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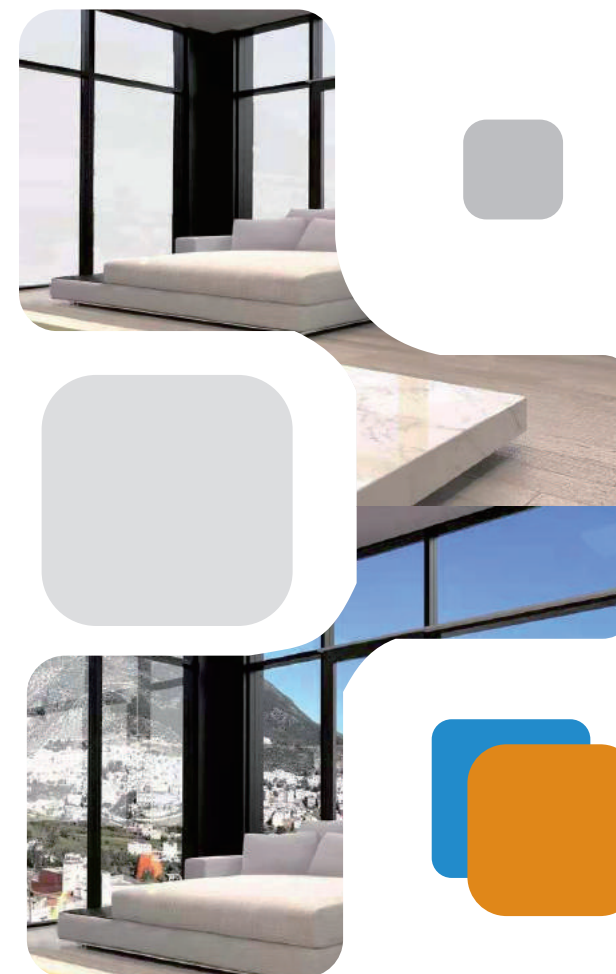
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SMART GLASS



SMART GLASS PDLC FILM MANUFACTURER

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01 | ABOUT OUR COMPANY

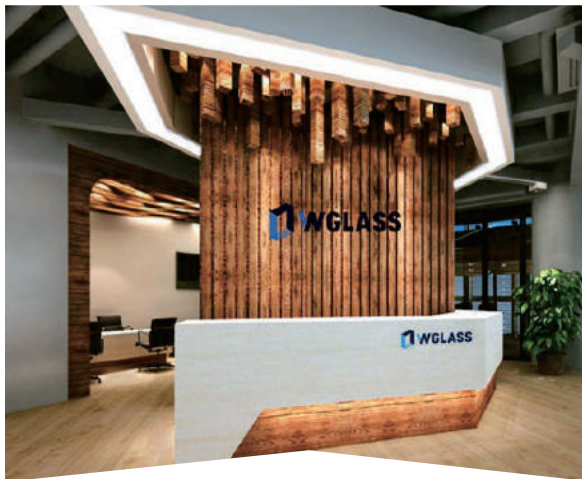
Welcome to Wglass, a leading manufacturer and supplier of innovative switchable privacy smart glass and smart PDLC film products. We offer extensive options for switchable smart privacy glass and smart film to make our environment comfortable, secure, private, and energy-efficient all over the world.

Our technology experts carefully curate smart glass and film technology solutions and embed them into raw materials to give you products that bridge the gap between your everyday life and applied science. We are redefining window treatments to meet the innovative demands of the present and future.

All our products are priced as best as possible for the satisfaction of our clients. We aim to deliver top quality products at the best prices, providing full value for money and guaranteeing 100% customer satisfaction.

» OUR MISSION

Our company is a China owned and operated business with a customer supply list throughout worldwide. We originally established our company to provide business and individuals a cost effective option for quality smart glass, PDLC Film , power transfromer with remote controller and all necessary parts from one supply source. Although Shenzhen China based, we provide a complete service offering switchable smart glass pdlc film for practically any application and we supply to every country in the world. Our company is focused on providing you with quality products without limitations and to date we have some impressive commercial project achievements..

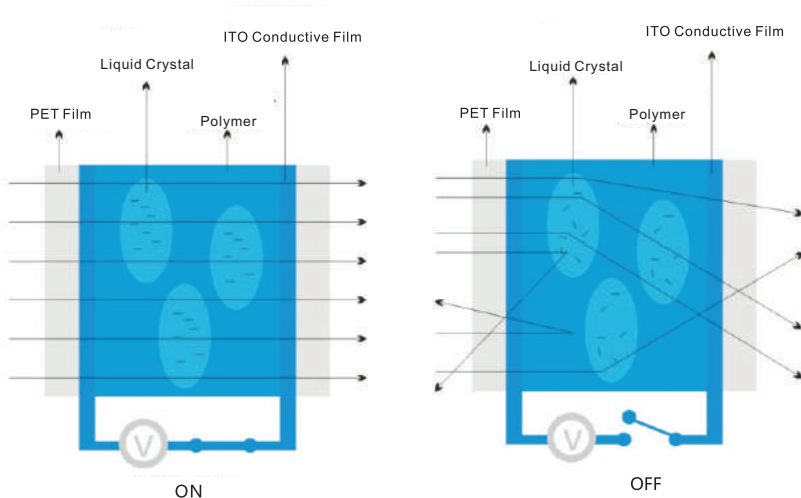


» OUR EXPERTISE

Our quality assurance processes ensure you can rely on the quality and accuracy of our product! Our research and development team are constantly seeking new products to complement and improve our ranges. We have partnership agreements in place so can manufacture standard and custom items in smart glass, adhesive smart film. Contact us to find out how smart Glass Solutions can make your glass smarter and create a modern intelligent space.

02 | HOW SMART GLASS WORKS

In short, PDLC is a liquid crystal flat capacitor, which relies on the application or withdrawal of an electric field to orient or disord arrange polar liquid crystal molecules, so as to achieve a transparent or shielding effect. The effect is shown in the figure below.

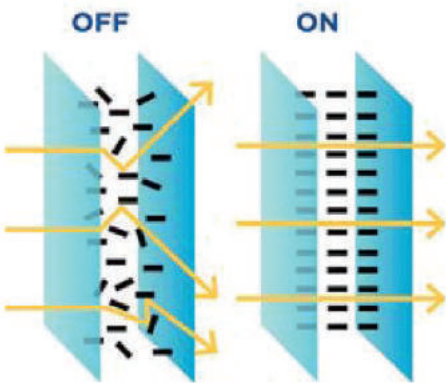
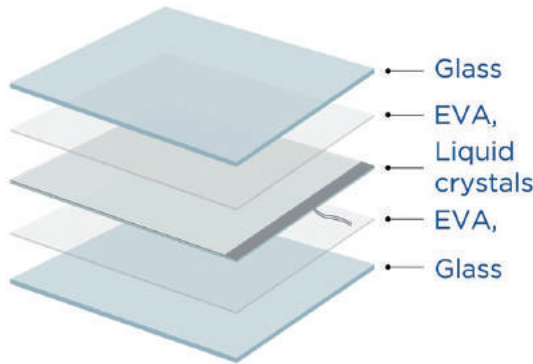


(PDLC Schematic Diagram)

» SMART GLASS PRODUCT ADVANTAGE

Wglass smart glass is made of high-transparency film developed for smart glass and high-quality automotive-grade float glass, which is processed by advanced laminated glass production technology. It is advanced in technology and excellent in performance. The product has passed various stringent tests, ensuring the high quality of the product. When the power is turned on, the total light transmission rate is as high as 83%, the haze is less than 3%, when the power is off, the haze is as high as 96%, and the power consumption is less than 4w / square meter. The photoelectric performance is excellent and reaches the international advanced level.

» STRUCTURAL DIAGRAM



» SMART GLASS PARAMETERS

Parameter set		Mode	Parameter
Optical parameter	180 ° visible light transmittance	(ON)	83%
		(OFF)	>60%
	Parallel transmittance	(ON)	75%
		(OFF)	<2%
	Atomization rate	(ON)	<4%
Electrical parameters	Maximum perspective	(OFF)	96%
	Operating Voltage	(ON)	160°
	Response Time	(OFF-ON)	AC48V ~ 65V/50Hz
Power consumption		(ON-OFF)	<10ms
			<5W/m²

Parameter set		Project	Parameter
Size	Thickness	Glass	Glass thickness×2+2mm
	Max Size	Film	50m x 2m
	Operating temperature	—	-20 C~90 C
	Storage temperature	—	-30℃~70℃
Working frequency		—	30Hz~400Hz
Switch parameters		—	> 2 Millions

03 | PRODUCT INSTRUCTION

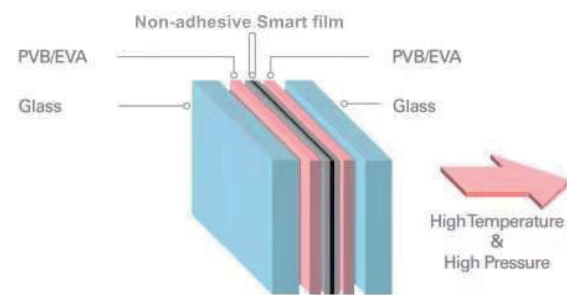
WE HAVE 3 KIND OF MAIN PRODUCT

SELF-ADHESIVE SMART FILM



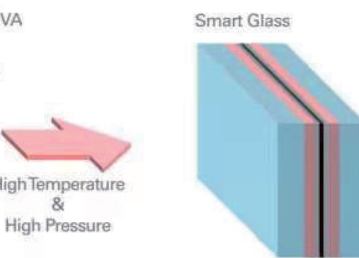
Self-adhesive smart pdlc film, it has a silicon adhesive glue layer on one side of the smart film, easily to install on existing glass surface. No Need To Replace Current Glass Installations, apply to traditional glass installations and avoid a full glass panel replacement.

NON-ADHRSIVE SMART FILM



Non-adhesive smart pdlc film without any adhesive layer, it requires lamination between two glass panels as a laminated smart glass(Glass-EVA-smart film-EVA-Glass) and it needs a glass lamination oven.

LAMINATED SMART GLASS



Laminated smart glass, this is a finished product of the non-adhesive smart film. You can install it to your project directly.



» SMART FILM WE OFFER TWO KIND OF OPTIONS

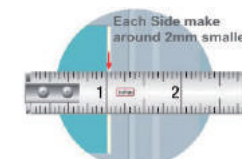
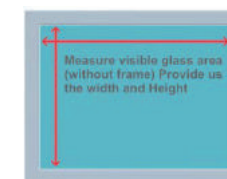
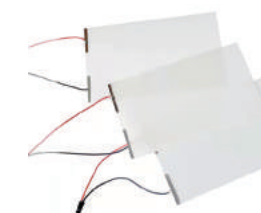
SMART FILM IN ROLL

Smart film in roll - without busbar and you need to cut the film and connect the busbar by yourselves, normally our big customers will buy this kind smart film in roll with a cheaper price and easier to cut any size as their requirement anytime. But it require you have the skill to cut and make busbar, you can learn this from us when you need to buy smart film in large quantity every month. This is a semi-finished product.



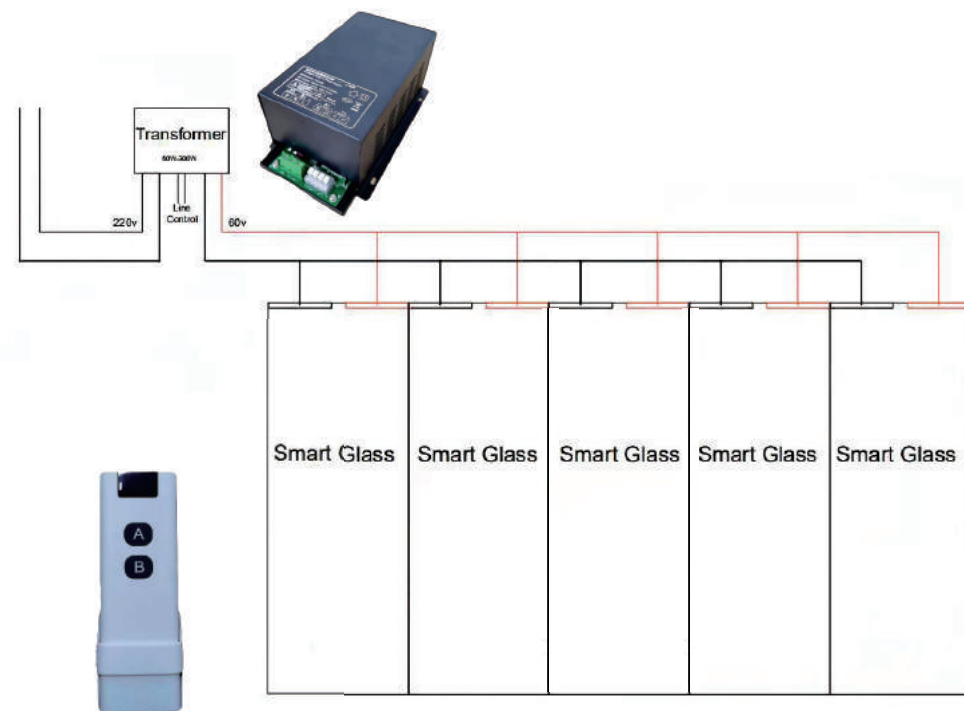
SMART FILM IN SHEET

Smart film in sheet - pre cutted as your given measurement size and pre-connected the busbar and electric wires, this kind smart film you can use and be able to test with power transformer directly. Normally we recommend new beginner to use this kind of finished product smart film;



» WIRE CONNECTION DIAGRAM

FOR SMART FILM SINGLE WIDTH SIDE BUSBAR



REMOTE CONTROLLER

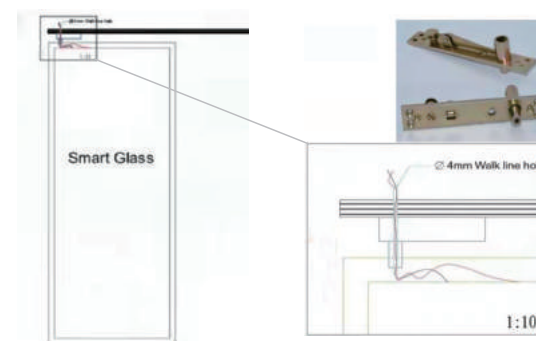
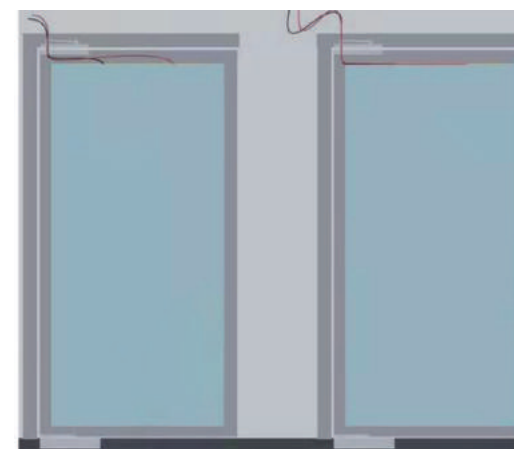
Smart film consumes around 5W per square meter, but when we calculate for transformer we will use around 8W per square meter and our transformer standard is: 30W 50W 100W 200W 300W 500W 1000W

In this case you can simply calculate and choose what transformer do you need. For example:

1. You have 2pcs glass doors, each door is 1*2M (2 square meter), then they are $2\text{pcs} \times 2\text{sqm} \times 8\text{W} = 32\text{W}$, then you can choose 50W transformer or above;
2. You have 6pcs glass doors, each door is 2*2M (4 square meter), then they are $6\text{pcs} \times 4\text{sqm} \times 8\text{W} = 192\text{W}$, then you can choose 200W transformer or above;

Therefore, you can simply decide one transformer to control one piece smart film or more pieces.

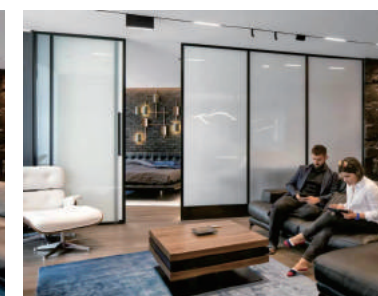
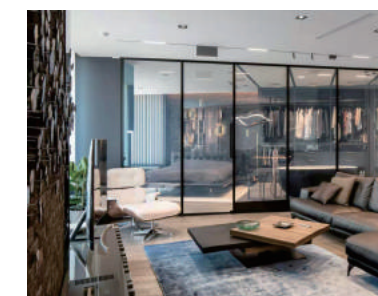
» CASEMENT DOOR SMART GLAS WIRE CONNECTION DIAGRAM



ON



OFF



04 | PRODUCT FEATURES

1. Privacy and Safety:

The main function of smart glass is the privacy and safety, the transparent and opaque state of the glass can be controlled at any time, and the response speed is fast, can exchange states in an instant.

2. Sound insulation:

The laminated smart film and eva film between the smart glass can partially block noise. If processed into a hollow smart glass, the effect is better.

3. High intelligence:

It can be combined with intelligent home system and intelligent building system to achieve unified intelligent management and improve efficiency.

4. Stable performance and long service life:

It can be used more than 2 million times, and more than 80,000 hours in the open state, life time is 15 years.

5. Energy saving and environmental protection:

Block more than 99% of the uv and more than 98% of the infrared, insulation performance reaches level 2 or above.

6. Power saving:

The film is transparent when power on, but the light is still very good when power off, not only comfortable, but also save energy consumption.

7. Safety:

It has the advantages of safety glass, good impact resistance, eva film and laminated smart film firmly adheres the glass, so that the smart glass can prevent debris from hurting people after being broken by impact.

8. Diversified control methods:

Manual switch, remote control, trigger control, voice control, APP control, timing control, remote network control, etc., can be customized according to customer needs.

9. Projection function:

The smart glass can be used as a projection screen in power-off state. In a light-friendly environment, use a high-lumen projector, the projection imaging is very clear.



ON



OFF



ON



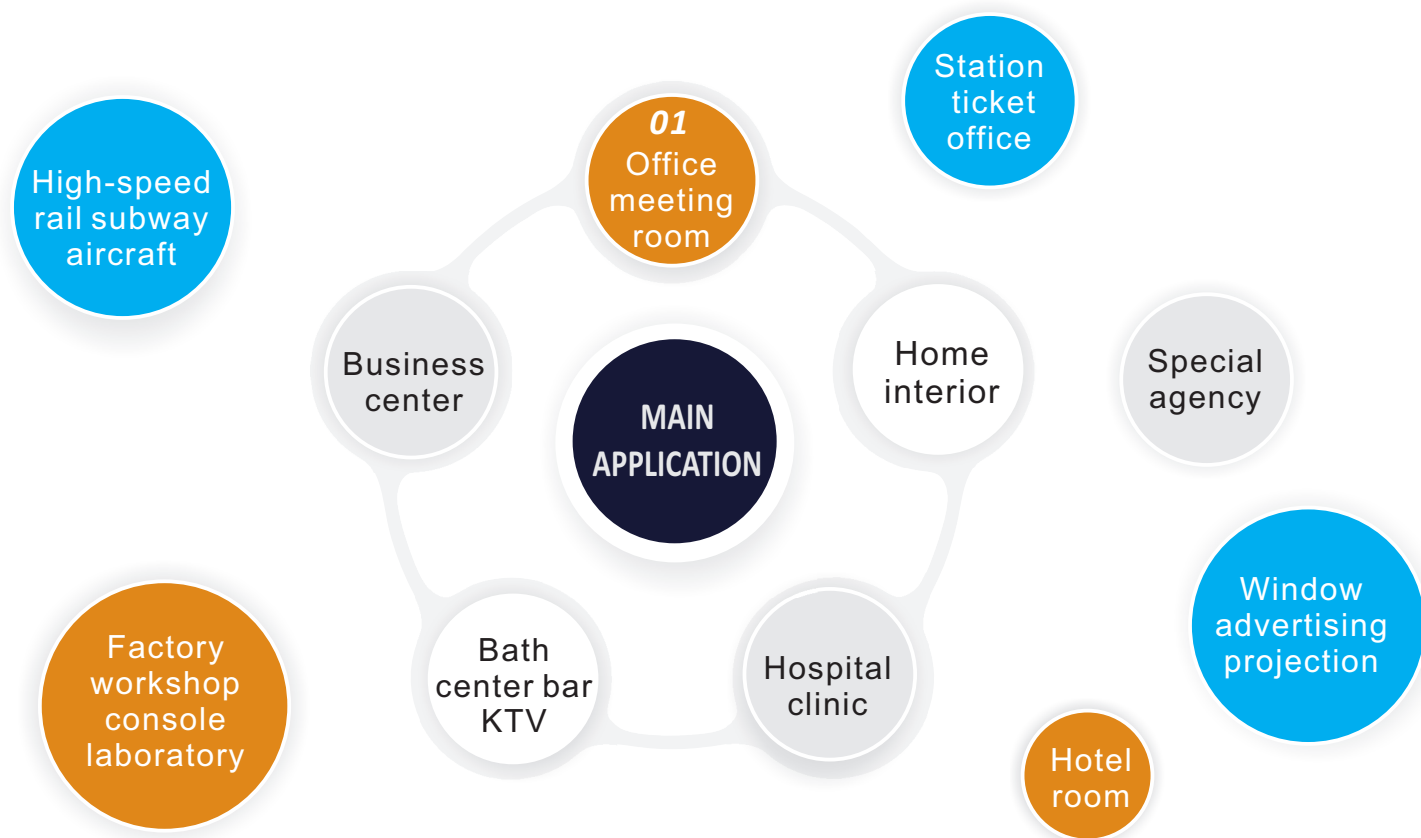
OFF

Smart glass is different from ordinary glass. It is a special architectural decorative glass, its transparency can be adjusted, also known as electrochromic smart glass and switchable smart glass. It is a revolution about glass light transmittance. It is an inevitable product of the development of glass processing in the direction of high technology, electronics and intelligence.

The dimming principle of smart glass is: in the natural state, the arrangement of liquid crystal molecules inside it is irregular, the refractive index of the liquid crystal is lower than that of the polymer outside, and the incident light is scattered in the polymer, and it is milky white, that is, opaque. After the current is applied, the liquid droplets in the dispersed liquid crystal polymer are rearranged, and the liquid crystal changes from disorder to 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 pass through completely and form a transparent state.

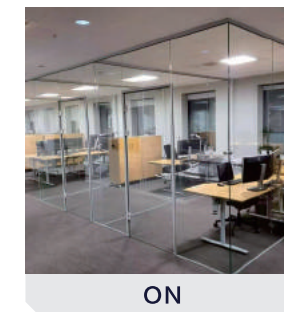
Smart glass can change the state of the glass in an instant according to different occasions, moods, functions, etc., and truly achieve the effect of "light moves with me". Its magic is that the state can be controlled by the user with the touch of a switch or remote control, you can create the privacy space and effectively protect the privacy of your personal space.

05 | MAIN APPLICATION



» OFFICE CONFERENCE ROOM

When the office area is partitioned by a number of walls or frosted glass, it will inevitably result in small slits. If all use transparent glass design then must lack of privacy. With the smart glass, you can easily switch the transparent and opaque by simply pressing a remote controller, making the space open or closed as your will. can be controlled by the user with the touch of a switch or remote control, you can create the privacy space and effectively protect the privacy of your personal space.



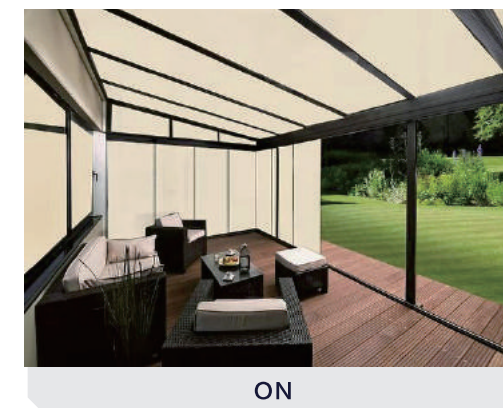
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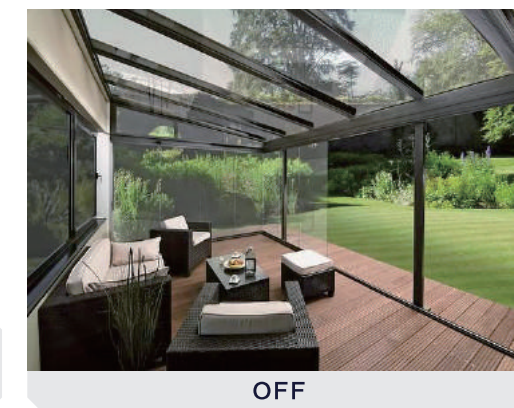
OFF

» THE HOTEL APPLICATION

A variety of convenience design for guest is necessary for a warm place to rest, a place that strives to give people a sense of "home away from home". And Smart Glass is novelty, beautiful, practical to win warm praise from star hotels. Its "powered transparent, power-off matte" feature allows the space to be freely retracted, which not only enlarges the narrow space but also protects privacy when it is necessary; it makes a lot of fun and convenience to the guest.



ON



OFF

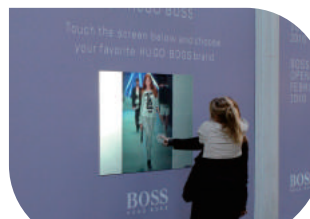
» PROJECTION TOUCH

When the smart glass power is off, control the ambient light and project it through a projector can make the smart glass display clear image, and combined with the infrared touch frame to form a large-sized “tablet computer”(can be made up to 130 inches) Created a new field of projection. Suitable for meeting, science and education configuration.

180 degree viewing,
no image distortion.

No glare from
traditional lighting.

Saves a lot of useful
space instead of
expensive LED displays.



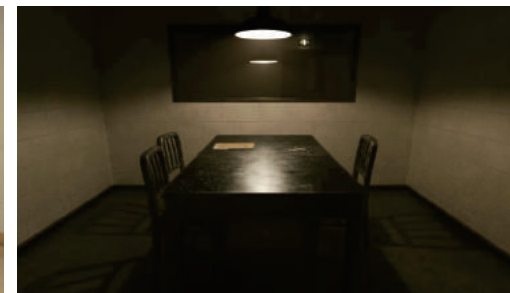
» SUBWAY AIRCRAFT



The intelligent smart glass is transparent and clear, which resolves the rigid lines of the space shape. It is noble, elegant, fresh, natural, soft, beautiful, fully embodies the charm of its application. At present, some special high-speed rail lines in China (such as Hada High-speed Rail) are using smart dimming glass.

» SPECIAL INSTITUTION

Intelligent smart glass has efficient openness and privacy, can be used in prison visit rooms, Interrogation rooms, Isolation rooms etc.



» SERVICE COUNTER

Smart glass creates a new field of modern bank openness and privacy functionality, its high-privacy functions make the working environment safer. The bulletproof smart glass partition for bank counter, can easily switch from transparent state for service time and the atomization state for off time.



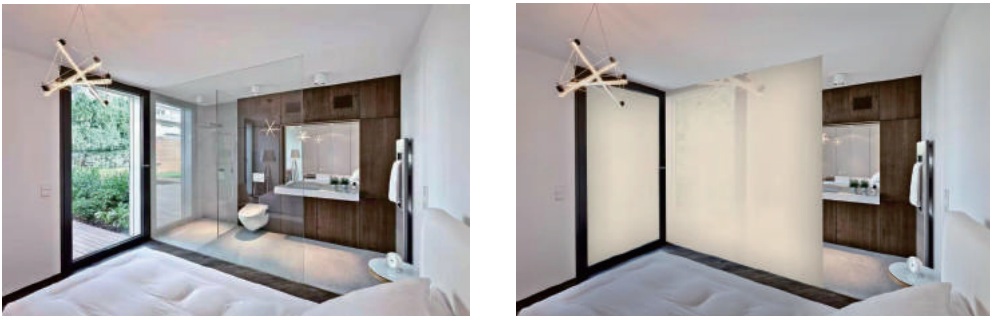
» THE STATION TICKET OFFICE APPLICATIONS

In some places such as public area and stations, you can also customize some privacy spaces. For example: ticket window,nursing room, emergency room, etc



» HOWER ROOM.WASHROOM

The transparent and opaque shower room always gives a sense of mystery. If you combine these two mysteries into one, the mystery will multiply. Intelligent dimming glass can instantly control the opening and privacy of the space. It can be used in shower rooms and toilets without occupying too many places, but it can add a mysterious taste to our life.



» ELEVATOR APPLICATION

Special perspective lift



Advantages Elevator glass changes transparency can make people feel safer

» PRODUCT ACESSORIES

wglass smart glass transformer power supply

The main technical parameters			
Input AC	220V	Rated power	<5W/m²
Output AC	60V	Scope of application	Limited to smart glass smart glass film
Frequency	50-60HZ	Features	Has moisture-proof protection, short circuit protection function

Control method Switch control / Remote control / Mobile phone App control

06 | PRODUCT COMPARISON

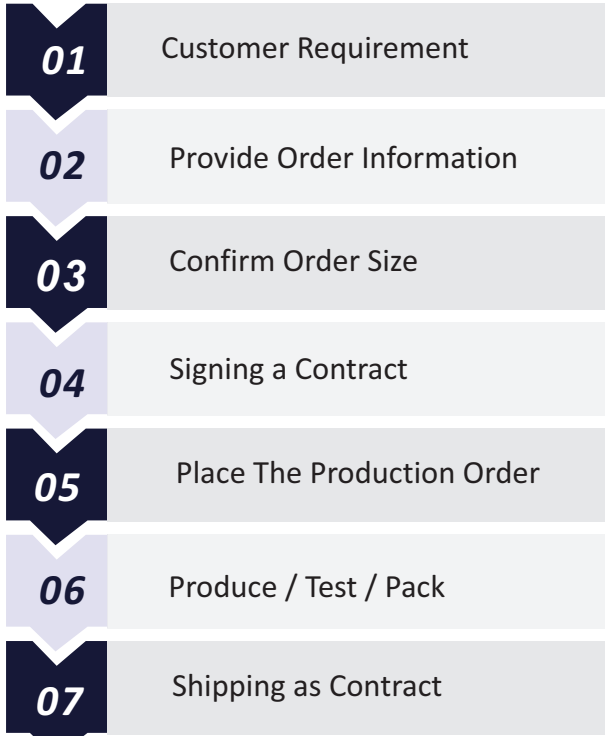
Smart glass	Blinds	Roller blind
Advantage		
Clear and bright, clean and simple, durable, soundproof, looming, and can be individually designed	Low Price	—
Low Price		
Cost-effective	Not clear and bright, single control, difficult to clean, easy to wear down	Single regulation, clean and complex, easy to wear out



» BENEFITS OF GLASS?



» COOPERATION PROCESS



07 | PRODUCT SERVICE

1 .Product warranty:

Beginning the dimming glass product arrives at the customer's location, the quality problem will occur under normal use within two years. Our company will provide after-sales service free of charge and replace it if necessary.

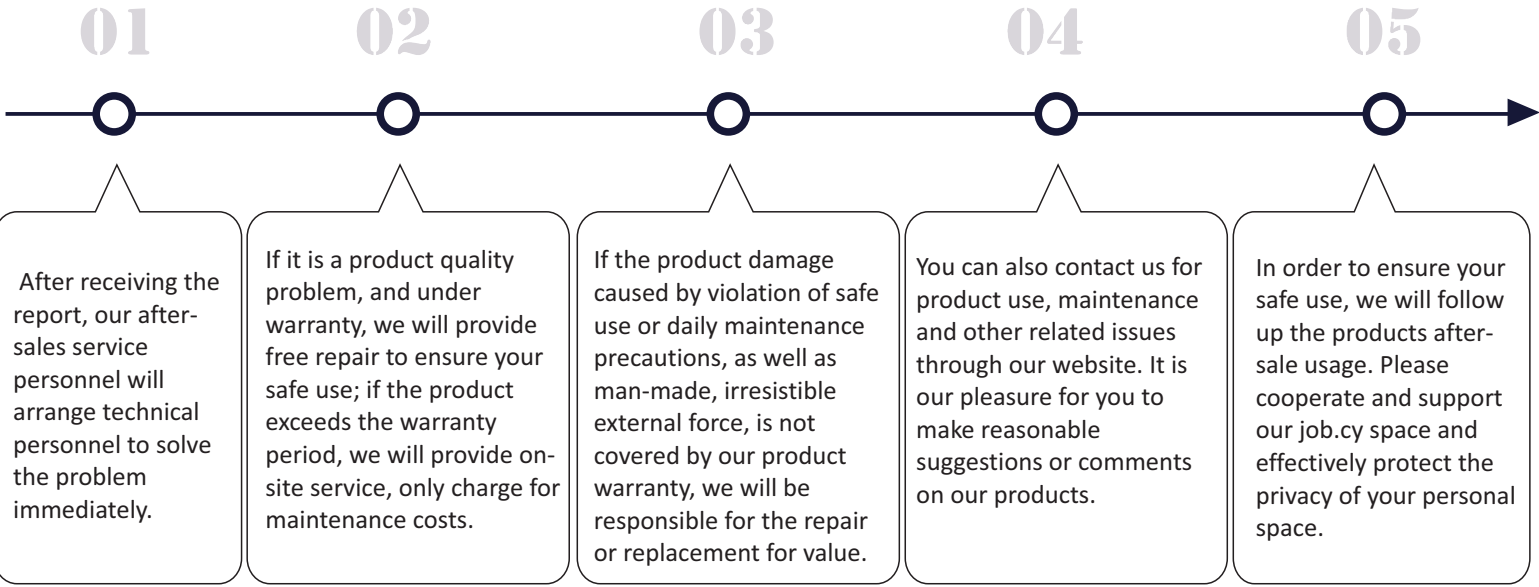
2.quality assurance services

The quality of each dimming glass produced by Wglass. during the warranty period and under normal use and maintenance. If the product is damaged within the scope of warranty, Yuguang New Materials promises to reply within 2 working days.

3.Under the agreed implementation plan, solve the problem for the customer within 14 working days.
After two years of use of the dimming glass, it is still available to provide customers for accessories and repair services.



» AFTER-SALES SERVICE



OMNI-DIRECTIONAL AFTER-SALE TECHNIACAL SUPPORT

08 | WGLASS FACTORY



09 | PREVIOUS EXCELLENT PROJECT CASES



KENTISH TOWN SPORTS CENTRE, ENGLAND



THE GLOBE OF SCIENCE & INNOVATION, CERN



THE EAST WINTERGARDEN, LONDON, ENGLAND



THE MOORHOUSE, LONDON, ENGLAND



HOWARD JOHNSON TIANXI PLAZA CHONGQING



HUE HOTELS & RESORTS