

VITRO SMART

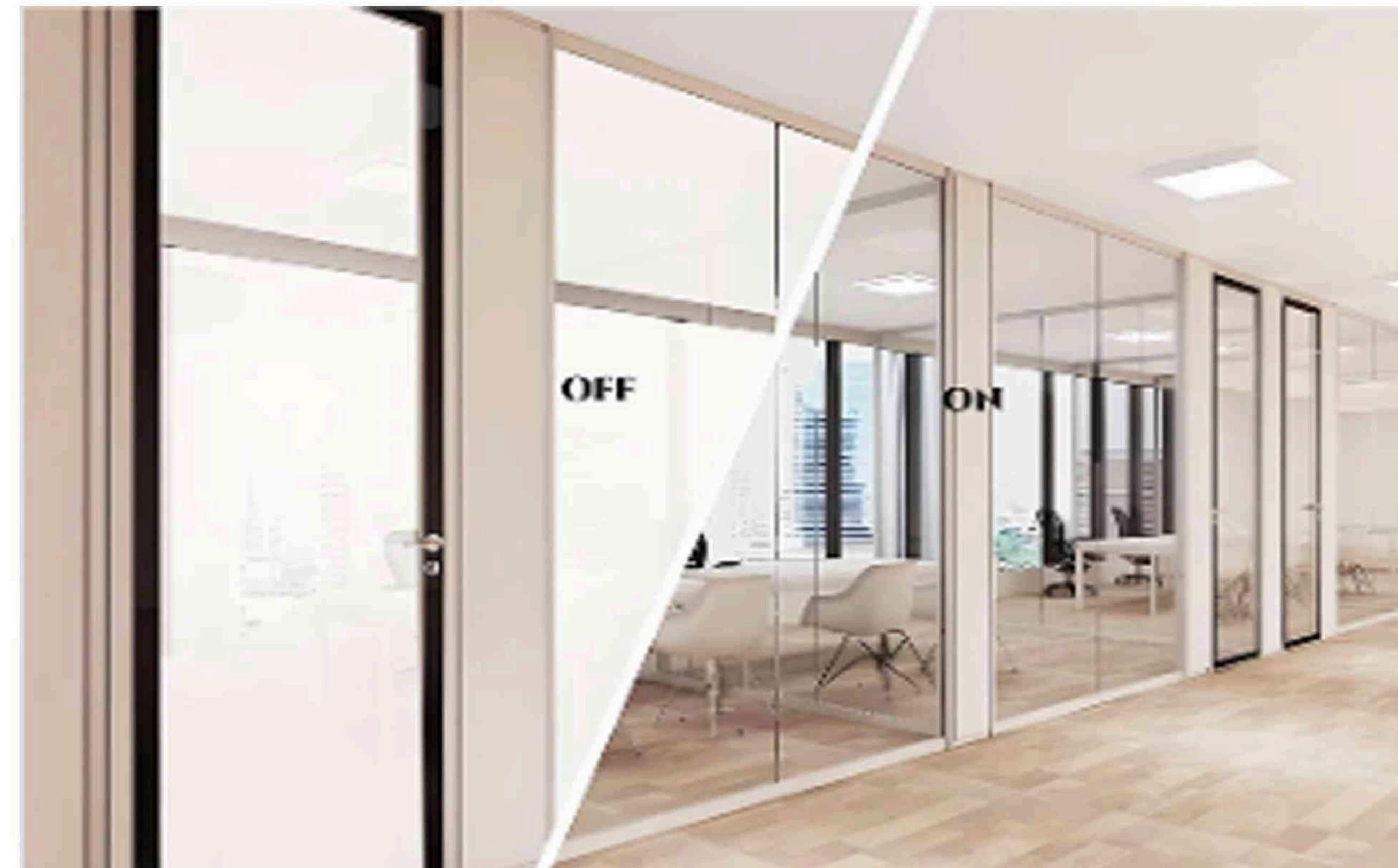
PDLC & LED GLASS

LA TECHNOLOGIE AU SERVICE DU DESIGN

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PDLC FILM

GOOD FAITH CONTAINS
THE PROFESSIONAL QUALITY CAST



PDLC smart dimming film is a high-tech material that can quickly switch between transparency between powered and unpowered states, thereby achieving privacy protection and light control.

Features

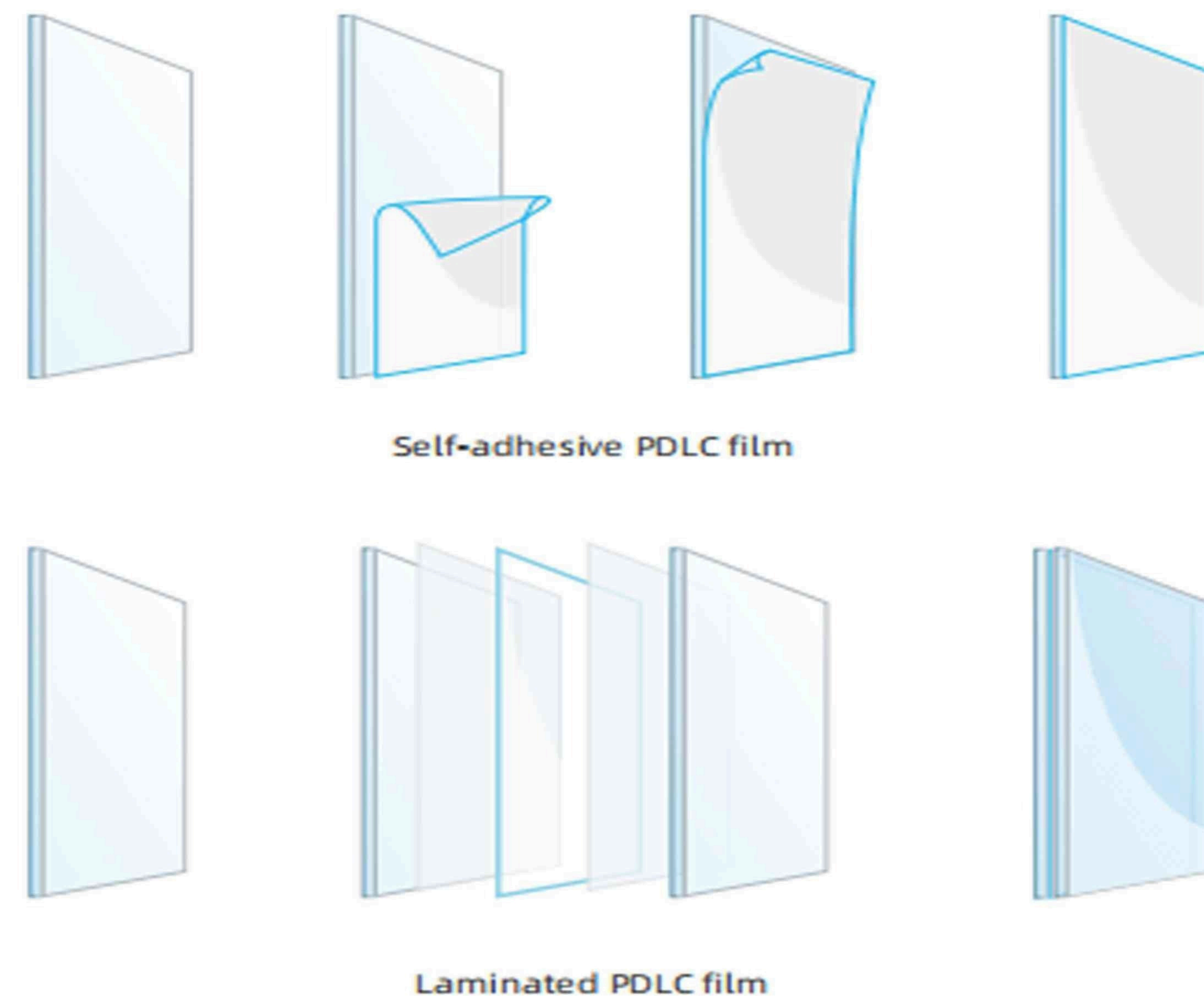
Privacy Control: PDLC smart films can quickly switch between transparent and opaque states, providing instant privacy control.

Aesthetic Enhancement: PDLC smart films add a touch of modernity and sophistication to interior decoration, and can be customized with patterns or logos to enhance brand image or aesthetic appeal.

Projection: PDLC smart films can be used as high-definition projection screens.

Two types PDLC Film

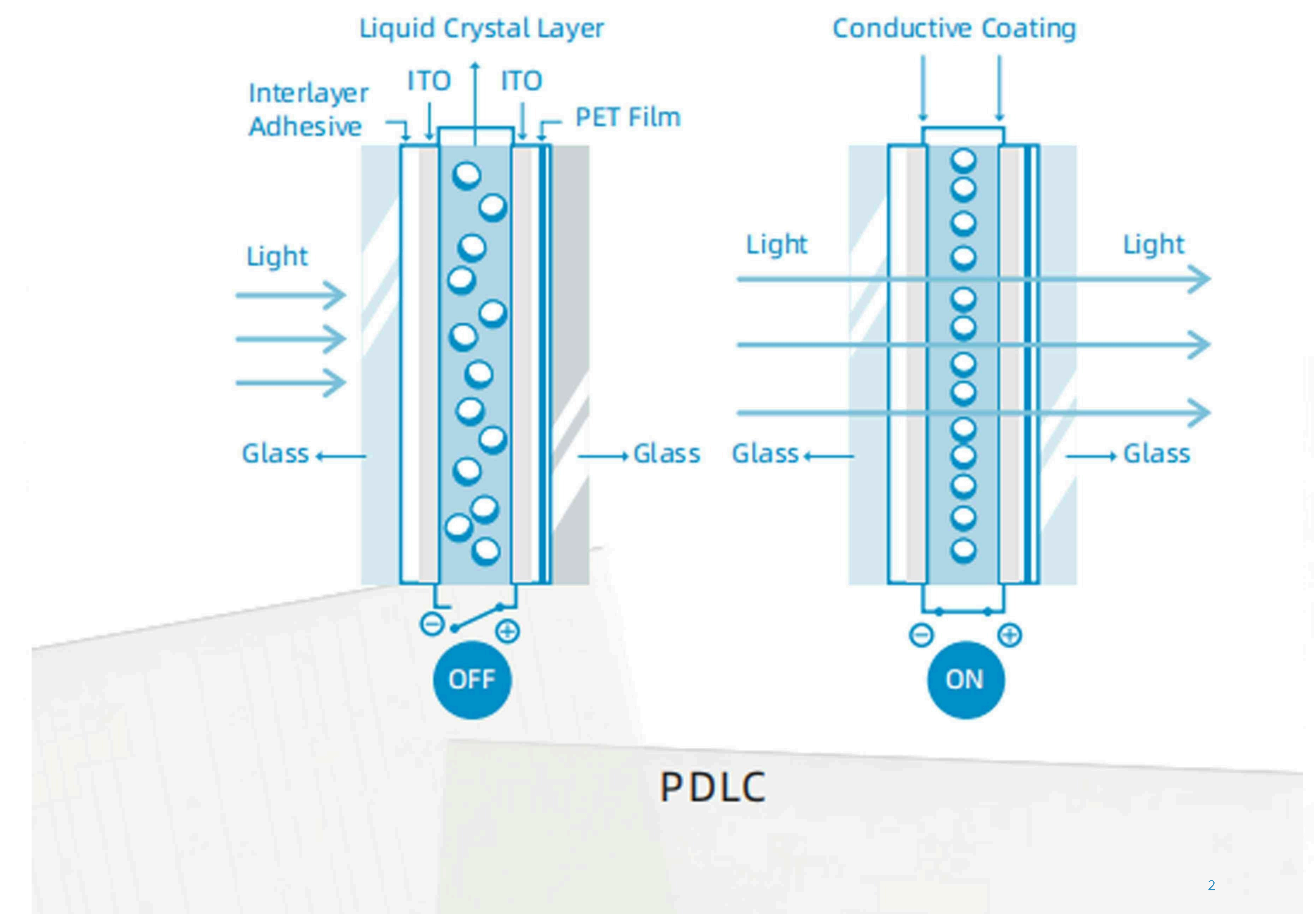
There are two types of PDLC films, self-adhesive and laminated films for front-end design and post-retrofit projects.



Technical Principles

PDLC (Polymer Dispersed Liquid Crystal) film is a new material electronic light control product that allows the user to control the perspective of the glass and the intensity of the light with very little energy, by injecting a liquid crystal/polymer hybrid material injected in the middle of two transparent conductive films. PDLC film in the absence of an electric field, the electronically controlled PDLC FILM is in an opaque state.

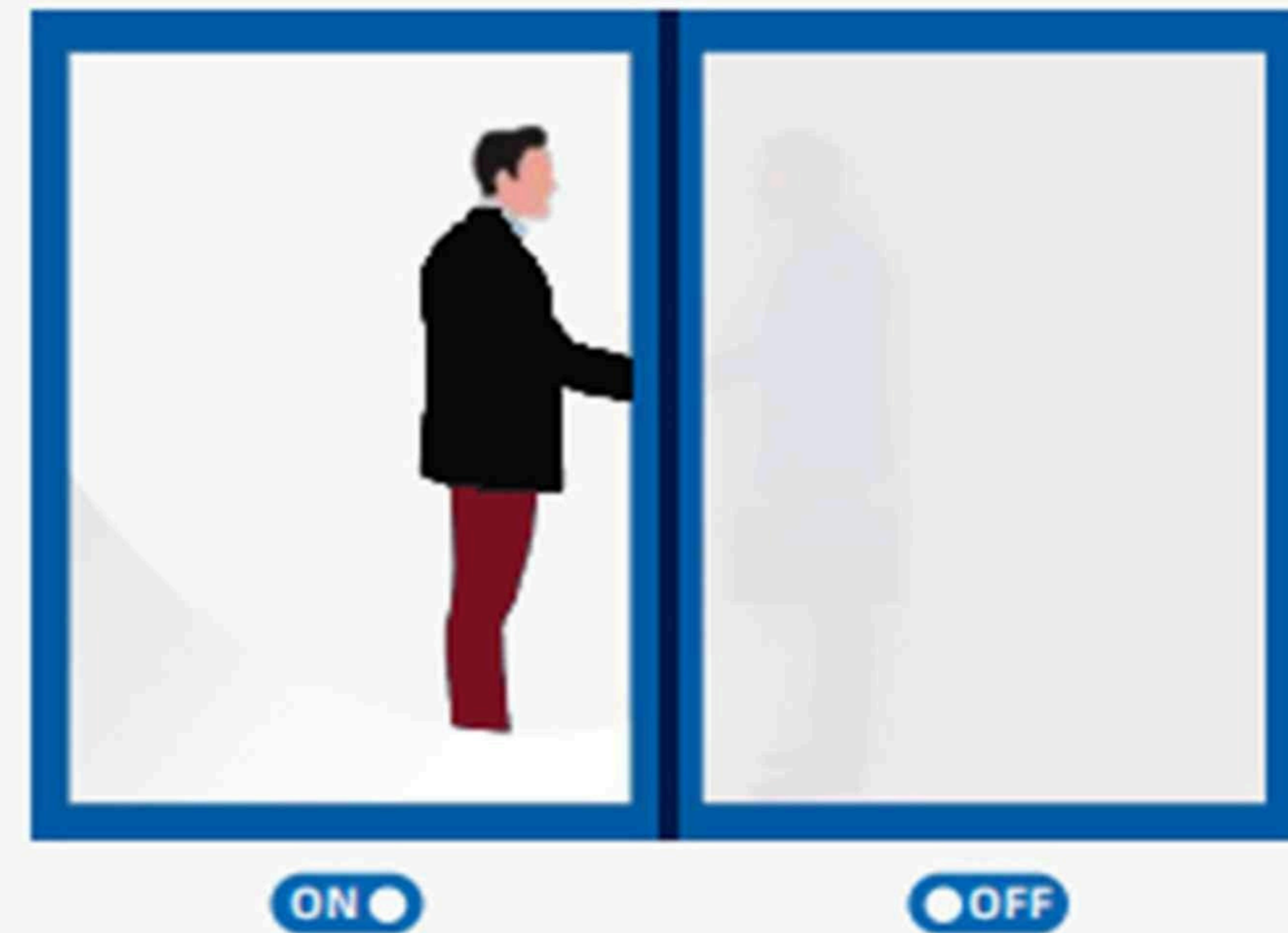
When an alternating current is applied, the liquid crystal molecules are arranged in an orderly manner, at which point the PDLC film changes from an opaque state (OFF) to a transparent state (ON).



PDLC FILM

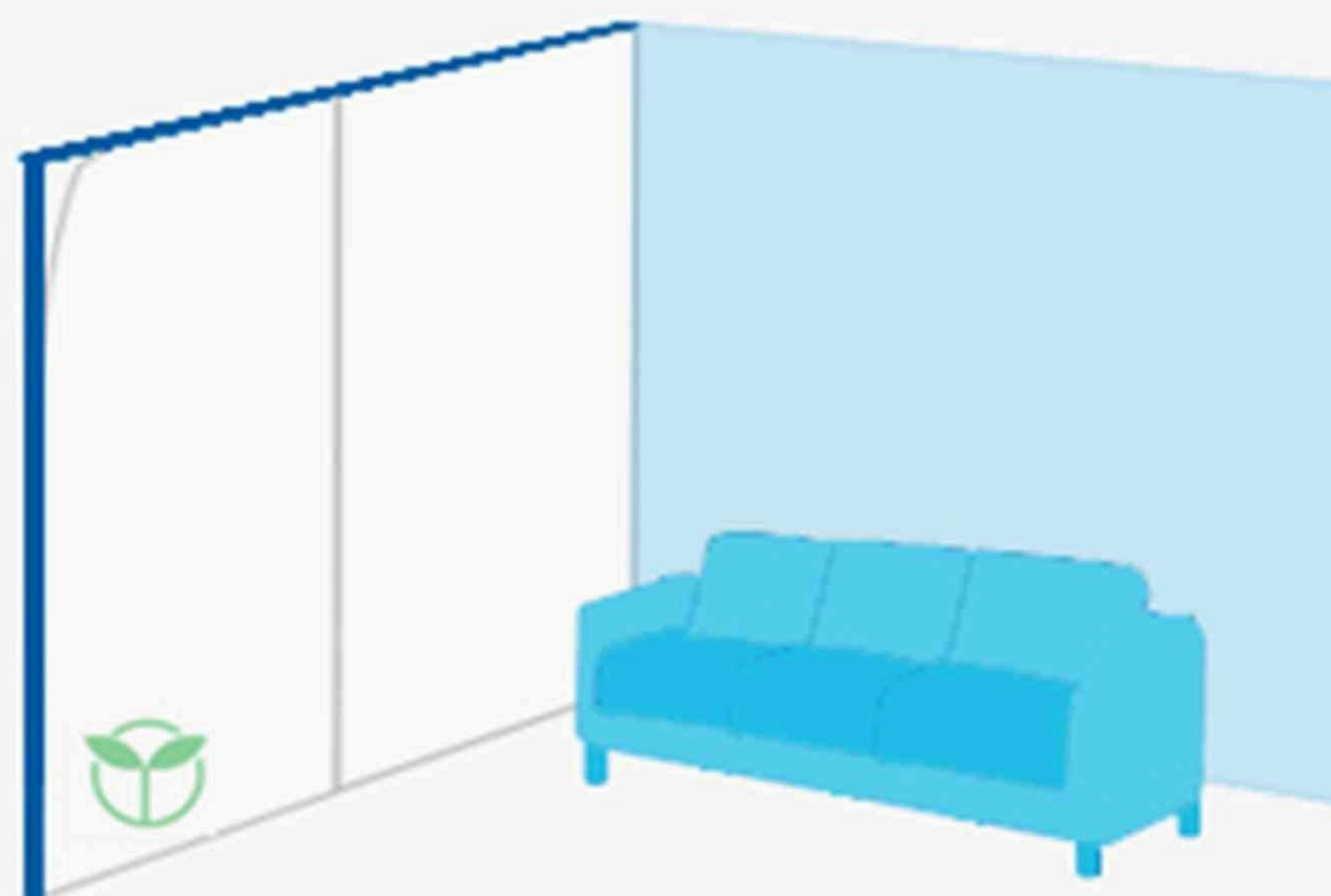
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Characteristics: PDLC film



Privacy protection

To ensure privacy and security, you can freely adjust the transparency. Make your space more flexible and versatile, freely choosing between open or private.



Environmental protection

Installing PDLC film can significantly minimize the wear and tear on decorations, thereby reducing pollution and safeguarding the environment more effectively.



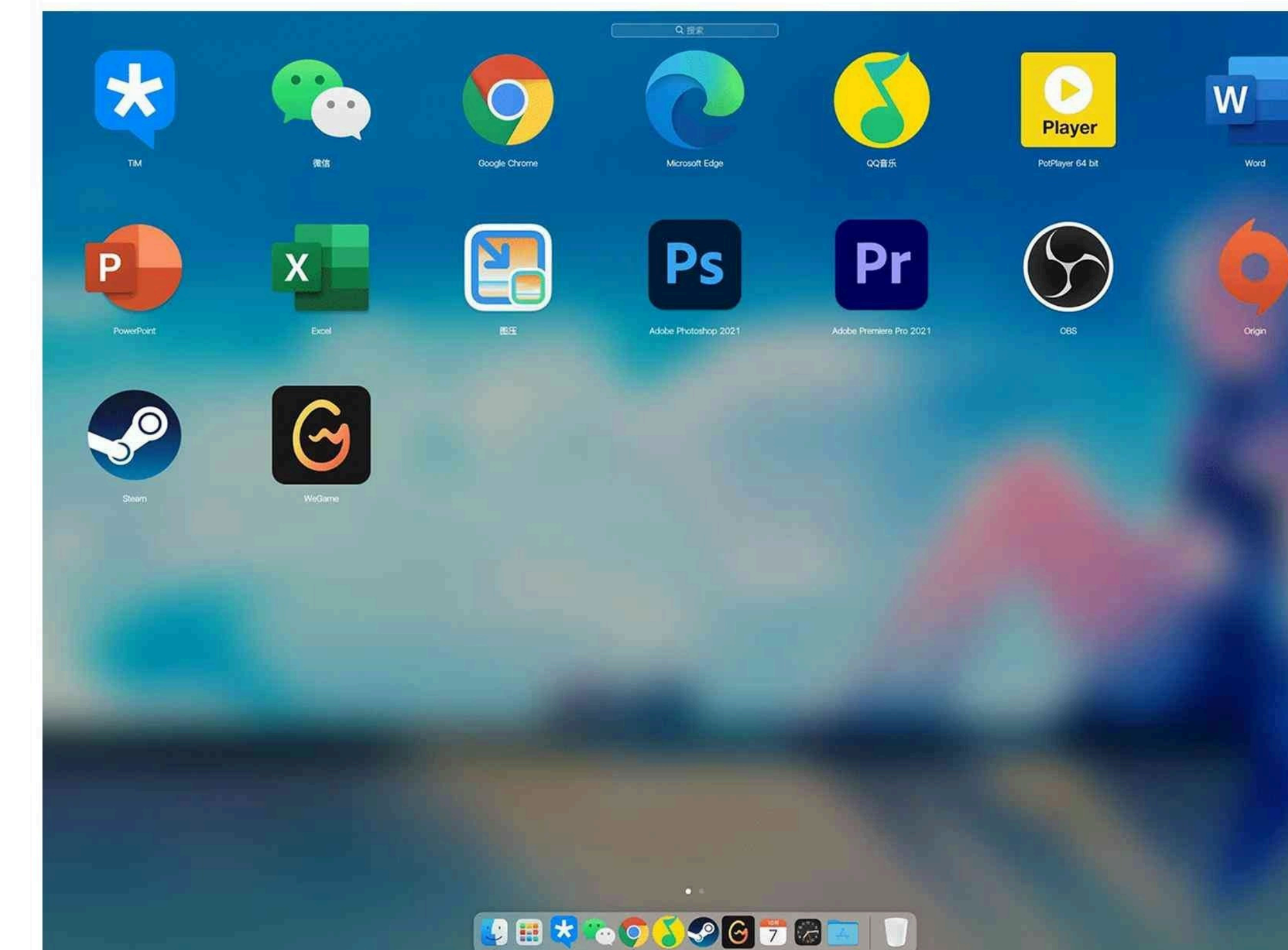
Security

In the event of glass shattering, the PDLC film can retain the broken pieces, preventing injuries that might be caused by flying glass shards.



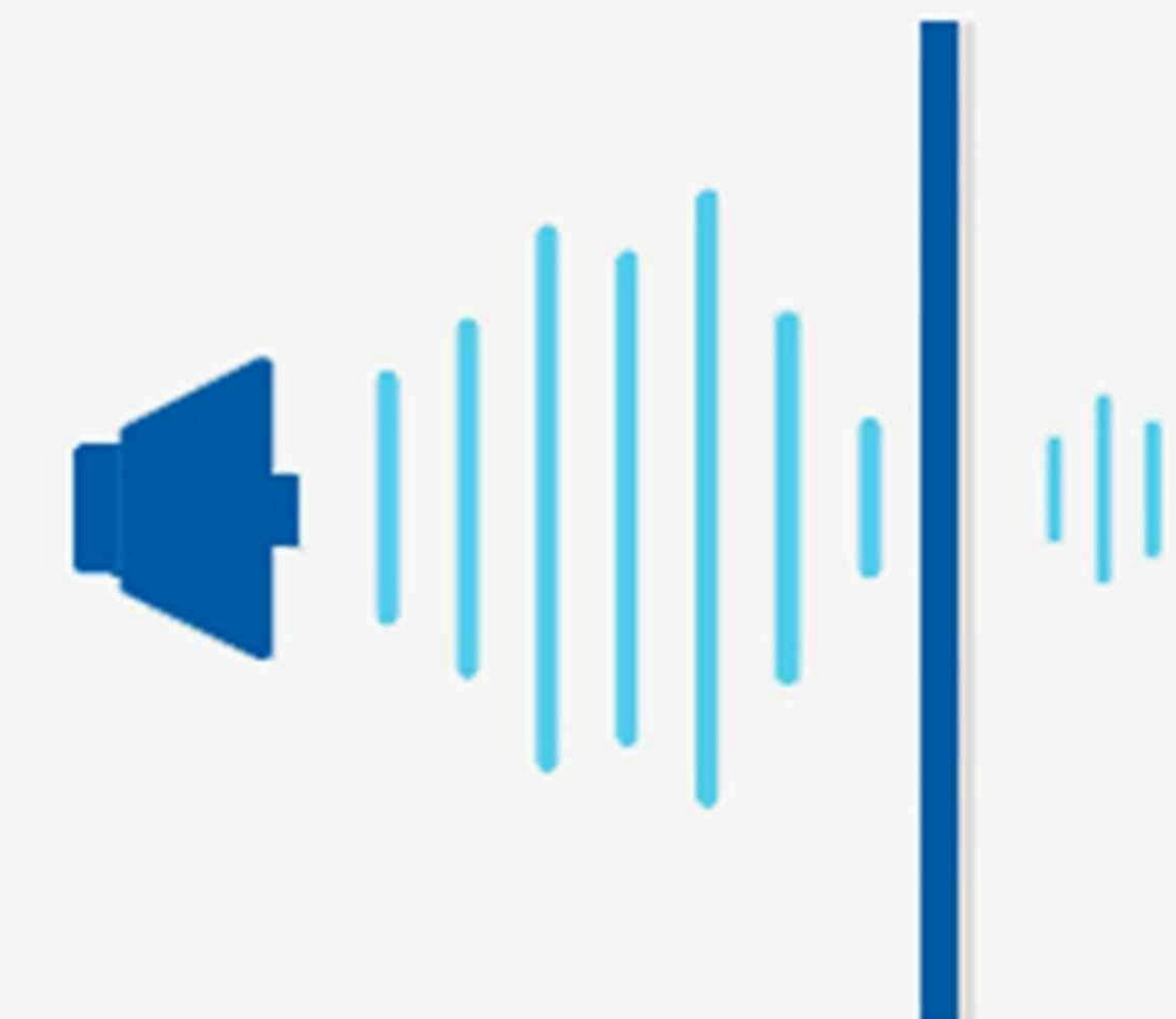
Heat-resistant and anti-scratch

The product operates up to 105°C and has an anti-scratch layer to protect against scratches without impairing visibility.



Touch screen and projection

With a high-definition projector, you can easily achieve a 180° viewing angle and 4K resolution display. It also supports multi-touch and video interaction with a radar.



Anti-noise

Aysent PDLC film-enhanced glass boasts a 20% improvement in noise reduction capabilities compared to standard glass.

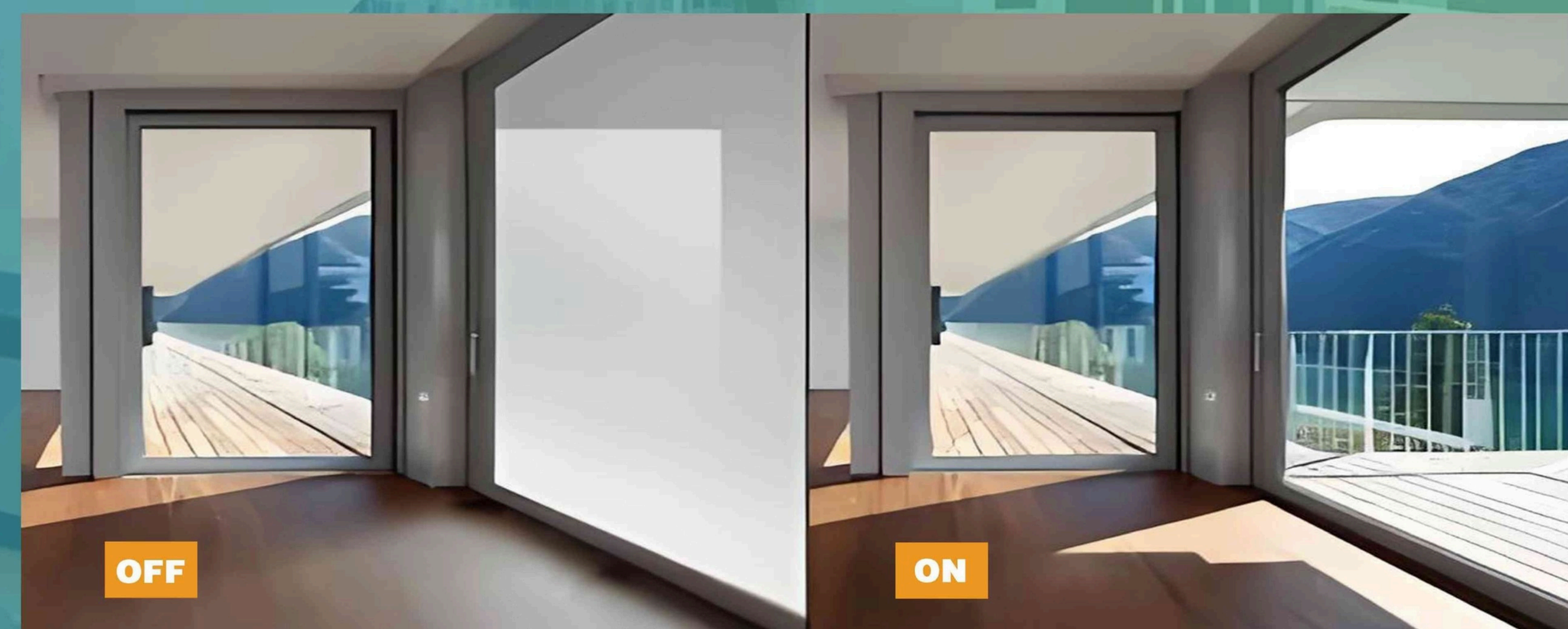


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PDLC & LED GLASS
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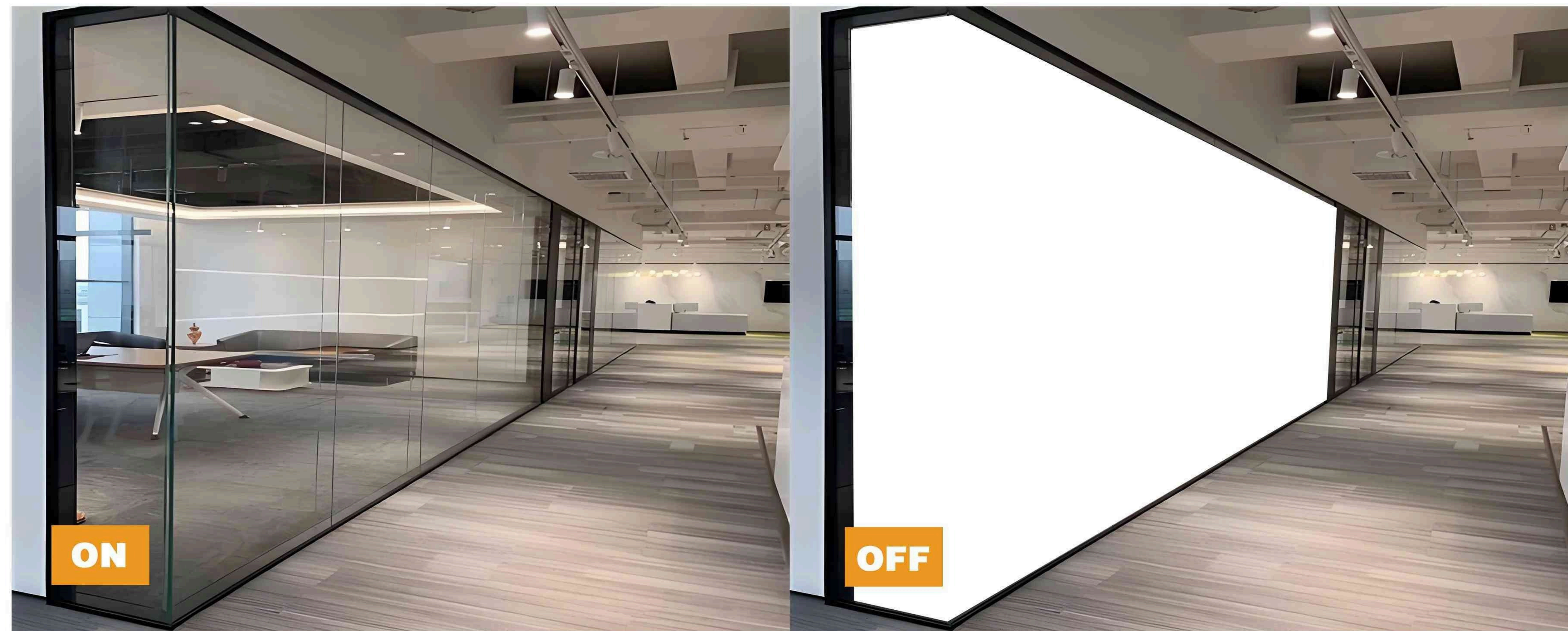
ADHESIVE PDLC FILM

The PDLC self-adhesive film has an adhesive back, which can be directly applied to glass by peeling off the protective film, eliminating the need for a complex installation process. With an external control power supply, the PDLC self-adhesive film can quickly switch between transparent and frosted states, and is suitable for various applications such as interior partitions, exterior curtain walls, bathrooms, store windows, subways, and more.

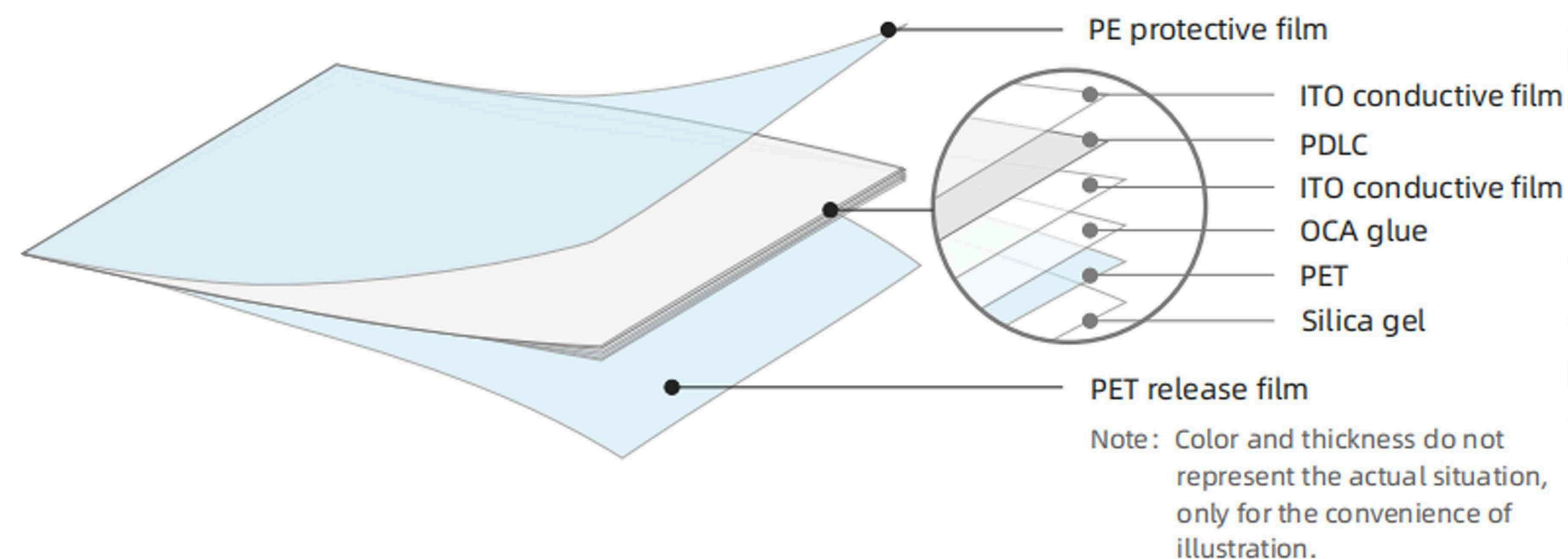


VS-90 (Adhesive PDLF Films)

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This multifunctional film is suitable for offices, meeting rooms, museums, and other places, combining transparency, privacy, partitioning, and projection capabilities, i deal for environments that require integrated visual and spatial management.



Product Testing Details

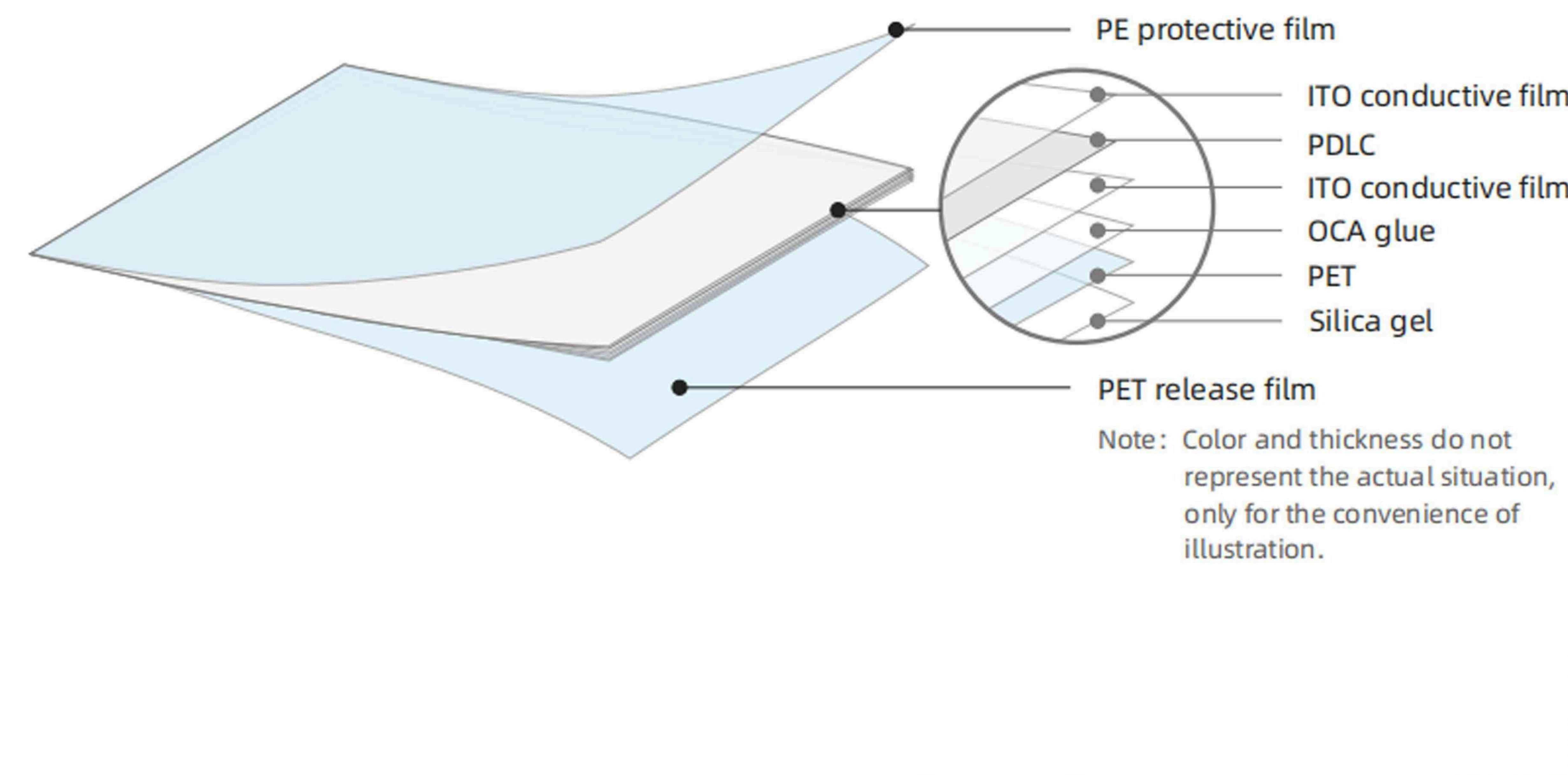
Rated voltage	ON	Volt	60
Power consumption	ON	VA/m²	3.7
Paralle light transmittance	ON	%	84.27
	OFF	%	75.8
Full light transmittance	ON	%	90
	OFF	%	18
Haze	ON	%	3.13
	OFF	%	100
Film thickness	/	mm	0.47
Infrared blocking rate	ON	%	11
	OFF	%	75
Uv blocking rate	ON	%	98
	OFF	%	98
Response time	OFF→ON	ms	≤60
	ON→OFF	ms	≤20
Operating temperature	/	°C	-20~85
Life-span	/	year	More than 100000 hours
Warranty period	/	year	2
Product Size	Adhesive PDLF film (rolls)	Width: 1.0m/1.2m/1.5m/1.8m	
	Adhesive PDLF film (sheet)	Width: ≤1.8m	
MOQ	Adhesive PDLF film (rolls)	50m	
	Adhesive PDLF film (sheet)	0.5m²	

VS-92 (Adhesive PDLC Films)

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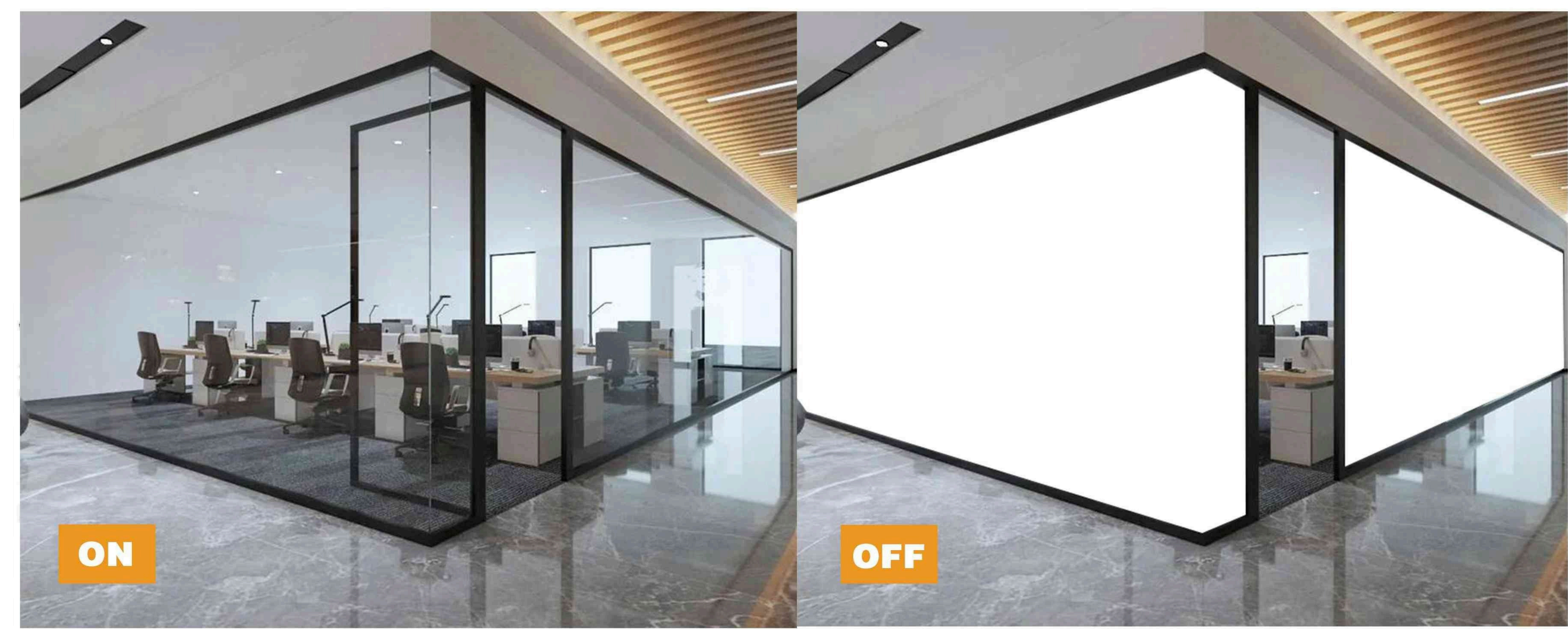
This all-in-one film is designed for versatile use in various settings such as offices, conference rooms, and museums. It offers a combination of clear visibility, privacy, room division, and the capacity for projection, making it ideal for spaces that necessitate a unified approach to visual and spatial management.



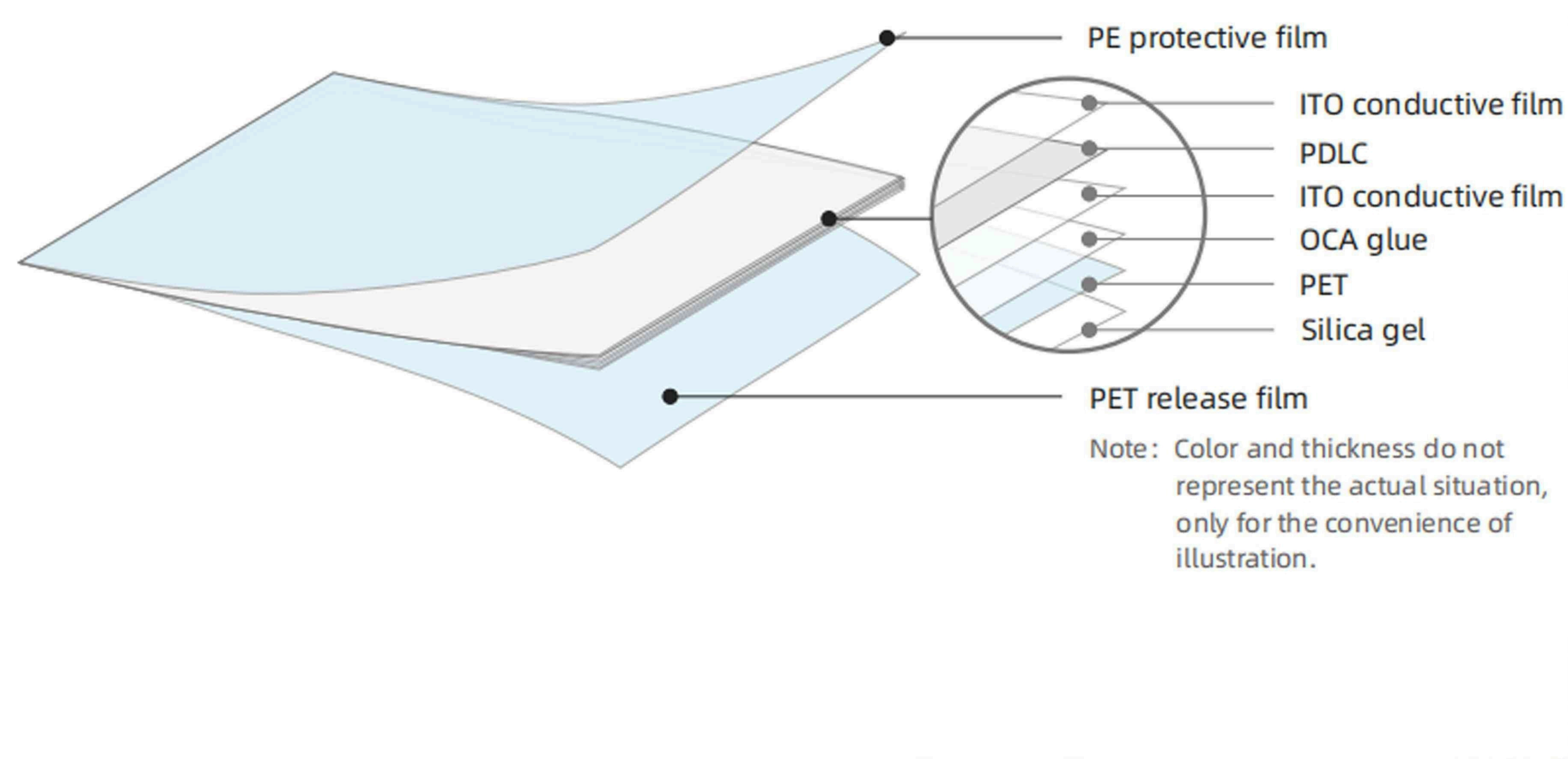
Product Testing Details			
Rated voltage	ON	Volt	48
Power consumption	ON	VA/m²	3.7
Paralle light transmittance	ON	%	88.15
	OFF	%	79.7
Full light transmittance	ON	%	92
	OFF	%	25
Haze	ON	%	2.96
	OFF	%	99.7
Film thickness	/	mm	0.47
Infrared blocking rate	ON	%	12
	OFF	%	70
Uv blocking rate	ON	%	99
	OFF	%	98
Response time	OFF→ON	ms	≤60
	ON→OFF	ms	≤20
Operating temperature	/	°C	-20~85
Life-span	/	year	More than 100000 hours
Warranty period	/	year	2
Product Size	Adhesive PDLC film (rolls)	Width: 1.0m/1.2m/1.5m/1.8m	
	Adhesive PDLC film (sheet)	Width: ≤1.8m	
MOQ	Adhesive PDLC film (rolls)	50m	
	Adhesive PDLC film (sheet)	0.5m²	

VS-94 (Adhesive PDLC Films)

GOOD FAITH CONTAINS
THE PROFESSIONAL QUALITY CAST



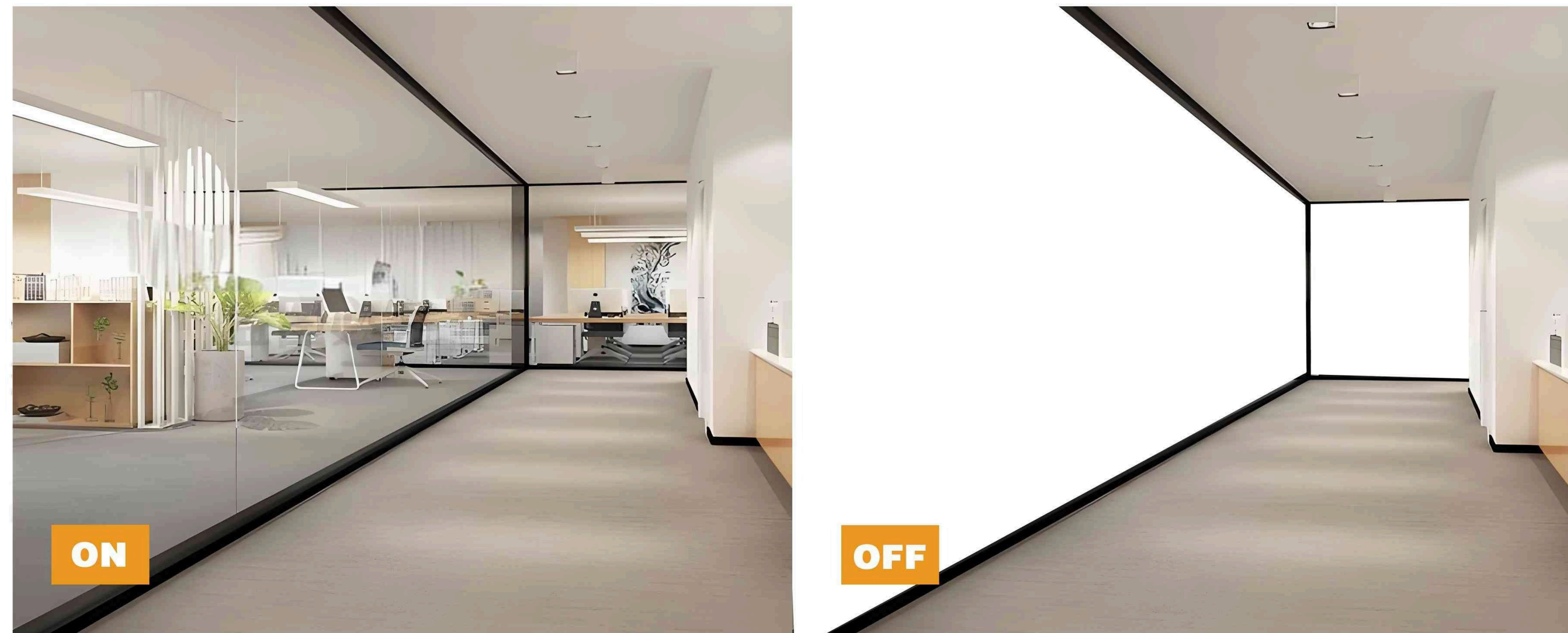
This adaptable film is well-suited for a variety of settings including offices, meeting spaces, and museums. It provides a multifaceted solution that includes clear transparency, privacy options, room dividers, and the ability to project images, making it an optimal choice for areas that need a cohesive management of visual and spatial elements.



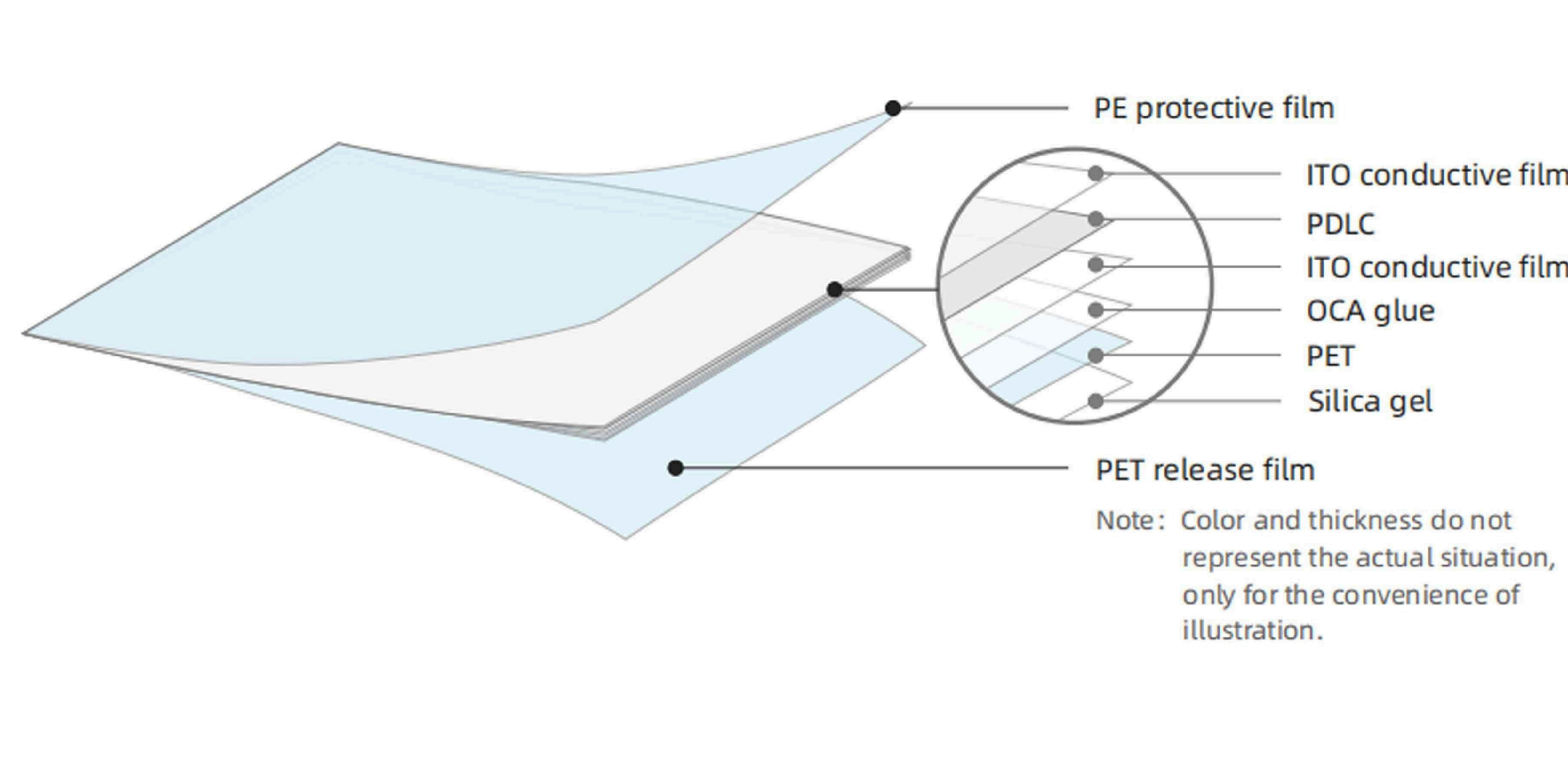
Product Testing Details			
Rated voltage	ON	Volt	60
Power consumption	ON	VA/m²	3.7
Paralle light transmittance	ON	%	92.07
	OFF	%	71.4
Full light transmittance	ON	%	94
	OFF	%	18
Haze	ON	%	2.29
	OFF	%	100
Film thickness	/	mm	0.47
Infrared blocking rate	ON	%	11
	OFF	%	75
Uv blocking rate	ON	%	99
	OFF	%	100
Response time	OFF→ON	ms	≤60
	ON→OFF	ms	≤20
Operating temperature	/	°C	-20~85
Life-span	/	year	More than 100000 hours
Warranty period	/	year	2
Product Size	Adhesive PDLC film (rolls)	Width: 1.0m/1.2m/1.5m/1.8m	
	Adhesive PDLC film (sheet)	Width: ≤1.8m	
MOQ	Adhesive PDLC film (rolls)	50m	
	Adhesive PDLC film (sheet)	0.5m²	

VS-90 (Adhesive PDLC Films)

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This adhesive film is deployed in settings where the highest standards of transparency and privacy are paramount, such as scientific research facilities, intelligence agencies, luxurious villas, presidential offices, super 5-star hotels, Hollywood theaters, and other elite environments demanding both crystal-clear visibility and absolute confidentiality.



Product Testing Details

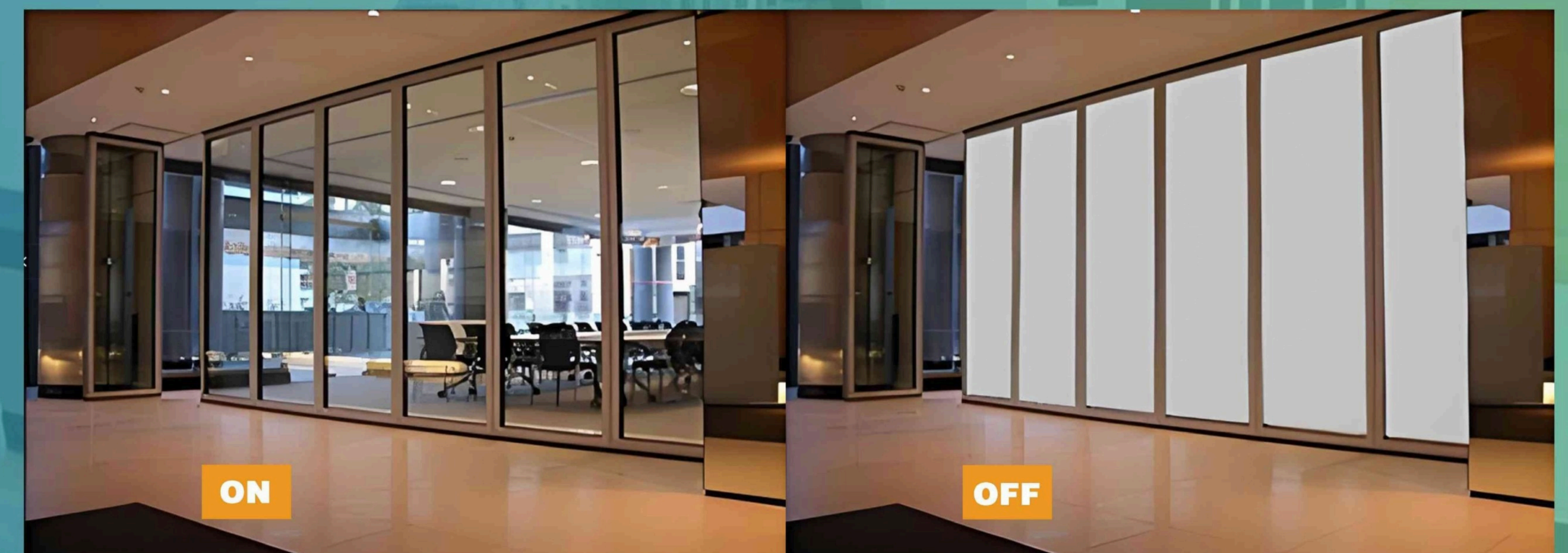
Rated voltage	ON	Volt	48
Power consumption	ON	VA/m ²	3.7
Paralle light transmittance	ON	%	94.2
	OFF	%	80.4
Full light transmittance	ON	%	97
	OFF	%	24
Haze	ON	%	1.74
	OFF	%	99.9
Film thickness	/	mm	0.47
Infrared blocking rate	ON	%	15
	OFF	%	68
Uv blocking rate	ON	%	99
	OFF	%	100
Response time	OFF→ON	ms	≤60
	ON→OFF	ms	≤20
Operating temperature	/	°C	-20~85
Life-span	/	year	More than 100000 hours
Warranty period	/	year	2
Product Size	Adhesive PDLC film (rolls)	Width: 1.0m/1.2m/1.5m/1.8m	
	Adhesive PDLC film (sheet)	Width: ≤1.8m	
MOQ	Adhesive PDLC film (rolls)	50m	
	Adhesive PDLC film (sheet)	0.5m ²	



VITRO SMART
PDLC & LED GLASS
LA TECHNOLOGIE AU SERVICE DU DESIGN

LAMINATED PDLC FILM

The PDLC laminated film is transformed into smart glass by compounding with adhesive layers (such as PVB, EVA, TPU, UA) between two pieces of glass. It can achieve the conversion between transparent and opaque glass under the regulation of external voltage. Widely used in building decoration materials such as curtain walls, escalators, stairs, skylights, partitions, glass walls, curtain wall doors and windows.

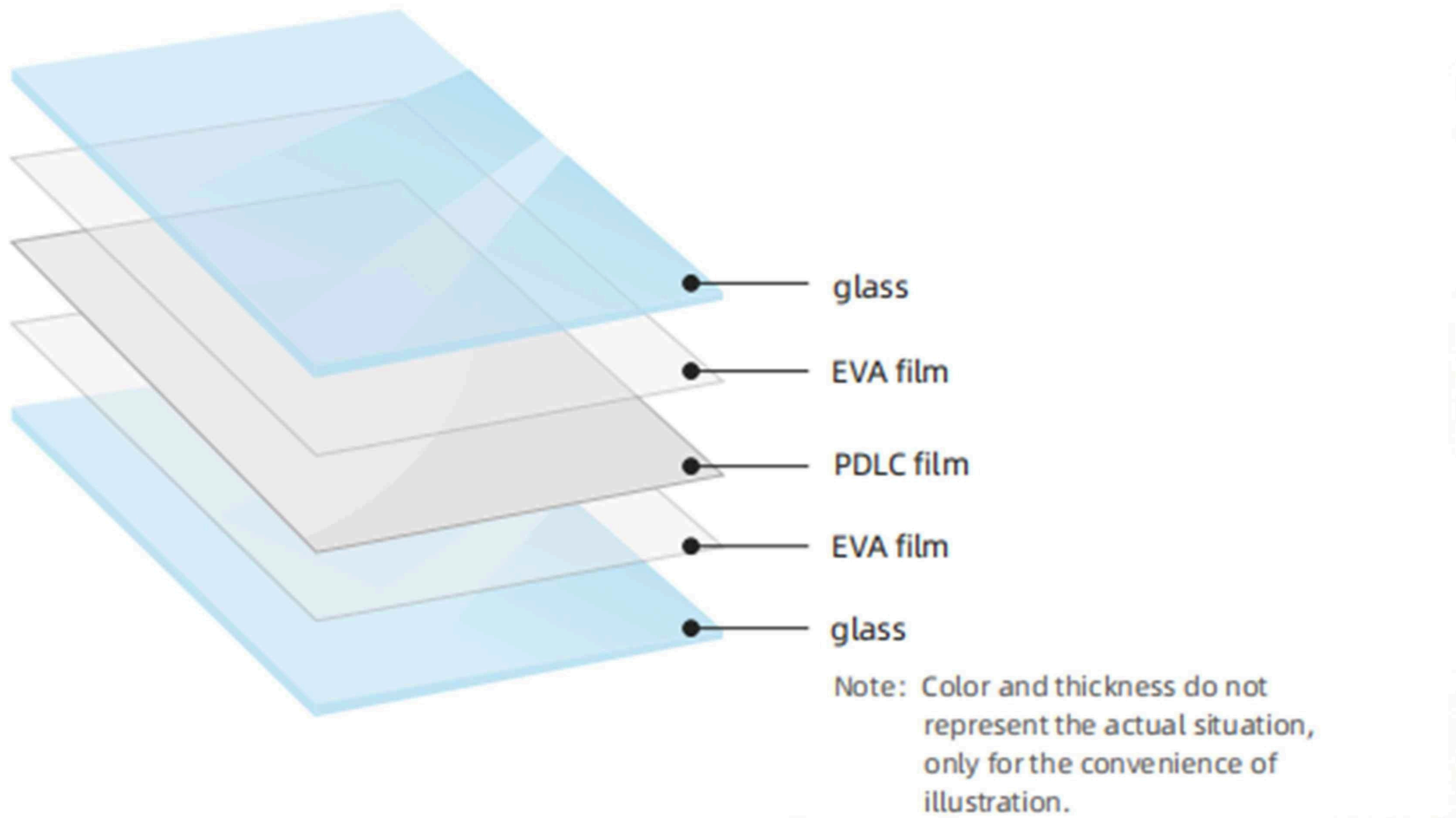


VSL-90 (Laminated PDLC Films)

GOOD FAITH CONTAINS
THE PROFESSIONAL QUALITY CAST



This versatile film is suitable for use in offices, meeting rooms, museums, and other locations, combining transparency, privacy, partitioning, and projection capabilities, making it an ideal choice for environments that require integrated visual and spatial management.



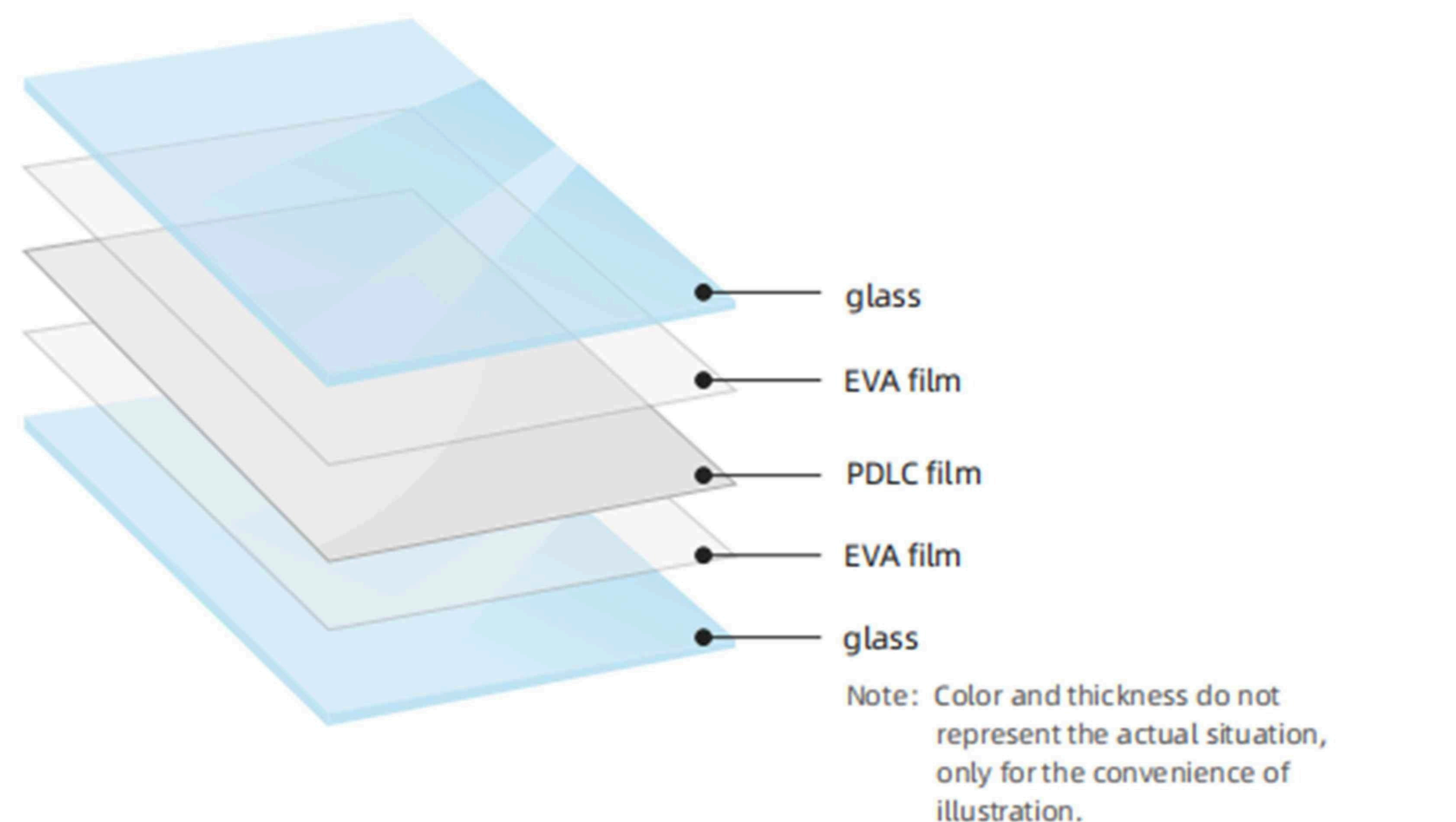
Product Testing Details			
Rated voltage	ON	Volt	60
Power consumption	ON	VA/m²	3.7
Paralle light transmittance	ON	%	84.27
	OFF	%	74.4
Full light transmittance	ON	%	90
	OFF	%	18
Haze	ON	%	2.58
	OFF	%	100
Film thickness	/	mm	0.38
Infrared blocking rate	ON	%	12
	OFF	%	77
Uv blocking rate	ON	%	60
	OFF	%	95.5
Response time	OFF→ON	ms	≤60
	ON→OFF	ms	≤20
Operating temperature	/	°C	-20~85
Life-span	/	year	More than 100000 hours
Warranty period	/	year	2
Product Size	Laminated PDLC film (rolls)	Width: 1.0m/1.2m/1.5m/1.8m	
	Laminated PDLC film (sheet)	Width: ≤1.8m	
MOQ	Laminated PDLC film (rolls)	50m	
	Laminated PDLC film (sheet)	0.5m²	

VSL-92 (Laminated PDLC Films)

GOOD FAITH CONTAINS
THE PROFESSIONAL QUALITY CAST



This versatile film is designed for a variety of settings including offices, conference rooms, and museums. It offers a blend of clear visibility, privacy, space division, and the ability to serve as a projection surface, making it perfect for spaces that need a cohesive approach to visual and spatial management.

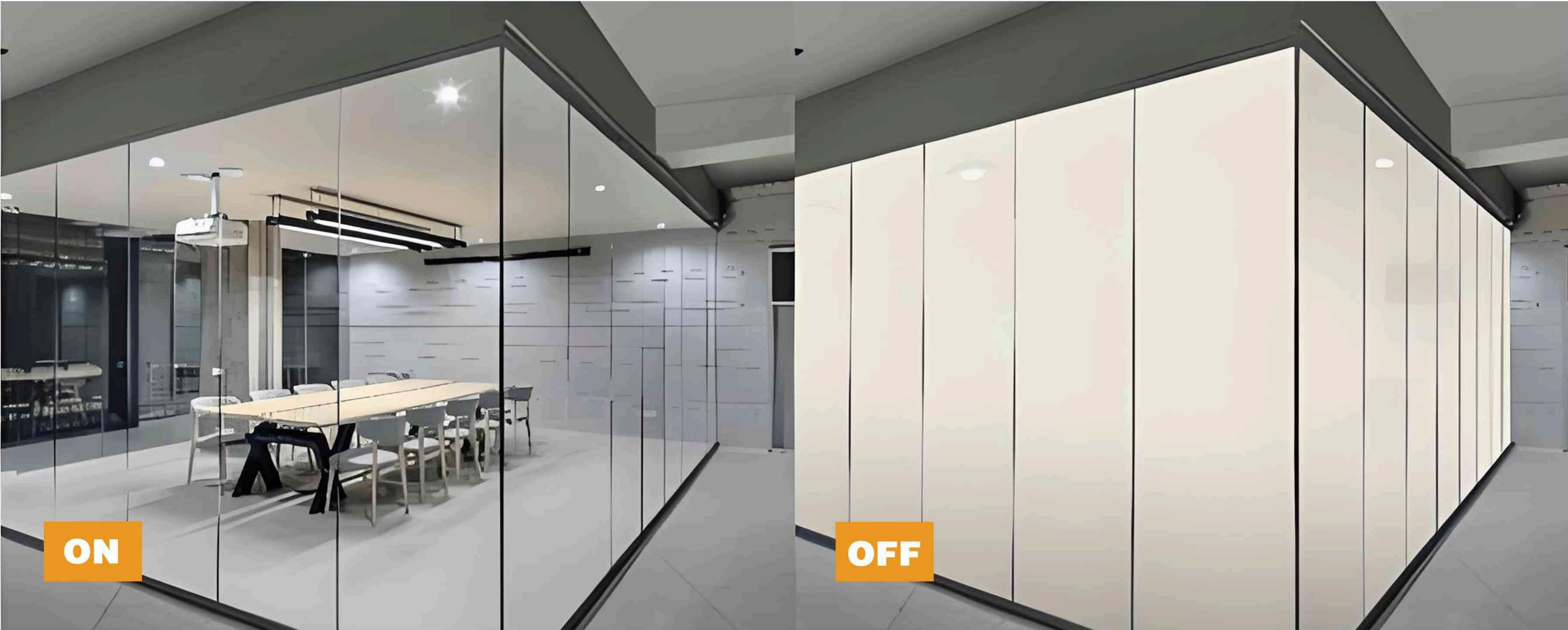


Product Testing Details

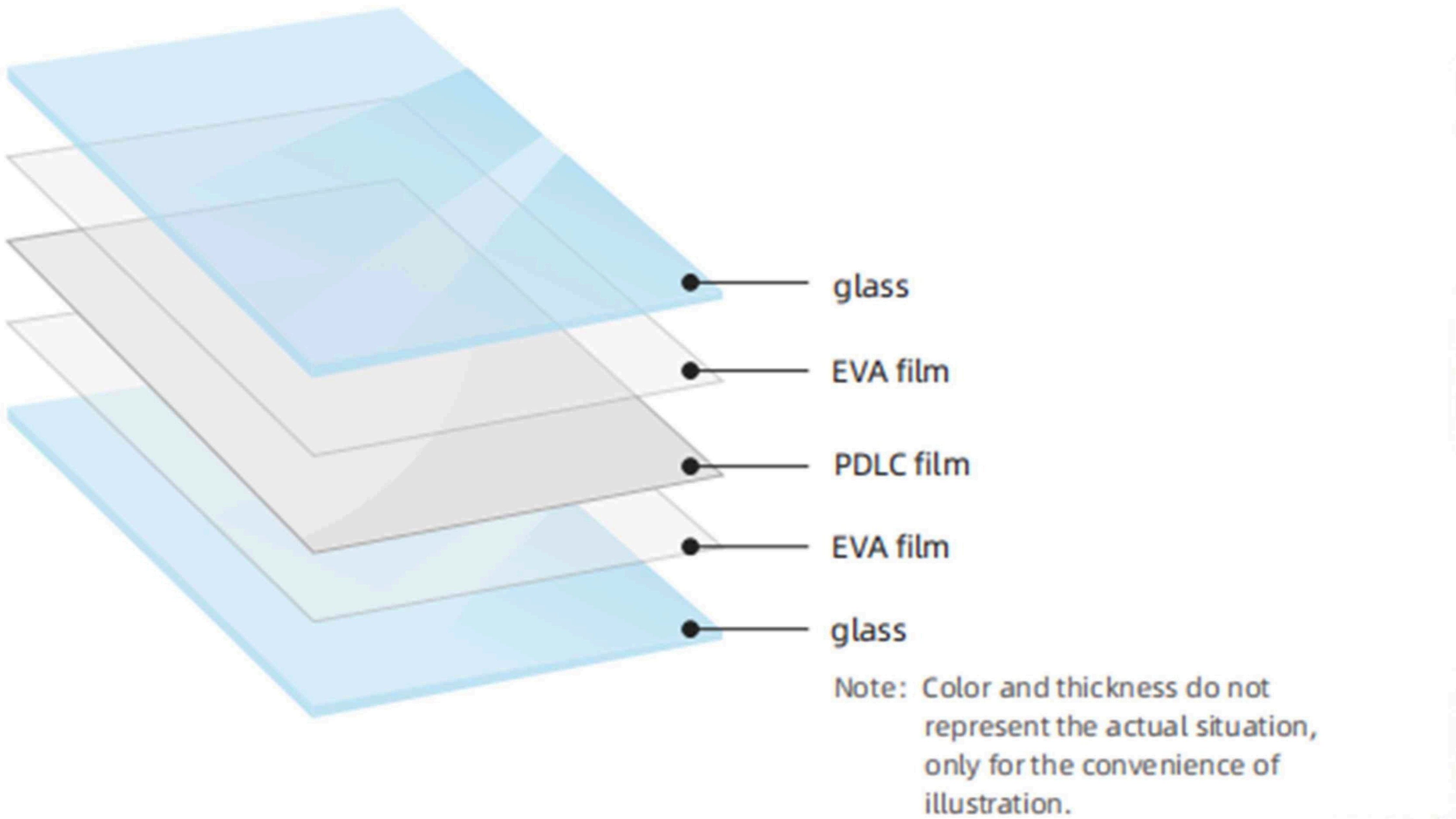
Rated voltage	ON	Volt	48
Power consumption	ON	VA/m ²	3.7
Parallel light transmittance	ON	%	88.15
	OFF	%	79.4
Full light transmittance	ON	%	92
	OFF	%	25
Haze	ON	%	2.36
	OFF	%	99.7
Film thickness	/	mm	0.38
Infrared blocking rate	ON	%	13
	OFF	%	68
Uv blocking rate	ON	%	59
	OFF	%	93.2
Response time	OFF→ON	ms	≤60
	ON→OFF	ms	≤20
Operating temperature	/	°C	-20~85
Life-span	/	year	More than 100000 hours
Warranty period	/	year	2
Product Size	Laminated PDLC film (rolls)	Width: 1.0m/1.2m/1.5m/1.8m	
	Laminated PDLC film (sheet)	Width: ≤1.8m	
MOQ	Laminated PDLC film (rolls)	50m	
	Laminated PDLC film (sheet)	0.5m ²	

VSL-94 (Laminated PDLC Films)

GOOD FAITH CONTAINS
THE PROFESSIONAL QUALITY CAST



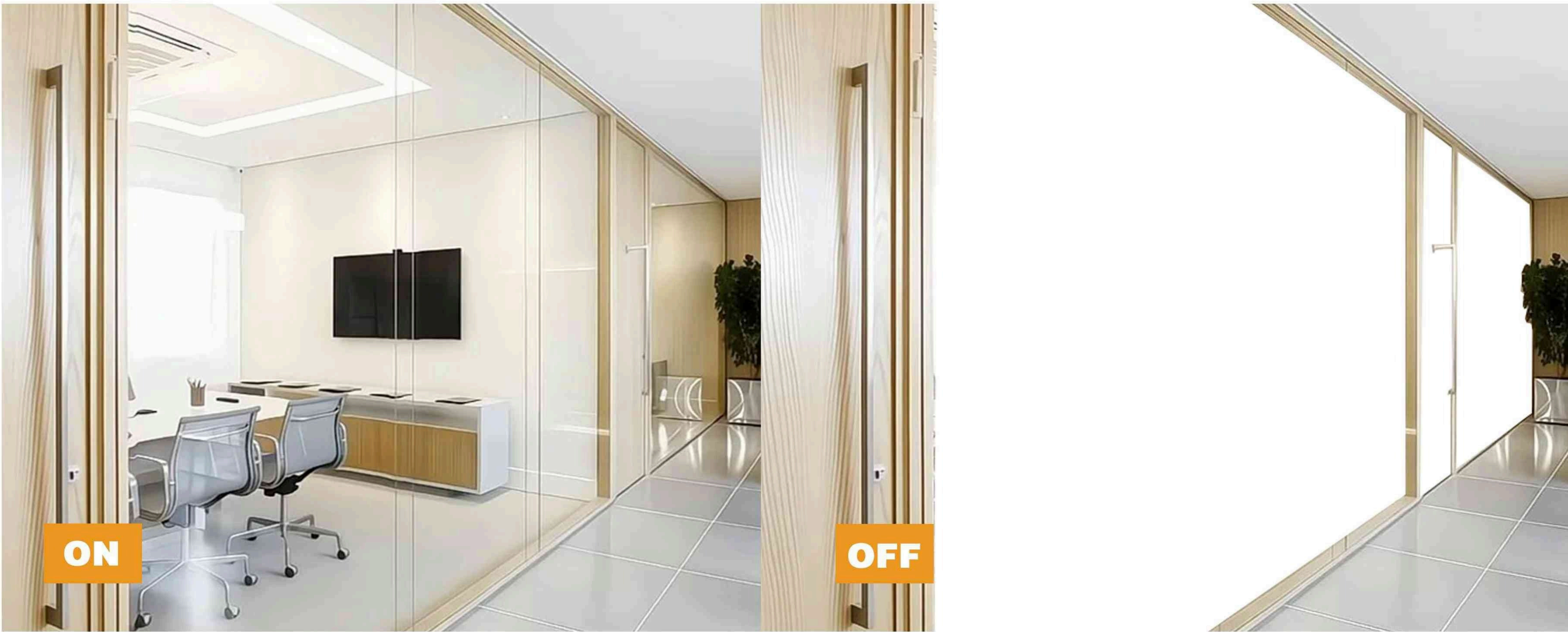
This versatile film is perfect for a range of applications in offices, boardrooms, museums, and beyond. It seamlessly integrates features like transparency, privacy, space division, and projection functionality, making it an excellent choice for spaces that need a streamlined approach to managing visuals and spatial arrangements.



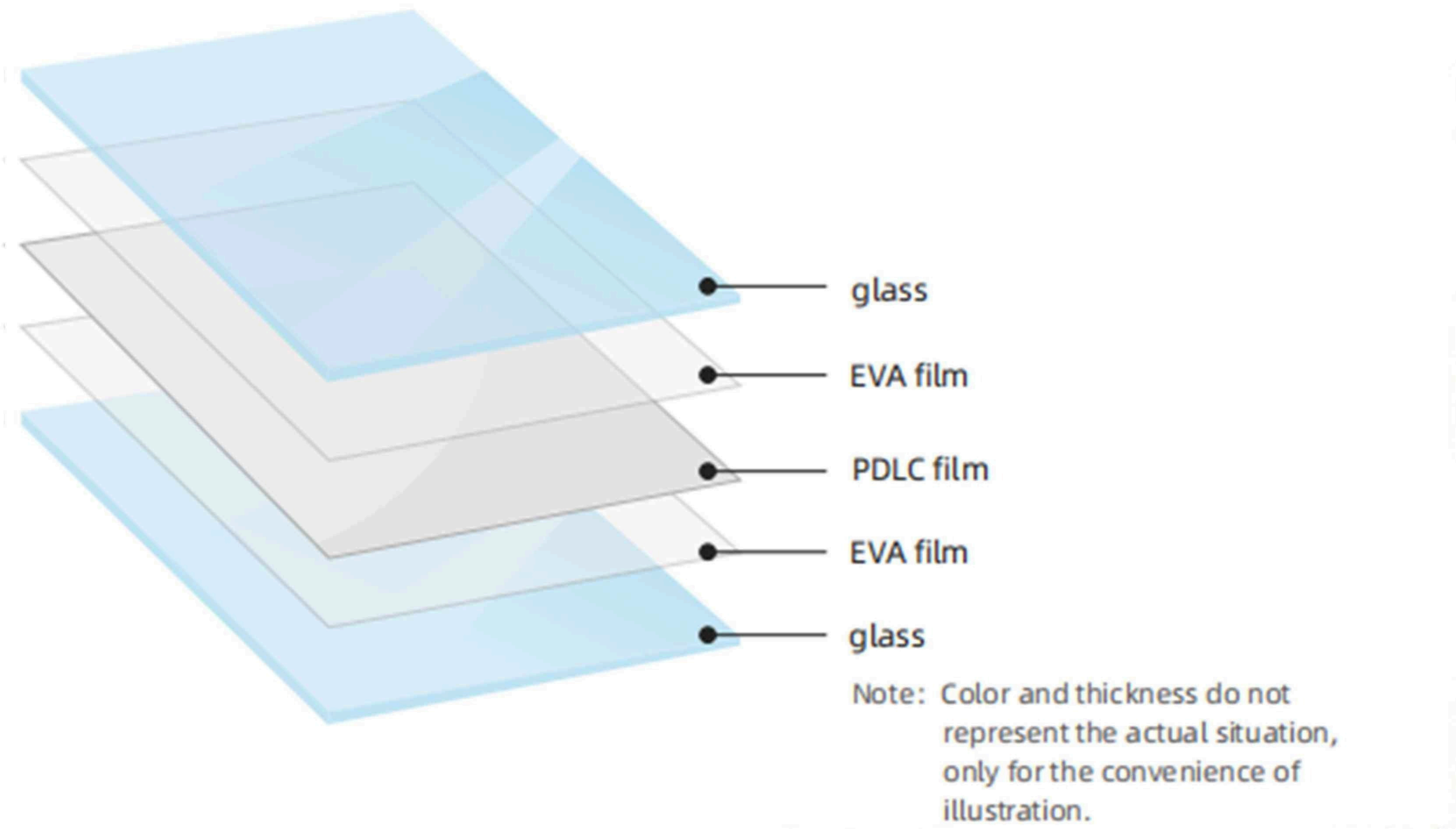
Product Testing Details			
Rated voltage	ON	Volt	60
Power consumption	ON	VA/m²	3.7
Paralle light transmittance	ON	%	92.07
	OFF	%	77
Full light transmittance	ON	%	94
	OFF	%	19
Haze	ON	%	1.81
	OFF	%	100
Film thickness	/	mm	0.38
Infrared blocking rate	ON	%	10
	OFF	%	77
Uv blocking rate	ON	%	58
	OFF	%	95.4
Response time	OFF→ON	ms	≤60
	ON→OFF	ms	≤20
Operating temperature	/	°C	-20~85
Life-span	/	year	More than 100000 hours
Warranty period	/	year	2
Product Size	Laminated PDLC film (rolls)	Width: 1.0m/1.2m/1.5m/1.8m	
	Laminated PDLC film (sheet)	Width: ≤1.8m	
MOQ	Laminated PDLC film (rolls)	50m	
	Laminated PDLC film (sheet)	0.5m²	

VSL-97 (Laminated PDLC Films)

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This transparent adhesive film caters to high-end applications requiring utmost clarity and discretion, such as in scientific labs, intelligence services, upscale residences, executive suites, premier hotels, cinematic venues, and other exclusive settings where both transparency and confidentiality are paramount.



Product Testing Details			
Rated voltage	ON	Volt	48
Power consumption	ON	VA/m²	3.7
Paralle light transmittance	ON	%	94.2
	OFF	%	84.4
Full light transmittance	ON	%	97
	OFF	%	27
Haze	ON	%	1.13
	OFF	%	99.6
Film thickness	/	mm	0.38
Infrared blocking rate	ON	%	10
	OFF	%	65
Uv blocking rate	ON	%	64
	OFF	%	96.9
Response time	OFF→ON	ms	≤60
	ON→OFF	ms	≤20
Operating temperature	/	°C	-20~85
Life-span	/	year	More than 100000 hours
Warranty period	/	year	2
Product Size	Laminated PDLC film (rolls)	Width: 1.0m/1.2m/1.5m/1.8m	
	Laminated PDLC film (sheet)	Width: ≤1.8m	
MOQ	Laminated PDLC film (rolls)	50m	
	Laminated PDLC film (sheet)	0.5m²	



VITRO SMART
PDLC & LED GLASS
LA TECHNOLOGIE AU SERVICE DU DESIGN

COLORFUL PDLC FILM

Toned light-control films, with their unique light-modulating capabilities, privacy protection, energy-saving effects, and broad application fields, have become indispensable materials in modern smart buildings and interior design. As technology advances, the application prospects for toned light-control films are vast, and they are set to play an increasingly important role in future life.



PE protective film

ITO conductive film

PDLC

ITO conductive film

OCA glue

PET

Silica gel

PET release film

Note: Color and thickness do not represent the actual situation, only for the convenience of illustration.

Gray adhesive PDLC film	Total Thickness		0.47mm
	Cut to Sheet	Width	100-1800(mm)
		Length	100-50000(mm)
	Roll	Width	1200,1500,1800(mm)
		Length	30meters/50meters
	Roll tube	Inner Diameter	6 inches
Gray laminated PDLC film	Total Thickness		0.38mm
	Cut to Sheet	Width	100-1800(mm)
		Length	100-50000(mm)
	Roll	Width	1200,1500,1800(mm)
		Length	30meters/50meters
	Roll tube	Inner Diameter	6 inches
Other colors adhesive PDLC film (black,blue,green,orange,red)	Total Thickness		0.54mm
	Cut to Sheet	Width	100-1500(mm)
		Length	100-50000(mm)
	Roll	Width	1500(mm)
		Length	30meters/50meters
	Roll tube	Inner Diameter	6 inches

Items	ON/OFF		Test Methods/Standards
Operating voltage	ON	60V	Multimeter/Voltage Regulator,WGW
Power consumption	ON	≤ 5W/m ²	Multi-parameter electric measuring instrument
Viewing angle	ON	≥ 160°	Visual Inspection
Uv blocking rate	OFF	≥ 99%	Optical transmittance tester
Infrared blocking rate	OFF	≥ 60%	
Response time	OFF→ON	≤ 30 ms	Liquid crystal parameter integrated tester
	ON→OFF	≤ 200 ms	
Operating temperature	--	-30℃~50℃	constant temperature and humidity testing machine
Life-span	--	100000 Hours	GB18910.5-2008
Switching times	--	22 million times	Self-made on/off tester

PRODUCT CASE

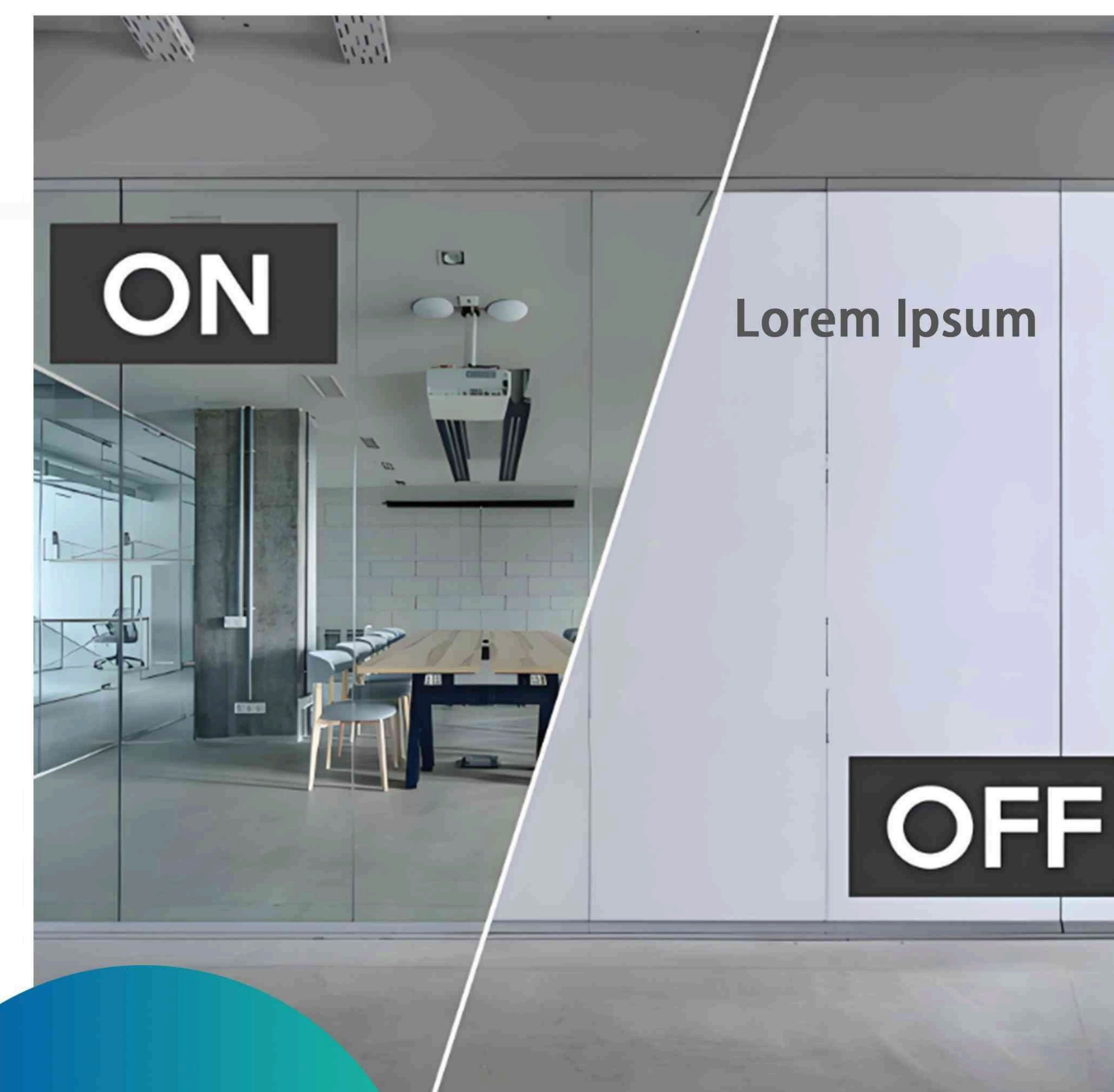
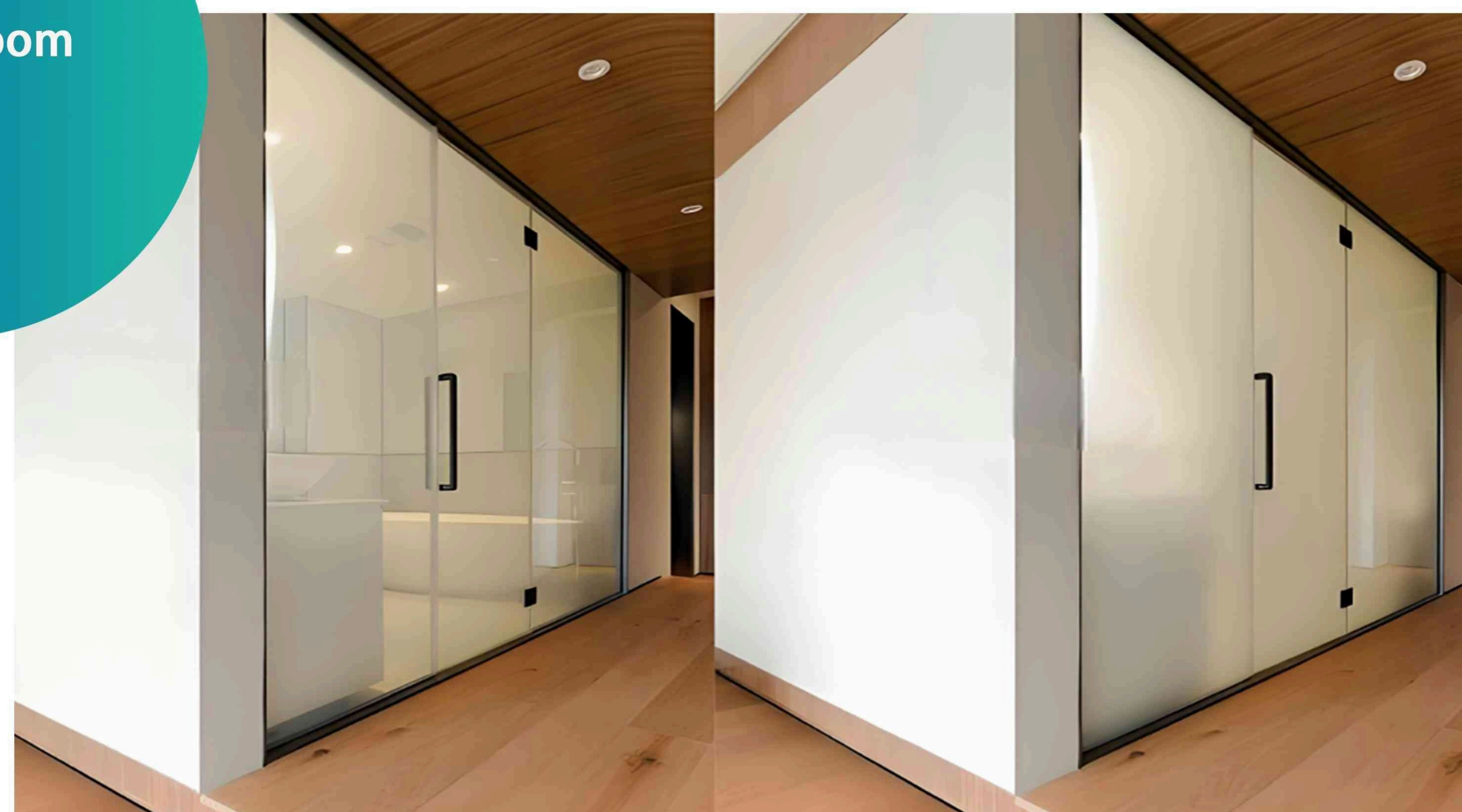
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Dance room
partition



Utility room
door



Conference room
partition

