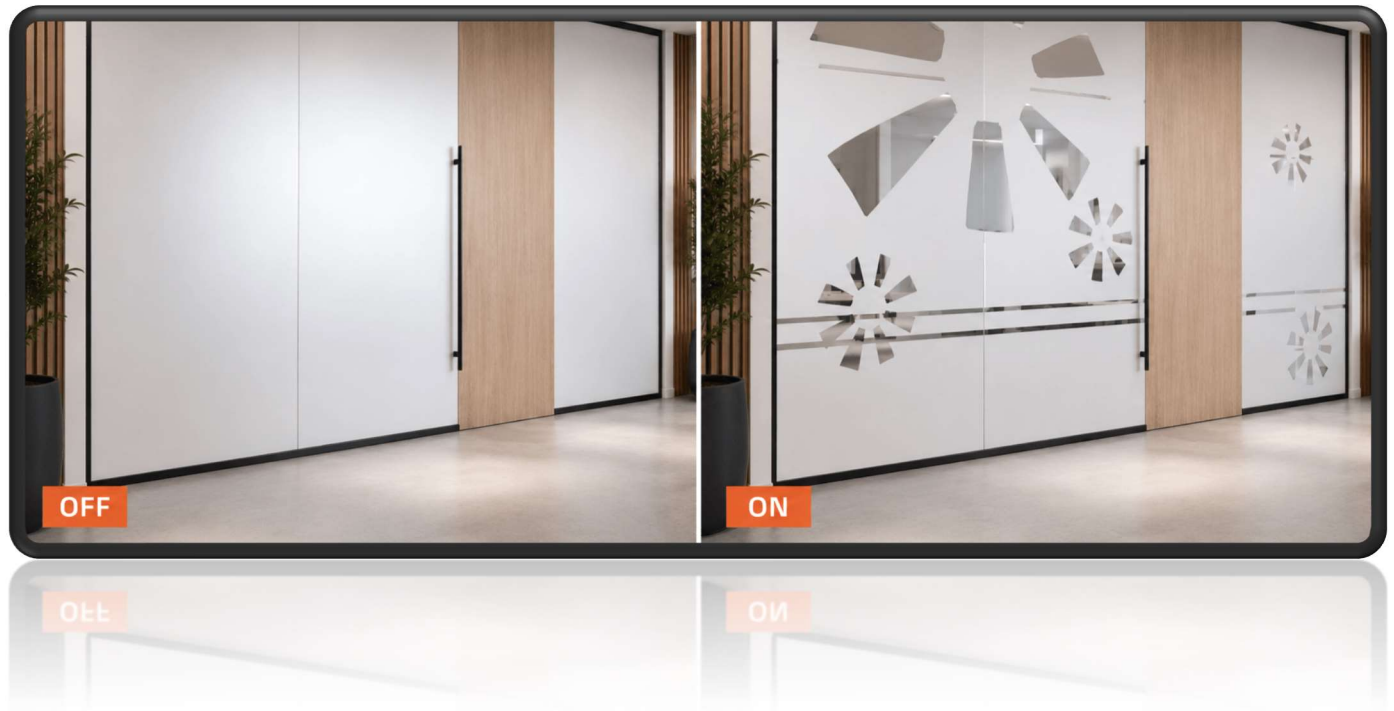




PDLC SMART FILM – ETCHED | Design Series

Decorative Switchable Privacy with Custom Transparent Designs

Premium PDLC Smart Film combining instant privacy control with decorative transparent patterns, allowing architectural glass to become both a functional privacy solution and a distinctive design element.

Product Overview

The **PDLC Etched Smart Film** combines conventional switchable privacy technology with customized designs, patterns, shapes or visual elements incorporated into individually controlled areas of the film.

Through electrical segmentation, different areas of the film can be controlled independently. Depending on the selected design and control configuration, the film can operate **fully opaque for complete privacy**, **fully transparent for maximum visibility**, or in a **patterned state where selected design areas become transparent while the surrounding areas remain opaque**.

This allows decorative patterns, geometric designs, logos or other visual elements to be integrated directly into switchable glass installations, creating dynamic visual effects while retaining the privacy functionality associated with PDLC technology.

The Etched series is particularly suited to architectural and interior design applications where **privacy, visual identity and decorative glass elements** are required within a single integrated solution.

Key Benefits

- ✓

 Customizable Transparent Designs
- ✓

 Integrated Privacy & Decoration
- ✓

 Instant Switching Control
- ✓

 UV Protection ≥99%
- ✓

 Low Power Consumption
- ✓

 Wide Viewing Angle ≥160°
- ✓

 Suitable for Existing Glass
- ✓

 Smart Control Integration Ready

Typical Applications

- Corporate Offices:

 Customized glass partitions combining privacy and visual identity.
- Reception Areas:

 Decorative glazing incorporating patterns, logos or architectural designs.
- Hospitality:

 Distinctive privacy features for hotels, restaurants and premium interiors.
- Retail & Showrooms:

 Branded or decorative glass for displays and customer-facing spaces.
- Residential:

 Customized privacy glazing for luxury interiors and feature partitions.

Technical Specifications

PARAMETER	SPECIFICATION
FILM TYPE:	Self-Adhesive Etched PDLC Smart Film
LIGHT TRANSMISSION (ON):	84-85%
HAZE (ON):	4.53%
OPERATING VOLTAGE:	60V AC
POWER CONSUMPTION:	≤5 W/m ²
VIEWING ANGLE:	≥160°
UV REJECTION:	≥99%
IR REJECTION:	≥60%
RESPONSE TIME (OFF→ON):	≤30 ms
RESPONSE TIME (ON→OFF):	≤200 ms
OPERATING TEMPERATURE:	-30°C to +50°C
EXPECTED LIFESPAN:	100,000 Hours
SWITCHING CYCLES:	≥2 Million
AVAILABLE WIDTH:	Up to 1800 mm

Control Options

					
Wall Switch	Remote Control	Motion Sensor	Mobile App	Smart Home	BMS Integration

Professional Installation by Bullconcept

Bullconcept Smart Solutions Ltd. provides complete turnkey PDLC Smart Film solutions, including technical consultation, site assessment, product selection, professional installation, system commissioning, and after-sales support.

Every project is individually evaluated to ensure the most suitable film type, control method, and installation approach for the specific environment and customer requirements.

Maintenance & Care

Detailed cleaning and maintenance instructions are available in the PDLC Smart Film Care & Maintenance Guide, available at <https://smartfilm.bullconcept.com>.

Important Notes

This product is intended to be installed, connected, and commissioned by qualified professionals. Final suitability depends on the project environment, glass condition, dimensions, control requirements, and site-specific installation conditions.

Important:

Etched PDLC Smart Film uses electrically segmented areas to create customized switchable designs. Depending on the selected design and control configuration, the film can operate fully opaque, fully transparent, or display a patterned state where selected areas are transparent while surrounding areas remain opaque. Available switching configurations depend on the individual pattern design and electrical segmentation. Patterns, geometric designs, logos or other visual elements **subject to design feasibility**.

Ready to discuss your project?

Contact our team for a free consultation.

Contact



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