

## SPECIFICATION

### S-LCG Specification

<u>Item</u>	<u>Smart Glass</u>
Parallel Light Transmittance	75% On 5% Off
Haze	2% On 80% Off
Power Source	AC50V 50/60 Hz
Current	100mA/m <sup>2</sup>
Power Consumption	5W/m <sup>2</sup>
Response Time	Off-On(1/1000 sec) On-Off (1/100 sec)
Glass Thickness	1 1.5mm, 13.5mm in float combination 13mm, 15mm in tempered combination
Maximum Size	3500mm x 1800mm
Operating Temperature	-10 to 70 degree C
UV Blockage	98%
Switching Cycle	3 million times
On Cycle	50 thousand hrs
Visual Angle	130 degree

### S-LCF Specification

<u>Item</u>	<u>Smart Film</u>
Parallel Light Transmittance	80% On 10% Off
Haze	8% On 74% Off
Power Source	AC50V 50/60 Hz
Current	100mA/m <sup>2</sup>
Power Consumption	5W/m <sup>2</sup>
Response Time	Off-On (1/1000 sec) On-Off (1/100 sec)
Film Thickness	0.4mm
Maximum Size	3500mm x 1500mm
Operating Temperature	-10 to 70 degree C
UV Blockage	98%
Switching Cycle	3 million times
On Cycle	50 thousand hrs
Visual Angle	140 degree

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**CYBER GLASSTRADE PTE LTD**  
SMART GLASS / FILM



### **SWITCHABLE LIGHT CONTROL GLASS**

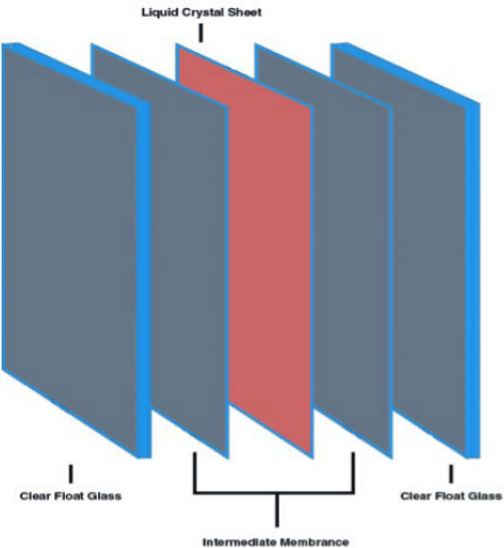
**S-LCG** is a smart glass that switches from transparent to opaque and vice versa instantaneously.

It is operated by electrical signals and its dual functions provides a wide array of applications that can only be limited by one's own imagination.

## **MULTI-LAYERED GLASS SANDWICH HARNESSING THE CHARACTERISTIC OF A LIQUID CRYSTAL SHEET**

**S-LCG** is manufactured by laminating 2 pcs of glass with a liquid crystal sheet. Harnessing the characteristic of the molecules in liquid crystal sheet that are randomly aligned when it receives no electrical signal thereby blocking the light path but aligned when an electrical signal is received to allow light to pass through.

It provides privacy in a neat way removing the need for messy curtains or blinds. The smart glass also provides thermal, U-V protection and sound insulation benefits as well as safety.



## **MULTI-LAYERED FILM SANDWICH HARNESSING THE CHARACTERISTIC OF A LIQUID CRYSTAL SHEET**

**S-LCF** is a smart film that transform an existing glass from transparent to opaque for instant privacy and security. It is manufactured by encapsulating liquid crystal molecules in a polymer with self adhesive layer ready to be applied to a clean and carefully prepared glass surface.

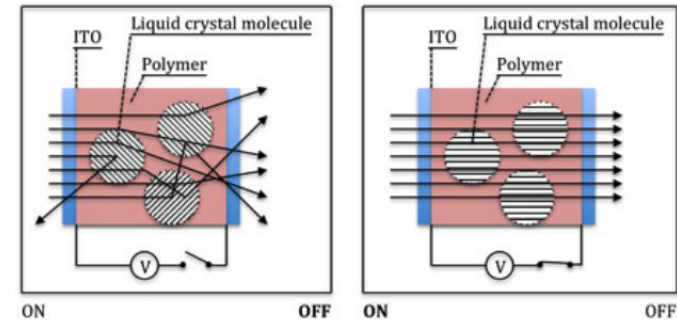
It provides an alternative value-add in a functional way to an existing application without the hassle of messy and costly glass removal. But certainly not intended to be an ideal and cost effective solution for new installations.



## **FEATURES**

### **CHARACTERISTIC OF LIQUID CRYSTAL**

**S-LCG** works on the characteristic of liquid crystal whose molecules are randomly aligned that disperses light making it opaque. And when voltage is applied, however, these same molecules aligned themselves to permit parallel light to pass through making it transparent.



### **FAST RESPONSE TIME**

From opaque to clear in approx. 1/1000 sec or 100 millisecond and from clear to opaque in approx. 1/100 sec or 10 millisecond.

### **LOW POWER CONSUMPTION**

Only 5 W/m<sup>2</sup>. Literally very low running cost compared to a single 40W incandescent bulb used in typical household lighting.

### **SAFETY**

**S-LCG** being a laminated glass will prevent glass fragment to scatter about causing injury in the event of breakage.

### **WIDE OPERATIONAL MODE**

As **S-LCG** operates with electrical signals, many different forms of activation can be utilised to trigger it as long as it can be converted to electrical signal such as remote, sounds, sensors etc.

### **MANY APPLICATIONS**

Applications are far and many. Ranging from nursery rooms in hospital, meeting rooms in office, project screen display in retail, shower rooms in homes to rail in transportations. It's usage can only be limited by one's own imagination.