SWITCHABLE LC-GLASS

OFF
Facade application

ON
Facade application

OFF ON
Glass door

TECHNOLOGY

The glass is opaque without tension (standard white matt or alternatively gray matt) and opaque. When a low-voltage AC voltage is applied via a voltage converter, the LC-glass becomes transparent.

Behind it is a clever foil made of a liquid crystal film on both sides of conductive layers is covered. These are connected to a conductor rail. If an electrical voltage is applied between the layers, the crystal particles arrange themselves into an moderate structure. This makes the surface transparent.

The change takes place in milliseconds, is wear-free and can be repeated as often as required.
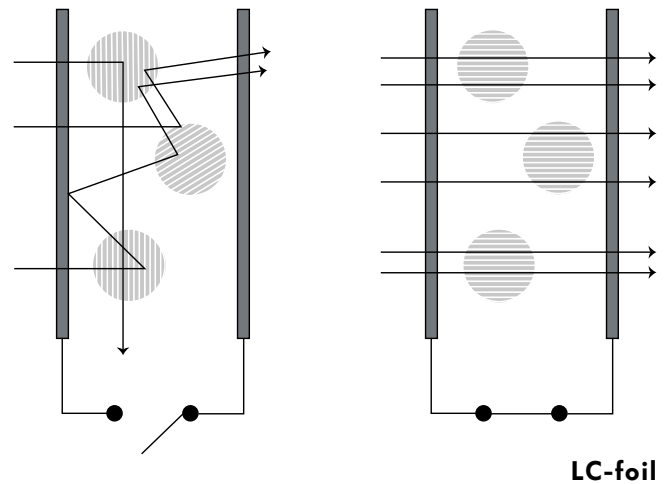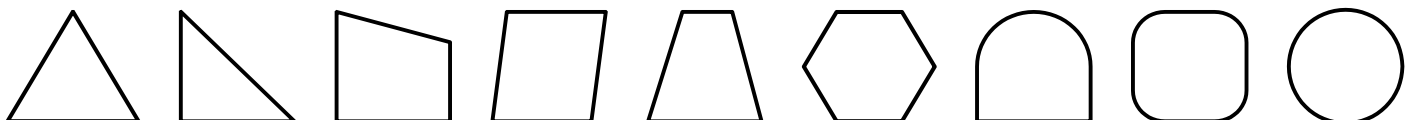
LC-foil

APPLICATION AREAS

INSIDE
- Partition glazing
- Projection surface (e.g. for projectors)
- Hinged, folding, sliding doors
- Clean rooms and hospitals

OUTSIDE
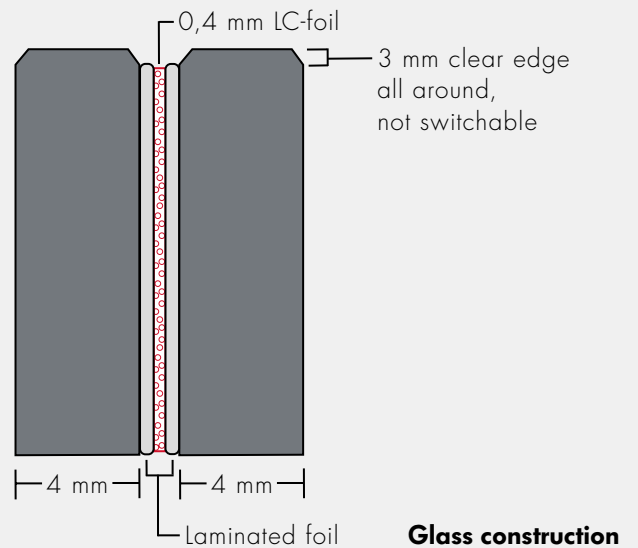- As the inner pane of insulating glazing

SHAPES

Triangle (without 90), triangle, oblique edge, parallelogram, trapezoid, hexagon,
Rectangle with segmented bottom, rectangle with rounded corners, circle

TECHNICAL SPECIFICATIONS

LC-glas	
Standard construction	2 × 4 mm ESG extra white, thickness approx. 10 mm
Max. dimension	1800 × 3500 mm (larger on request), from 14 mm thickness

Transformer	
Dimension	Different transformers for max. 4 m² or for max. 10 m² glass area
Max. distance to glazing	20 m

Connection cable	
Length	ca. 200 mm
Cross-section	0,14 mm²
Switching voltage	42-70 VAC sinusoidal voltage
Power consumption	ca. 1-3 W/m²
Frequency	25, 32, 50 Hz
Switching time	< 10 ms at room temperature
Application temperature	−20° bis +60° C
Transparency (angle dependent)	Approx. 77% when switched on
Hase (residual cloudiness in the clear state)	Approx. 2,2% at 70V Approx. 3,3% at 42V
UV radiation	Up to 99% UV impermeable

0,4 mm LC-foil

3 mm clear edge all around, not switchable

4 mm   4 mm

Laminated foil

Glass construction

! **Around 3 mm clear, non-switchable edge**

FUNCTION

The function of switchable LC glass provides completely new solutions:

The glass contains a clear or gray liquid crystal film that is voltage sensitive. The transparency of the glass can be continuously dimmed from opaque to transparent.

Various shapes, colors and sizes are possible. Perfect for unique effects in offices, banks, hotels or private rooms.

Thanks to the glass surface, maximum hygiene is also guaranteed.

Perfect e.g. for hospitals and medical practices.

LC-foil **clear**   LC-foil **grey**