PRIVA-LITE® is a laminated glass with a liquid crystalline film allowing immediate switching from translucent to transparent. PRIVA-LITE® is a unique solution in space management by means of instantaneous control of opalescence (translucent / transparent) and dynamic (back) projection of videos and images.

Switchable glass for modular partitioning and PRIVACY management
PRIVA-LITE®

MODULAR AND ACTIVE ARCHITECTURE

DYNAMIC SUPPORT FOR COMMUNICATION

INTIMACY AND CONFIDENTIALITY CONTROL

TECHNICAL FILE | PRIVA-LITE®

Diagram showing layers of Glass, EVA/PVB, Liquid Crystal foil, EVA/PVB, and Glass.
**PRIVA-LITE® FEATURES**

**TECHNOLOGICAL PRINCIPLE**

**SIZE**
- **PRIVA-LITE CLASSIC:**
  - 1000x3000mm (1000x3750mm on request)
  - Minimum size: 200x300mm
  - Less on request.
- **For PRIVA-LITE XL:**
  - 1500x3000mm (1800x3500mm on request)
  - Minimum size: 200x300mm
  - Less on request.

**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 for Priva-Lite Classic only.

Two layers of extra clear glass encapsulate a liquid crystal (LC) film inserted between EVA or PVB layers. This LC film is composed of two PET films coated with a transparent metallic deposit and laminated together by means of a very fine layer of liquid crystal gel. Due to voltage application, liquid crystals orient themselves toward the same direction. Priva-lite Classic is powered by 100 Volts AC, and Priva-Lite XL by 65 Volts AC. The LC Film (Translucent in OFF state) then becomes instantaneously transparent. In its translucent state, PRIVA-LITE® offers an ideal (back) projection screen.

**TECHNICAL FILE | PRIVA-LITE®**

**Power Supply Unit**
- Dimensions: 180 x 133 x 46 mm (1 kg)
- Input: 230V / 40 VA (50Hz)
- L+N+PE
- Switch (cable 230V, 10mA)

**Non-active area:** 9 mm

**Transparent width:** 3 mm

**Marks:** 30 mm x 15 mm

**Cutting holes and notches**
The glazing is delivered in the required dimension. No further cutting or drilling is possible. Hole and notches are possible under specific conditions. In the event of a hanging screen, the anchor holes have to be and located in a zone without LC film.

**Electrodes and cable exit**
Depending on the size of the glass-pane, both electrodes can be positioned either on top, at the bottom, on the right or left side, with the exit of the cable at the center of the electrodes’ side.

**Power supply unit**
- For **PRIVA-LITE CLASSIC:**
  - 5 types of transformers are available able to supply between 3m² to 20m² of PRIVA-LITE with one unit.
  - CE certificates relate to all. UL certificate on demand.

- For **PRIVA-LITE XL:**
  - 2 types of transformers are available to supply up to 5,5m² of PRIVA-LITE with one unit.
  - CE certificates relate to all. UL certificate on demand.

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

Single glazing PRIVA-LITE® 55.4 (12 mm)

<table>
<thead>
<tr>
<th></th>
<th>Priva-lite Classic</th>
<th>Priva-lite XL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light transmission*</td>
<td><strong>ON</strong> 77 %</td>
<td><strong>OFF</strong> 76 %</td>
</tr>
<tr>
<td>Light reflection*</td>
<td><strong>ON</strong> 19 %</td>
<td><strong>OFF</strong> 18 %</td>
</tr>
<tr>
<td>Haze (level of blur)*</td>
<td><strong>ON</strong> 7.5 %</td>
<td><strong>OFF</strong> 90 %</td>
</tr>
<tr>
<td>Solar factor*</td>
<td><strong>ON</strong> 63 %</td>
<td><strong>OFF</strong> 64 %</td>
</tr>
<tr>
<td>Ug (W/m²K)</td>
<td>5.6 to 5.8</td>
<td>5.6 to 5.8</td>
</tr>
<tr>
<td>Rw (C; Ctr)</td>
<td>38 (-2;-3) dB</td>
<td>38 (-2;-3) dB</td>
</tr>
</tbody>
</table>

*The spectrophotometric data are given with a tolerance of ± 2%*

**Standard / Acoustic**

Clause of particular technical specifications

Glazing product with controlled opalescence can be made transparent by applying a 100V AC electrical current for Priva-lite Classic and 65 AC electrical current for Priva-lite XL with both a haze level of 7.5% in its transparent state and 90% in its translucent state. No change in light transmission between the transparent and translucent states for Priva-Lite Classic.

**PRIVA-LITE® IMPLEMENTATION**

**APPLICATIONS**

Interior and exterior applications: partition wall, door, window, shop front, security glazing, glass floor, projection screen ...

**CUSTOMISATION OF THE GLAZING**

**COMPOSITION**

Standard 55.4 (12 mm thickness) laminated glass. Can be composed of glass that is tempered, coloured, screen-printed, bended ...

**SHAPES**

All of the standard shapes, except complete circles as well as shapes with angles inferior to 30°. The panes can be curved, screen-printed or be sand-blasted.

L : Maximum Length / Height: 3000 mm
D : maximum Diameter: 1000 mm
R : minimum Radius: 2000 mm
INSTALLATION

TYPE OF FRAME
→ Fixed, opening or sliding frame
→ Possible to hang (suspension holes in zone without LC film)
→ Use only untreated hardwood support blocks (packers)
→ Only the Multisil silicone (provided by GLASSOLUTIONS) may come into contact with the glass edges.
→ Any material in contact with the edges of the glass must be checked by GLASSOLUTIONS for compatibility

MAIN PRECAUTIONS FOR USE AND IMPLEMENTATION
→ Intended exposure of the glazing to temperatures exceeding +60°C or below -20°C will require a specific analysis
→ Prevent all pressure on the surface of the panel, over the molding and the cables
→ The power supply unit can be located remotely, but must remain accessible (maintenance)
→ Priva-lite can be simply controlled by a standard switch. A waterproof resistant switch and a remote control are proposed by Glassolutions.
→ The installation has to respect the current electrical regulations and must be performed by an electrician

To guarantee the quality and durability of the installation, it is strongly recommended to entrust the installation to a trained GLASSOLUTIONS installer.

TECHNICAL DATA

<table>
<thead>
<tr>
<th></th>
<th>Priva-lite Classic</th>
<th>Priva-lite XL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating voltage</td>
<td>100 volts (50 Hz)</td>
<td>65 VAC (50Hz–60Hz)</td>
</tr>
<tr>
<td>Power</td>
<td>7 W/m² when «ON» 0 W/m² when «OFF»</td>
<td>5 W/m² when «ON» 0 W/m² when «OFF»</td>
</tr>
<tr>
<td>IP</td>
<td></td>
<td>IP X7</td>
</tr>
<tr>
<td>Security to shock</td>
<td>PVL 55.4 is equivalent to a laminated glass (EN 12600, level 1B1)</td>
<td></td>
</tr>
<tr>
<td>Protection class</td>
<td>PVL 55.4 is P5A - PVL 66.8 is P6B</td>
<td></td>
</tr>
<tr>
<td>Electrical classification</td>
<td>Class I (CLASS II under conditions) (EN 60439)</td>
<td></td>
</tr>
<tr>
<td>Standards and certification</td>
<td>CE certification; DoP and UL certification on demand</td>
<td></td>
</tr>
</tbody>
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PRIVA-LITE® BENEFITS
SUSTAINABLE HIGH-PERFORMANCE SOLUTION

→ Reliability over time. More than 20 years of experience and best results to ageing test
→ Unparalleled level of transparency
→ Light transmission almost identical in the transparent and translucent states
→ European production + CE certificates
→ Low power consumption
→ Instantaneous and silent change of state via simple command
→ 5 years guarantee

WARRANTY
GLASSOLUTIONS gives a 5-year warranty on the functionality of the PRIVA-LITE. This guarantee is valid only if the instructions contained in our installation and maintenance guide are followed.
SELECTED REFERENCES

→ IMMEUBLE CHANEL - CHANEL GINZA BY PETER MARINO [TOKYO, JAPAN]
→ FOUR SEASON HOTEL; RIYADH SAUDI ARABIA
→ SIEM REAP INTERNATIONAL AIRPORT BY ALAIN DUPUY [CAMBODIA]
→ TOUR PERRET BY THIERRY VAN DE WYNGAERT [AMIENS, FRANCE]
→ HIGH SPEED TRAINS ICE (GERMANY) and VELARO (SPAIN)
→ IPIC TOWER, ABU DHABI - UAE
→ NOVOTEL FUJAIRAH, UAE

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