



ZHIYUAN BUILDING MATERIALS CO., LIMITED

TEL: +86-20-29170376 FAX: +86-20-29170376

Email: mark@oypdlc.com HP:+86-18988942570

PRODUCT DESCRIPTION

Electrical Switchable Smart Glass is composed with one sheet Polymer Dispersed Liquid Crystal (PDLC film) and double tempering glass then lamination under high-pressure & high-temperature.

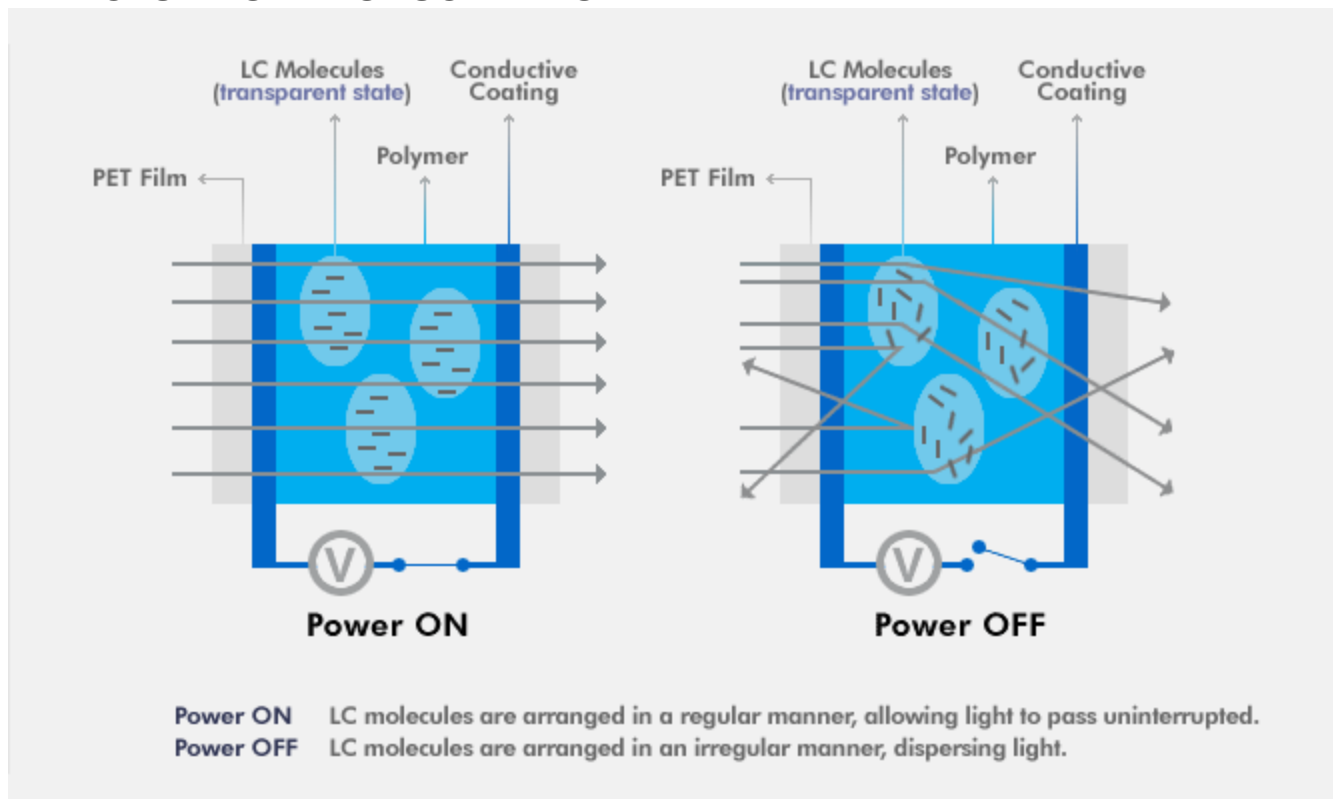
Switchable Smart Glass also call Privacy Glass, electric privacy glass for window, electronic privacy glass, Functional Glass, Privacy glass, privacy glass for partition, glass for window and door, Smart glass electric switchable glass for Door, Smart Glass Office partitions, Switchable Electrochromic Glass

● HOW IT WORK?

On natural condition, the arrangement of the liquid crystal inside the glass is ruleless, the refractive index of liquid crystal is lower than the polymer outside, incident light scatters on the polymer, which is milk-white, means opaque.

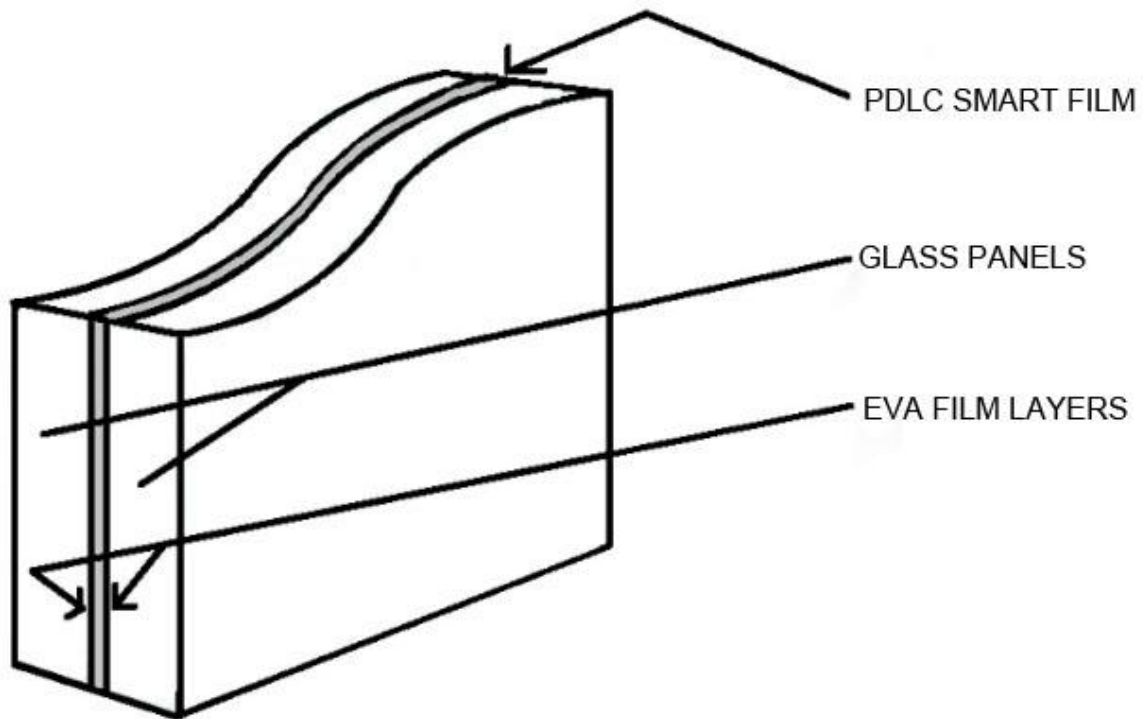
When power on, the liquid drop of the polymer with liquid crystal dispersion will rearrange, the liquid crystal will change from ruleless arrangement to ordered arrangement, which makes the same refractive index of the liquid crystal and the polymer, so incident light can pass through completely to form transparent condition.

● PICTURE OF PRODUCT THEORY:



● HOW THE SWITCHABLE SMART GLASS WAS MADE?

SEE AS BELOW:



The PDLC film was sandwich laminated between 2 layers tempered glass, finished products is much more stable, and long time working, especially for environment with much moisture, humidity.

● PRODUCT-FEATURE

1. Transparent when power on, opaque when power off; freely switching; concise and convenient.
2. Various controlling ways: switch, light control, voice control, thermal control, remote control, remote network control, etc, custom made by customers' requirement
- 3.Environment Friendly and Energy saving
- 4.Superior Light Transmittance
- 5.Blocks 99% of UV Rays to preserve home furnishings
- 6.Block unwanted views and viewers
- 7.Easy to install, operate and maintain

● TECHNICAL SPECIFICATIONS

Thickness	Double tempered glass thickness	4+4,5+5,6+6,8+8,10+10,12+12 (mm)
	a piece of Pdlc-interlayer thickness	0.38mm approximately
Max size	1800×3600mm	
Life time	>50,000hr (ON)	
View angle	120°	

Optical Properties	Visible Light Transmission	ON	>80%
		OFF	<1%
	Visual Angle	ON	150°
	UV Blocking	OFF/ON	>99%
	Haze	OFF/ON	94%/6%
Electrical Properties	Operating Voltage	ON	60AC
	Frequencies	ON	50 to 60Hz
	Current	2mA/m2	2mA/m2
	Response Time	ON==>OFF	10s
		OFF==>ON	20ms
	Power Consumption	ON	5W/m2/hr
Specification	Durable Temperature	-30°C to 100°C	
	Life Time	>50000hr	
	Thickness	4mm+4mm--12mm+12mm	

● APPLICATION:



Power on



Power off

OFFICE

BATHROOM



Power off



Power on



Power off



Power on

BANK

HOSPITAL



Power off



Power on