

## **Electrically switchable smart glass,4+4 PDLC switchable glass manufacturers**

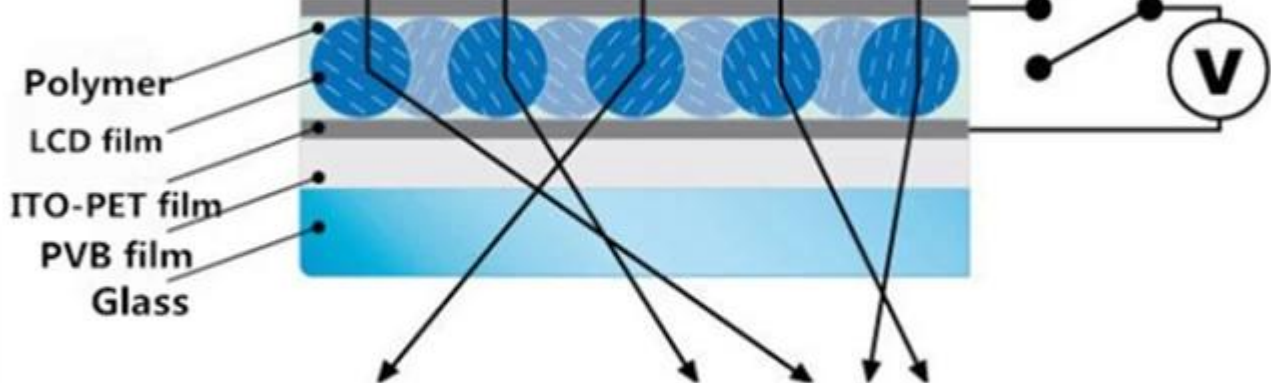
### **PDLC film technology:**

1. Without power the liquid crystal molecules (microdroplets) are disordered. This prevents light from penetrating the film, rendering it opaque.
2. When power is applied to the smart film the liquid crystal molecules are forced into alignment, rendering it transparent.

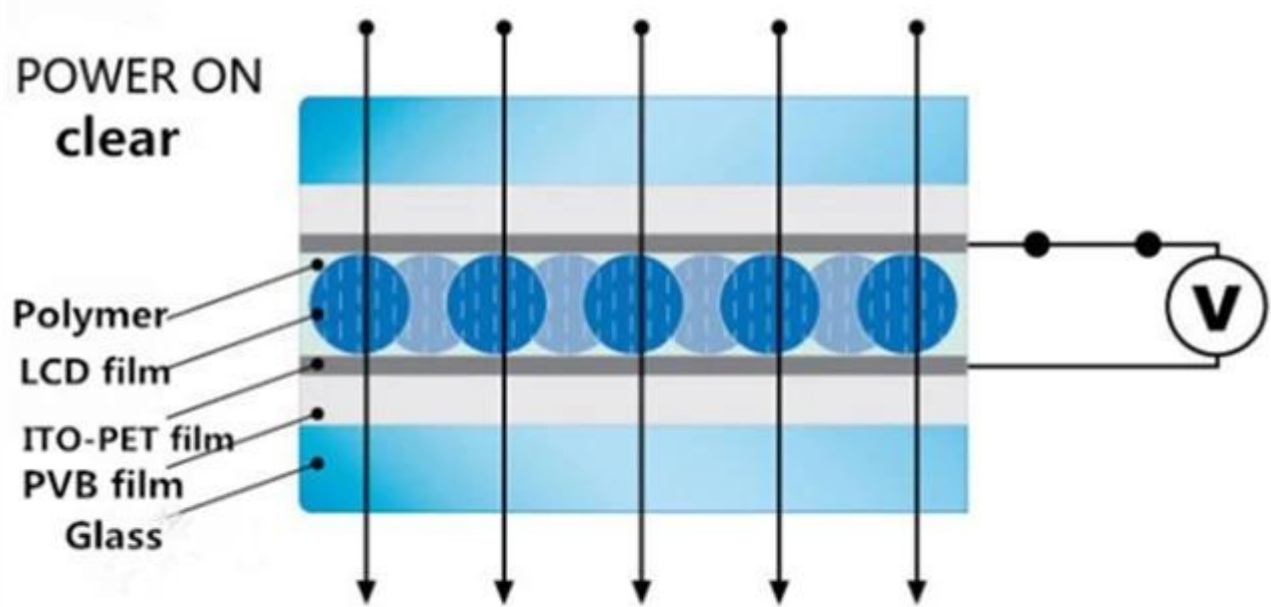
Used a PDLC film laminate between two pieces of glass. When no voltage is applied, the suspended particles are randomly organized, thus blocking and absorbing light. When voltage is applied, the suspended particles align and let light pass. Varying the voltage of the film varies the orientation of the suspended particles, thereby regulating the tint of the glazing and the amount of light transmitted.

4+4 PDLC laminated glass is used 2 piece [4mm good quality clear float glass](#) (or [4mm clear tempered glass](#)), with PDLC smart film and PVB inter-layer film. PVB inter-layer film has strong tenacity and can absorb and weaken a mass of striking energy. Even if it's broken, the splinters will stick together and not scatter.

POWER OFF  
opaque



POWER ON  
clear



**Safety Switchable Glass Characteristic:**

- Changes from opaque to clear with switch
- Blocks 99% UV light when turned to opaque
- Provides privacy with a touch of switch
- Saves costs for heating, air-conditioning and lighting

- Avoids the cost of installing and maintaining blinds or curtains
- Degree of transparency can be controlled

### **Switchable privacy glass specification:**

Acceptable thickness:

4mm glass+PDLC film+4mm glass

5mm glass+PDLC film+5mm glass

6mm glass+PDLC film+6mm glass

8mm glass+PDLC film+8mm glass

Any composition as per customer's requirement

Glass size: Max 3000\*5000mm, when size smaller than 1830\*3300mm, one electrode is enough, larger than 1830\*3300mm, need to use two electrodes

PDLC film: thickness 0.5mm, the widest size 1500mm, and no limit on the length.

PDLC laminated glass can used tempered glass to make more safety tempered laminated smart glass,also can process in to smart [insulated glass](#).

### **Examples of PDLC glass used:**

In the office:Applied to the glass enclosure of a conference room. When the glass is transparent, one can see into or out of the room, and when it is non-transparent it can be used as a projection screen.

Energy-saving function of glass curtain wall:Indoor decoration of up-scale residence:lighting cover glass curtain,sunshine house, living room and bathroom compartment. The glass is in a cloudy state when out of use, which protects privacy, and when it turns to transparent, one may fully bathed in sunshine.

Product display and commercial advertisement:Glass display window, protect the products when it is non-transparent, and may used for projection to introduce products; when it is transparent, it may be used for store advertising.

Use for special occasions:The glass door of a rest room is non-transparent when out of use, and immediately turns to a cloudy state when the door is closed.

Glass floor and stairs on the second floor appear cloudy when walked upon, otherwise they are transparent.Privacy uses in hospitals, e.g., windows of infants' room and intensive care units, replacing curtains, to reduce dust and noise.

Applied to dust-free rooms and cleaning rooms, smart films may be used to switch between transparent and non-transparent, and can reduce inconvenience for customers having to wear dust-free clothes passing in and out of the room.

### **Switchable smart privacy glass for glass window and wall:**



**Switchable smart pdlc film glass used for meeting room**



**Strong packing with export standard wooden case:**

