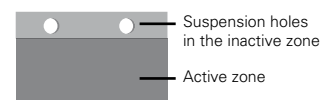
SHAPE

All of the standard shapes, except complete circles as well as shapes with angles inferior to 30°.

The panes can be curved, have a serigraphy or be sand-blasted.



L : Length / Height max : 3000 mm
O : Girth max : 1000 mm
R : Radius mini : 2000 mm



INSTALLATION

TYPE OF FRAME / FIXING

- Fixed, opening or sliding frame
- Possible to hang (drilling over the non active part)
- Use only untreated hardwood support blocks (packers)
- Only the Multisil silicone is approved (provided on request by QUANTUM GLASS™)
- Any material in contact with the edge of the glass must be checked by QUANTUM GLASS™ for compatibility

MAIN PRECAUTIONS FOR USE AND IMPLEMENTATION

- Switch the glazing off at least once per day. If necessary an electronic timer can be provided
- Intended exposure of the glazing to temperatures exceeding 60°C or below -20°C will require a specific analysis for the application of the glazing
- Prevent all pressure on the surface of the panel, over the hotmelts and the cables
- The transformer can be located remotely, but must remain accessible (maintenance)
- The control can be operated by a standard switch (230V, 50 Hz) directly on the transformer, or via a remote control
- The installation has to respect the current electrical regulations and must be performed by a certified electrician

TECHNICAL DATA

Operating voltage	100 volts (50 Hz)
Power	7 watts/m ² when «ON». 0 watts/m ² when «OFF»
IP	IP X5 for the glass, IP X7 in a specific configuration, IP 42 for the transformer.
Security to shock	55.4 version equivalent to a laminated glass (EN 12600, level 1B1)
Electrical classification	Class I (class II available on demand)
Standards and certification	CE... - Certification list on demand

GUARANTEE

5 year functioning guarantee. The guarantee is granted upon respect of the implementation instructions and if a certified QUANTUM GLASS™ installer has conducted the installation.

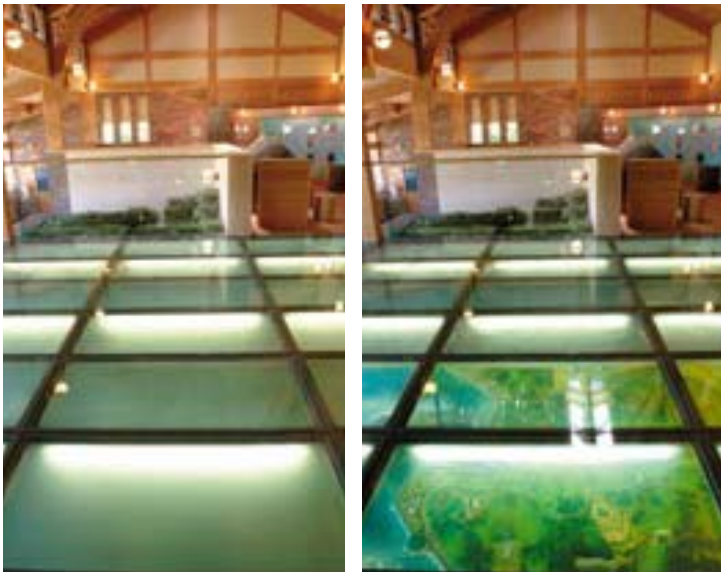
PRIVA-LITE, A SUSTAINABLE HIGH-PERFORMANCE SOLUTION

- Durability and reliability over time
- Unparalleled level of translucency and transparency
- Light transmission almost identical in the transparent and translucent states
- The best projected or back-projected image resolution on the market
- Instantaneous and silent change of state via simple command
- Low power consumption
- Improved security against theft and vandalism
- International certificates
- 5 years guarantee

QUANTUM GLASS™ - AN ORGANISATION AT YOUR SERVICE

Our mission is to facilitate the creation of cutting-edge architectural projects and products that excite emotion and push back the boundaries of creativity.

- A dedicated, international commercial network
- Places for reflection and information sharing
- An international network of local, certified installers
- A technical engineering office at your disposal to enhance your creativity and concept of your choice
- Training at your disposal on demand
- A GLASS HOUSE – a 400 m² showroom in Paris
- The Saint-Gobain guarantee, a world leader in the glass industry



Glass floor (Japan)



Media front (Channel Tower – Tokyo)

SELECTED REFERENCES

Chanel building-Ginza at Tokyo by Peter Marino (2008)
Volvo Road Show (2006)
Lisbon Museum
Siam Reap international airport (Cambodia) by Alain Dupuy

Perret tower at Amiens by Thierry Van de Wyngaert (2005)
High speed train ICE (Germany) and AVE (Spain)
The pavilion of metamorphoses, by Electronic Shadow (2010)