

creation



ZEELANG

Shenzhen Zeelang Glass Co., Ltd
Shenzhen Zeelang Digital Technolgy Co., Ltd

Smart PDLC Film



① Products Specification

② Technolgy Data

③ Application

④ Installation Insturction

⑤ More about us

What is PDLC film

Definition:

Smart film, also called Switchable film, is a product that is capable of adjusting light transmission between transparency and opaque while using AC power.

Structure: ITO conductive film+PDLC Liquid+ITO Conductive film

Length : Unlimited

Width: 10-1500MM or customized

Thickness: 0.44mm

Color: white , light grey , dark grey

Application: Project screen, Office privacy partition, Car window, Commercial advertisement, Home privacy window glass etc.

Self adhesive smart film characteristics

- 1, Privacy
- 2, energy conservation
- 3, Project curtain wall
- 4, environmental protection





Privacy

- Electronic curtain --- for privacy.
- Switch-OFF for privacy protection.
Switch-ON for great vision.



Save Energy

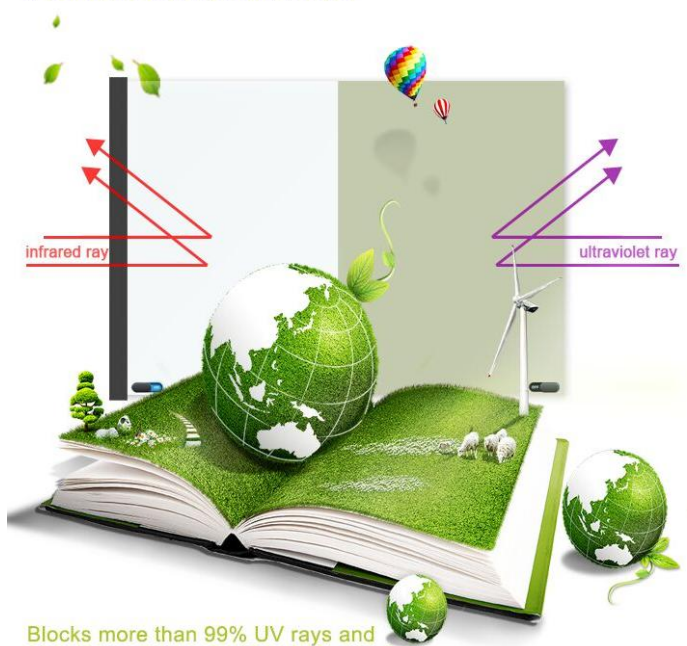
- To save your resource from glass construction



Projection curtain wall

- Easily conversion it into home cinema or advertising wall.

ENVIRONMENTAL

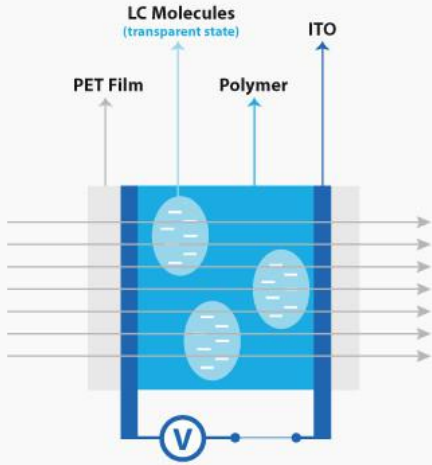


Blocks more than 99% UV rays and 98% infrared ray ,avoiding fading in the room.

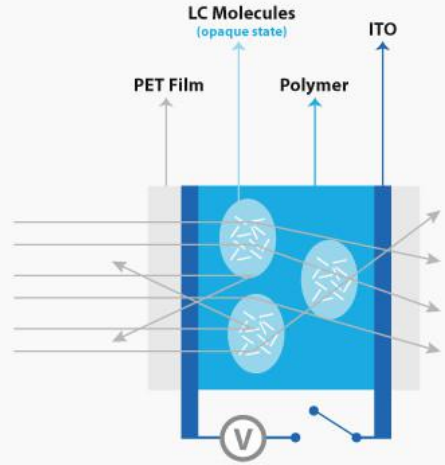
Environmental

- Unit UV & IR harming. Becoming a comfortable environment

Hot it works?

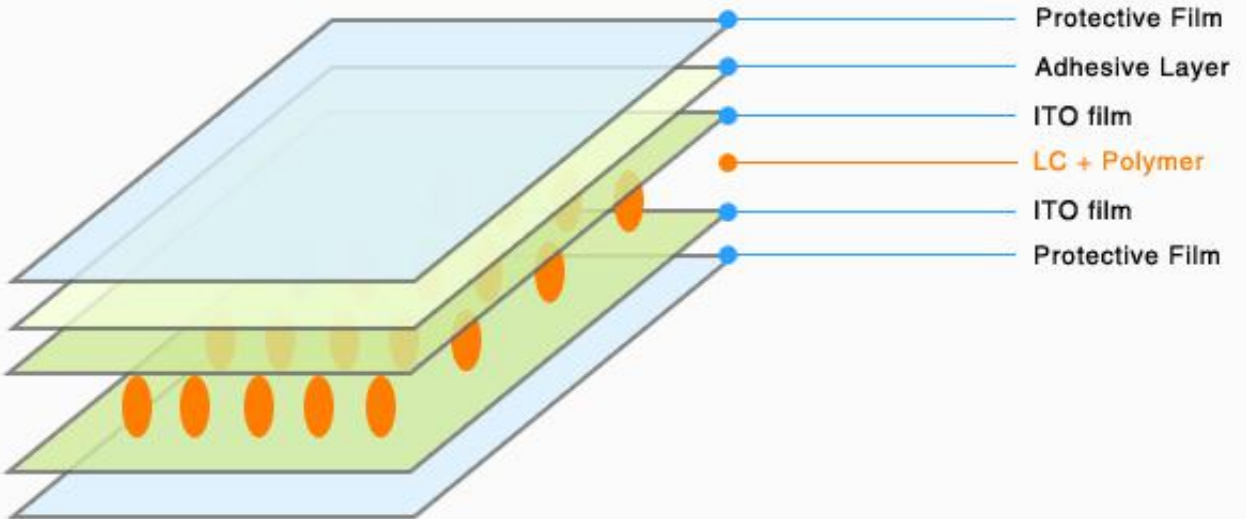


Power ON : By changing the orientation of the liquid crystal molecules with an electric field, it is possible to vary the intensity of transmitted light.



Power OFF : As liquid crystal molecules are randomly orientated, restricting lights from passing through.

Structure



Smart Self-adhesive Film Structure

Technology Data

- Power: On: Transparent, Off: Opaque
- Transmittance: 85% ± 1
- Solar Reduction: up to 40%
- UV Block: more than 98%
- Operating Temperature: -13°F ~ 185°F
- Operating Voltage: DC12-60V (Standard Line Voltage)
- Energy Use: 0.4 Watts/SF

Stability Test

Film passing four kinds of stability testing normal condition as follows:

High Temp. Testing : 80°C× 500 hr

Low Temp. Testing: -10°C× 500 hr

High humidity test: 60°C/95% RH × 500 hr

TCT:-10°C(30min)~80°C(30min) × 10 times

Testing item		Data	Method
Thickness(μm)		600±50	Micrometer
Silica Gel thick(μm)		20±5	
Adhesive force (g/50mm)	To other	Below 10g	Tensiometer
Degumming test		PAS	ESPC SOP-Q-0011
Tea-up Test		L: 382.7 N	ASTM D1004-07
		W: 389.6N	
Tensile strength and Break elongation rate test		W	L:76.9%
Hardness Test		3H/500g(No hardness)	
Adhesion test		100/100	
Visible Light transmittance(%)	ON	>85%	
	OFF	>50%	
Parallel light transmittance (%)	ON	>80%	
	OFF	<8%	
Haze(%)	ON	<8%	

Where can I use?

Conference room



Living room



Hospital ward



Shower room



How can I install?

- 1) Power-off test.
- 2) glass surface Cleaning: Using lens cloth to remove dust or oil on the surface.
- 3) film opening: Tearing it to 1CM. Please don't touch it with your fingers to avoid dust.
- 4) Pasting: Put it on the basic material. Aligning with upper line. slowly opening while pasting, pasting as slowly as possible and confirming the attached indeed, to avoid air bubbles
- 5) Wiring: Wiring the external circuit. Try to make sure that it will not influence on the use and appearance.
- 6) edge Sealing: Using professional skill to make sure the edge without gap.
- 7) Power-on test.



Notice

- Self-adhesive. No need glue.
- Don't bend or warp it too hard.
- guarantee glass surface is clean before installation.
- Avoid scratch.
- Little bubble not affecting transmittance.

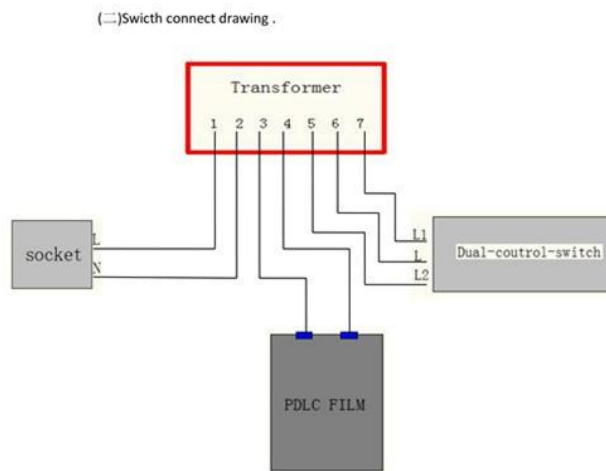
Wiring:

Converter is on-off switch control.:

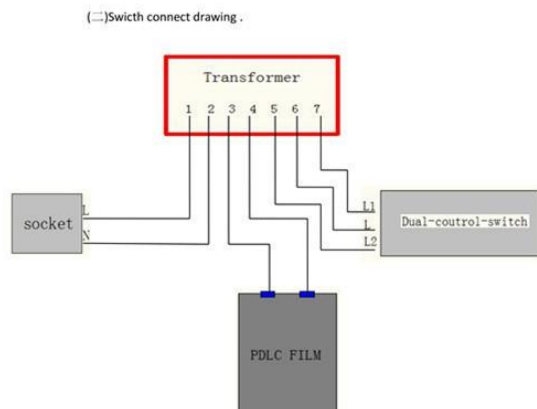
- 1#、 2# are input power(connecting power supply)
- 3#、 4# are output power(connecting film)
- 5#、 6# are for remote control
- 5#、 7# are for ON-OFF control.

Please double check the wiring to avoid any error.

1, When dual-control is not in use ,You can short-circuit 5# &6#(Already done at the original),and remove control is workable



2, When dual-control is in use. Please dismantle 5# & 6# short=circuit. And 6# link to **L line** panel switch. 5#, 7# link to L1, L2. Remove control and switch is workable



Product maintenance:

- Cleaning: Water is not allowed for cleaning the film to avoid short-circuit.
- Acceptance deadline: 7-15 days after receiving the film without being opened.



How to contact us?

YOUR COMMENTS
ARE WARMLY
WELCOME!



Tel: +86-755-29457202
Fax: +86-755-23194101
E-mail: sales@zeelangglass.com

