

# Top 5 super smart switchable glass supplier in China



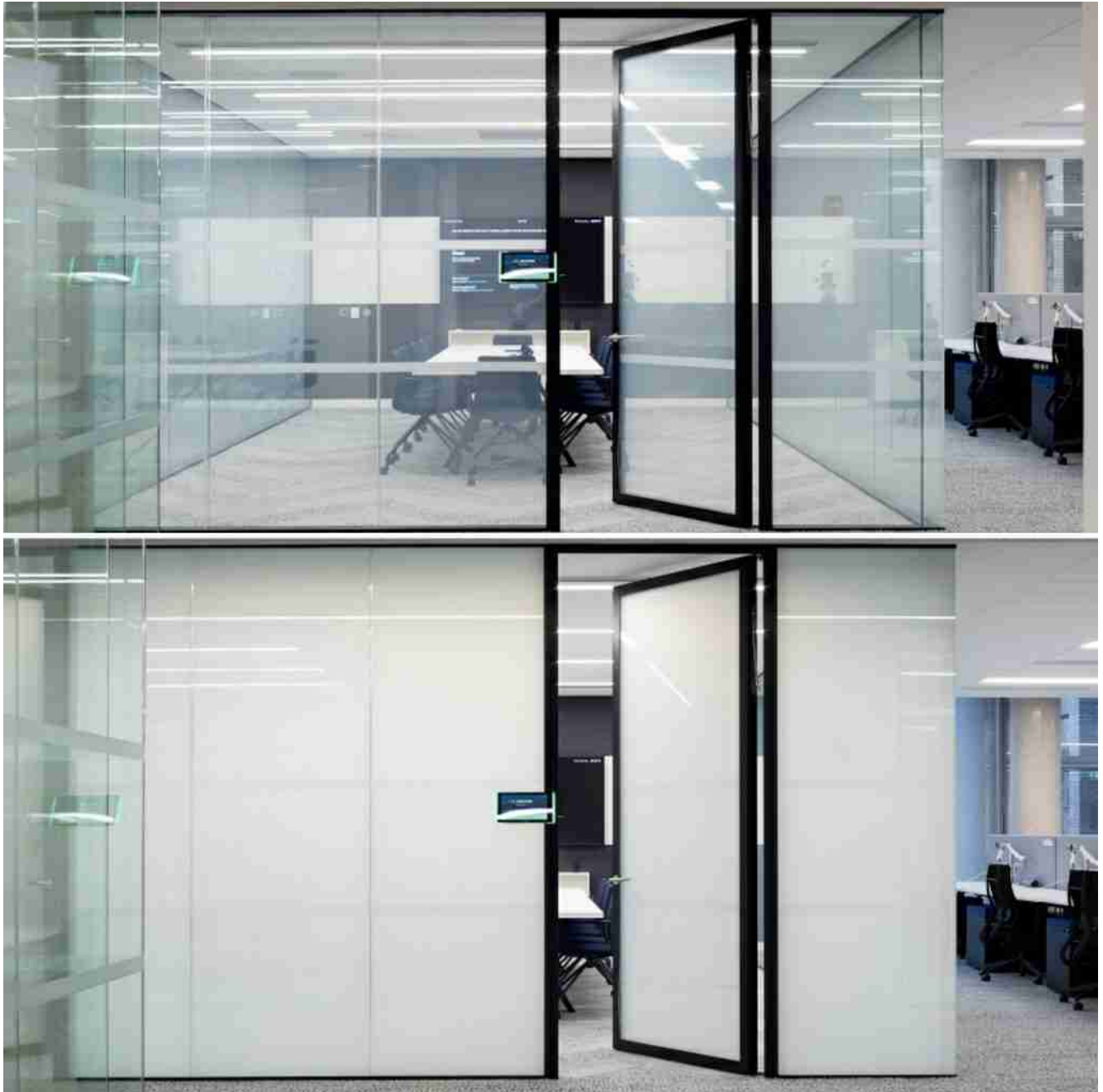
## What is switchable glass?

Switchable glass is also called PDLC glass or switchable privacy glass. As a new type of special privacy glass has been welcomed by more and more people.

Switchable glass is processed by laminated the switchable film between two pieces of glass, using [laminated technology](#), let the switchable film always be sandwiched between the glass without separating.

The switchable film, (also known as smart switchable film or PDLC film). The active component in switchable film (PDLC – Polymer Dispersed Liquid Crystal) consists of liquid crystal microdroplets which are suspended in the polymer. The natural

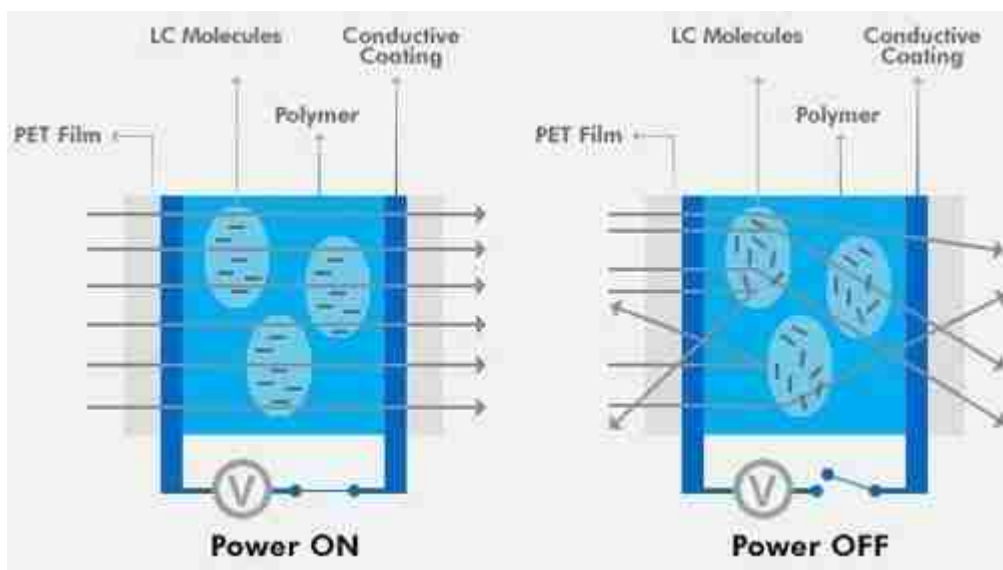
state of the film sees the PDLC molecules arranged in a way that causes light waves to refract through and reflect away from the surface, distorting the state of the glass to present as frosted. When an electrical current is passed through the PDLC layer, the liquid crystal molecules polarise, allowing light to pass through.



# How does the switchable privacy glass work?

What do you think if could achieve privacy with just the flick of a switch? The switchable privacy glass turns from clear to opaque in less than 1 second. All it takes is an electrical current to activate the unique smart switchable glass properties.

The dimming principle of switchable glass is: in the natural state, its internal liquid crystal molecules are arranged without rules, the refractive index of the liquid crystal is lower than the refractive index of the polymer outside, the incident light scattering in the polymer, is milky white, that is, opaque. After electrification, the dispersion distribution Liquid droplets in the liquid crystal polymer are rearranged, and the liquid crystal changes from disorder to the directional orderly arrangement, so that the refractive index of the liquid crystal is the same as that of the polymer, and the incident light can completely pass through to form a transparent state.



# Switchable glass parameters

Our switchable privacy glass has passed various stringent tests, ensuring the high quality of the product. When power is on, the all-optical pass rate is up to 82%, the fog is less than 3.5% when power is off, the fog is up to 95%, the power consumption is less than 4w/ m<sup>2</sup>, the photoelectric performance is excellent, and reaches the international advanced level.

Item		Mode	Specification
Optical parameter	Visible Light transmittance	ON	83%
		OFF	>60%
	Parallel light transmittance	ON	75%
		OFF	<2%
	Atomization rate	ON	<4%
		OFF	96%
	Maximum perspective	ON	145°
Electrioal parameter	Operating voltage	ON	AC48V~65V/50Hz
	Responce dissipation	OFF-ON	<10ms
	Responce time	ON-OFF	<5W/m <sup>2</sup>

## Switching glass features

1. **Privacy protection:** The biggest function of intelligent dimming glass is the privacy protection function, which can control the transparency of glass at any time.

2. **Projection function:** switchable privacy glass can be projected in a state of power failure.
3. **Safety:** Switchable privacy glass has all the characteristics of safety glass, which the film in the middle sticks glass firmly, can prevent debris splash hurts when the glass is broken. On the other hand, the strength of this glass is also excellent.
4. **Energy saving and environmental protection:** Switchable privacy glass can block the heat, with more than 99 % UV light, and more than 90% IR light.
5. **Soundproofing features:** Can partially block noise.
6. **Stable performance and long service life:** The number of switches reaches more than 30 million, and it can be used for more than 50,000 hours under the open state, and it can be used normally for 15 years.
7. **Diversified control methods:** Manual switch, remote control, trigger control, voice control, mobile APP control, timing control, remote network control, etc., can be customized according to customer needs.

## Applications

Switchable privacy glass is a tool to create dynamic, expansive, light-filled environments with on-demand opacity.



## Office, conference room applications

The office area is divided hard to avoid by the partition of the wall of a few sides wall or ground glass can appear narrow suffocate, use transparent glass to design completely lack close sex again, and had dimming glass, you want to press remote control gently only, can control glass easily, let the glass be in transparent with not Transparent states move quickly between each other, leaving the space





## Hotel application

Using switchable privacy glass, allowing the space to be freely retracted, not only can enlarge the space that is not spacious, but also protect privacy when necessary, adding a lot of fun and convenience to the guests.



## Shower room, toilet application

The transparent and opaque shower room always gives a sense of mystery. If these two mysteries are combined into one, the mystery is multiplied, and the intelligent dimming glass can instantly control the opening and privacy of the space, applied in the shower room, bathroom, It doesn't take up too much space, but it can add a mysterious taste to life.



## Station ticket office applications

With the switchable privacy glass features such as openness, privacy, and sound insulation, you can have a quiet and private working environment in a noisy place.



# Quality

- Subject to BS
- Subject to AS
- Subject to ASTM
- Subject to CE

## Production details

1. **Production name:** switchable glass
2. **Glass color:** clear, ultra-clear, tinted glass
3. **Switchable film color:** purple, green, orange, yellow, blue, red, gray, black, etc.
4. **Size:** customer's requirement;
5. **OEM:** Provided





blue color switchable glass

# Certificate



Packing and delivery:



Get in touch with [Shenzhen Dragon Glass](#) to see how our extensive range of functional, easy-to-use switchable glass products can amazing you.