

# FILMBASE

MAKE GLASS DO MORE

# Dye Liquid Crystal Film SPECIFICATION



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# ABOUT DLC FILM

Filmbase DLCF ( Dye Liquid crystal Film) is a new glass material that controls luminous flux. DLCF ( Dye Liquid crystal Film) based products allow glass to dim and tint from opaque to transparent for user controlled shading and glare mitigation.

DLCF ( Dye Liquid crystal Film) independent R&D with 11 patents and precision manufacturing. Offers best architectural, automotive, and aeronautical responses to requirements for light control, thermal control, and energy conservation.

# FEATURES



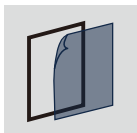
### INTELLIGENT CONTROL

Equipped with an intelligent control system that includes elecontrol, an APP, remote control, AI integration, and customization.



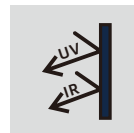
### AI LIGHT CONTROL

Dynamic Shading, Fast Reaction.



### INTELLIGENT CONTROL

Can be adhered onto existing glass or laminated into new glass structures.



### DENY ACCESS TO LIGHT

Blocks UV and IR, saving energy.



### 0.1S FAST SWITCHING

Switches between frosted and transparent states, providing a privacy function.



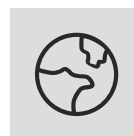
### DISPLAY SCREEN

Super HD rear projection screen.



### EXTRA LARGE CUSTOMIZED SIZE

Available in different widths from 1m to 2.2m, with a height capacity of up to 50m.



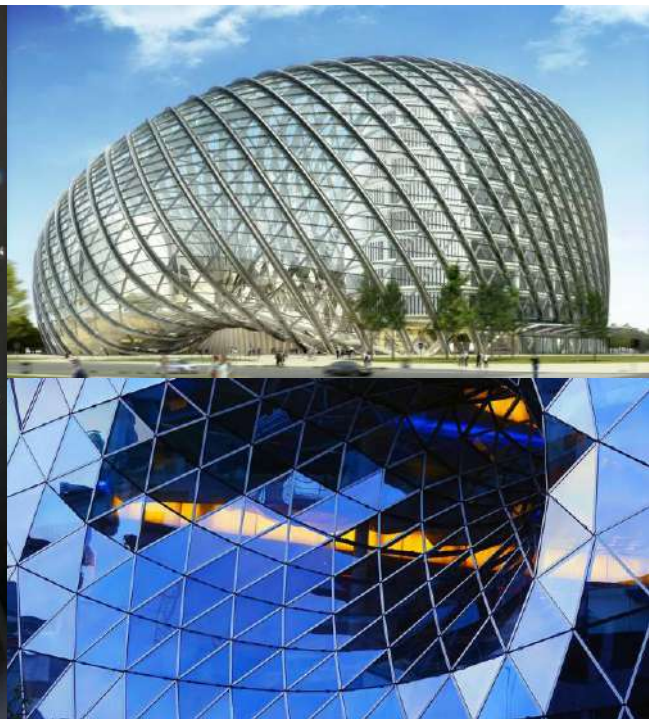
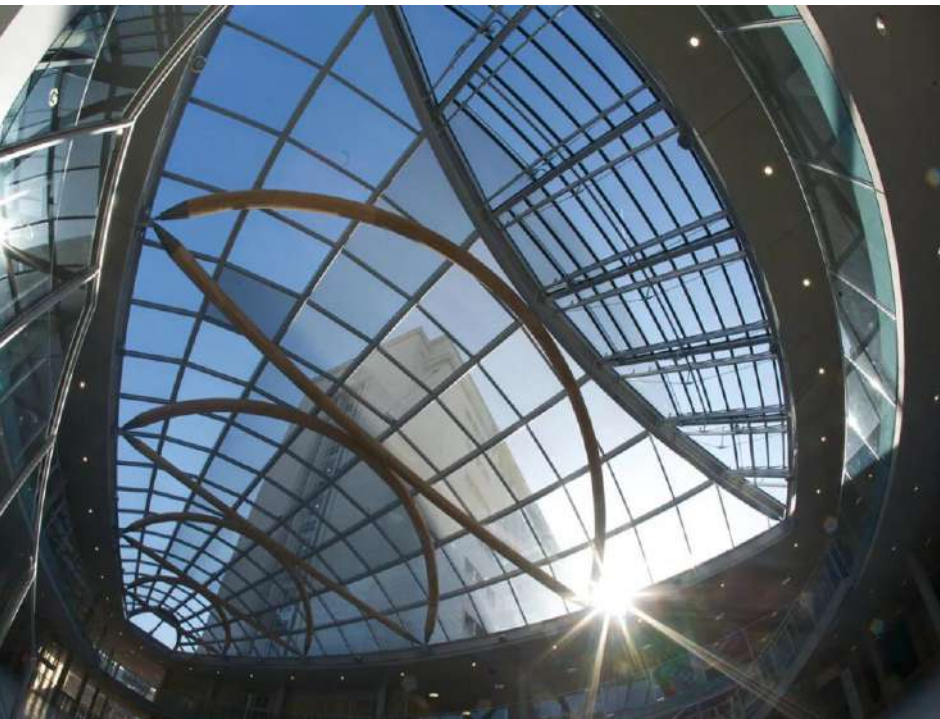
### WORLD LEADER

Pioneering DLC Film technology available globally.

# APPLICATIONS

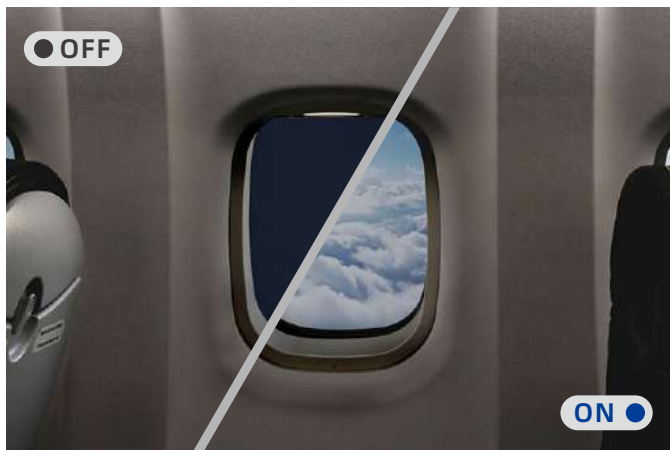
## Architecture

Ideal for applications requiring light control, energy conservation, UV and IR blocking, safety, and privacy.



## Aviation

Offers precise control over visible light, solar radiation, temperature, and UV/IR blocking.



## Automotive

Provides excellent light control, temperature management, dynamic shading, and UV/IR blocking, while enhancing safety and privacy.



# SUITABLE FOR ARCHITECTURAL GLASS

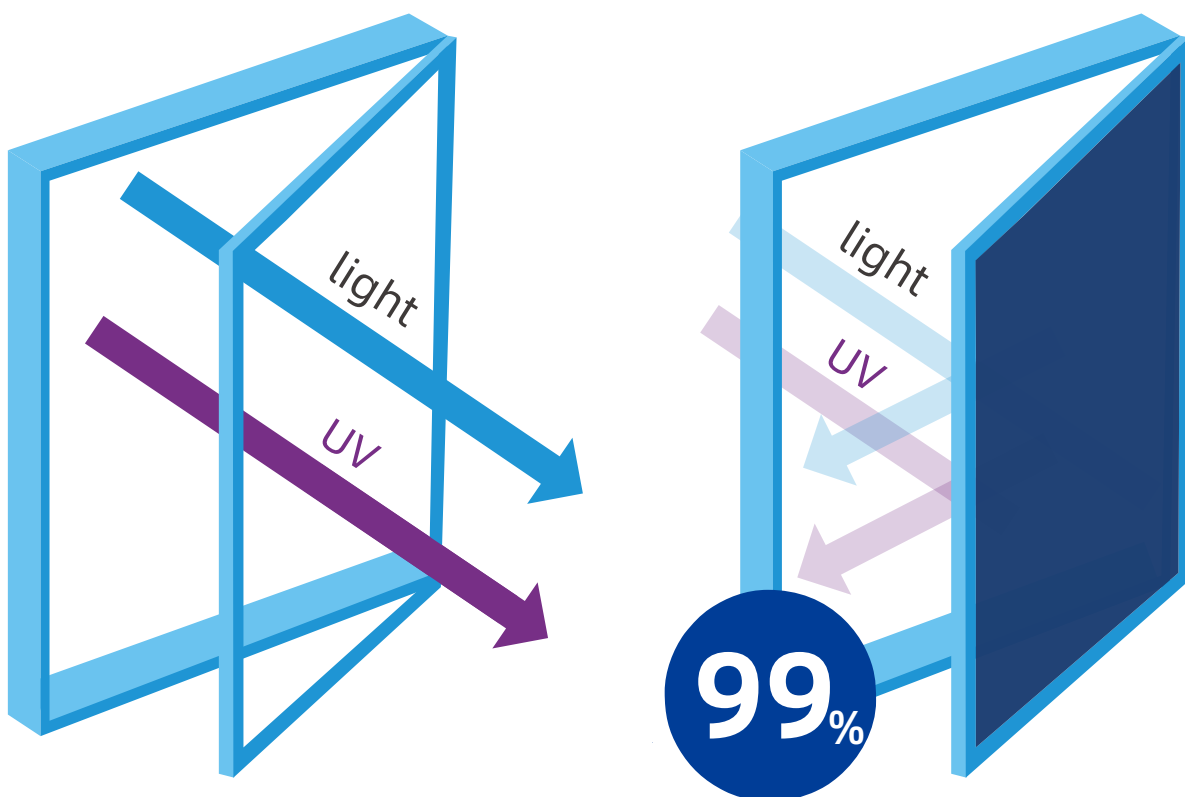
DLCF can be patterned with custom shapes and designs enabling the segmentation of glass for precise Light control. The only DLC technology available in architectural glass widths and compatible with curved and slanted glass.

DLCF support architectural grade DLC smart glass. Ideal for blocking light in exterior windows, large scale glass and skylights, it offers a durable, easily maintained, sleek and contemporary shading solution.



## BLOCKING UP TO 99% OF VISIBLE LIGHT

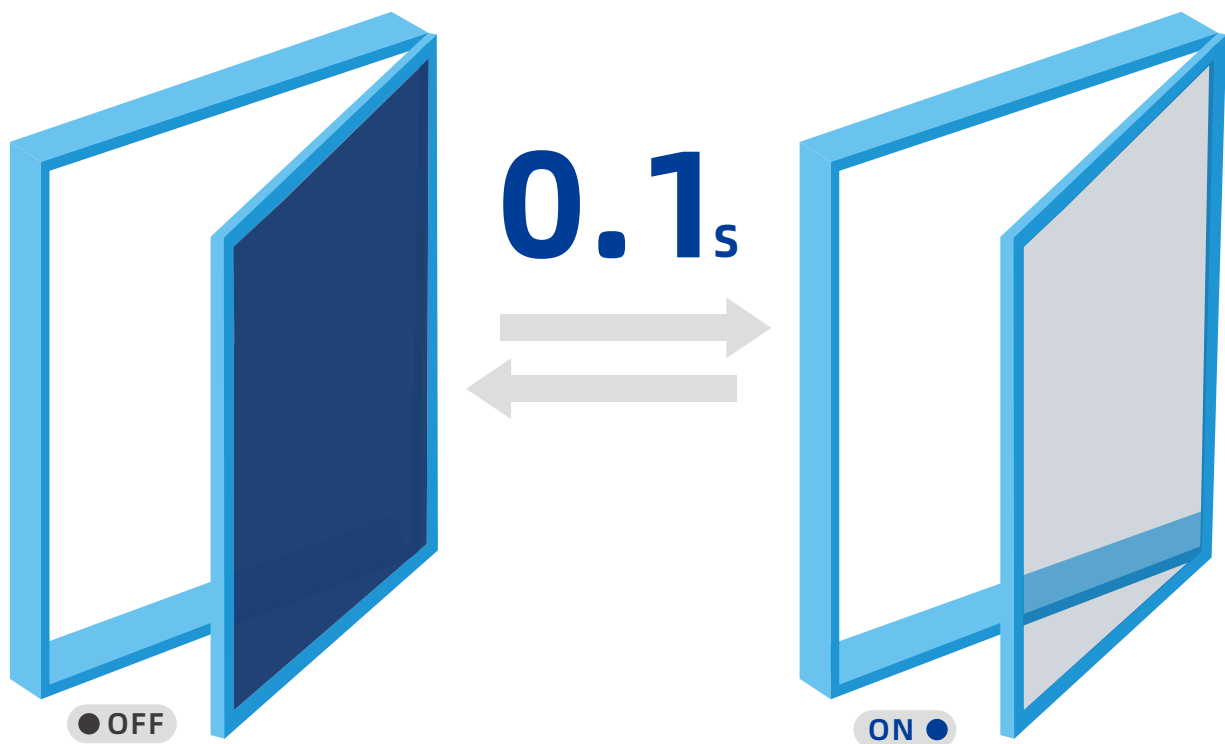
- custom levels of shade without compromising views.
- optimization of natural light for increased well-being and lower electric costs.
- modern and minimalist architectural glass designs.



## SWITCHING TIME AS FAST AS 0.1 SECOND

Regardless of glass size, DLCF maintain a switching time as fast as 0.1 second, but can be customized to dim at a slower rate. DLC offers instant glare reduction and user controlled dimmer for custom levels of shading while retaining the benefits of views and connection to the outside environment.

DLC provides a cutting edge shading solution that transforms glass into an active material and an integral part of modern design without limitations of traditional or motorized blinds and curtains.



# PRODUCT PARAMETERS

## Film Optical Performance

Total Transmittance(OFF)	<1%
Total Transmittance(ON)	36%-58%
Haze(ON)	3.5%
Color Grade	l=59
	a=1
	b=-1.5

## Film Technical Properties

Switching Time	0.1s	
Operating Temperature	-20~80°C	
Film Thickness	340μ	
Maximum Width	Non adhesive	<2200mm
	Adhesive	1840mm
Cut-to-Fit	Custom Sizes,Shapes, Busbar Position;Holes and Notches	
Interlayer Compatibility	PVB,EVA,TPU	
Glass Types	Annealed, Tempered, Clear, Low Iron/Ultra Clear, IG Units, Other	
Patterning Available	Yes	
Storage Conditions	-20°C to+60°C,<60%Humidity	

## Electrical Performance

Operative Controllers	Mini, Flex, Multiplex,Custom
Operating Modes	Fade,ON/OFF,Dimmer
Operating Voltage	36-65VAC
Operating Frequency	22,25,30,50,60Hz
Response Time from dark to light (s)	<1
Response Time from light to dark(s)	<1
Visible Light Transmittance(light)	50~68
Visible Light Transmittance(dark)	1~5
UV Rejection(light)	99
UV Rejection(dark)	99.9
Dimming Uniformity	Overall discoloration
Temperature(°C)	-35~85
Energy Consumption( w/m2)	2