

PDLC LCG® FOR FACADES

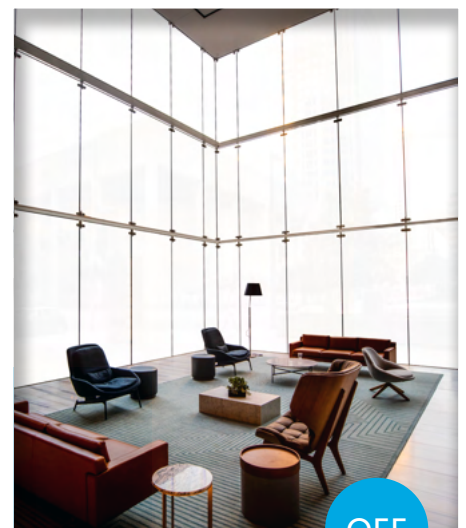
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Gauzy's PDLC LCG® (light control glass) technologies for facades adds a specialized feature to the exterior of buildings, providing on-demand privacy and enhanced thermal control.

Gauzy's PDLC technologies can be customized to suit the needs of each project, compatible with architectural and oversized glass, special shapes and stack configurations according to specification.

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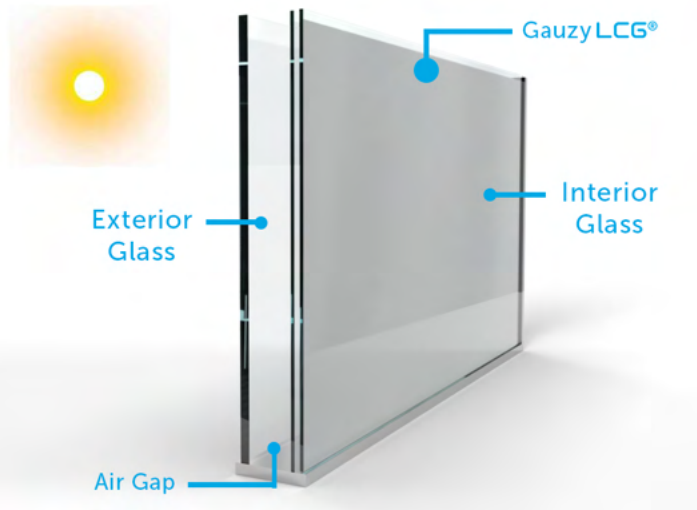


Exterior Grade PDLC

Gauzy's offers two distinct lines of exterior grade PDLC LCG® for custom facades: Extended Outdoor Performance (EOP-LCG®) and Solar Performance (SP-LCG®), both optimized to provide benefits such as:

- opaque for light-filled privacy and glare control or transparent for full views and connection to outside environments
- maximizing natural light and reduce need for artificial lighting
- easy to clean and long lasting for low maintenance costs
- operation in -20°C (-68°F) to 90+°C (194°F) & a range of climate conditions
- patented solar IR reflection technology in SP-LCG® PDLC for cooler interiors and reduced HVAC costs
- UV blocking protects occupants and interiors from harmful rays

Full glass architectural exteriors limit occupant privacy and aesthetic shading options. Utilizing PDLC LCG® in building facades addresses these concerns while also supporting enhanced functionality and sustainability.



Facades

PDLC offers a custom and unique alternative to traditional shading systems in building facades to provide on-demand privacy and glare mitigation while also supporting:

- custom stack configuration specifications
- increased savings on low-E glass with SP-LCG®
- improved acoustic performance with laminated glass
- maximized natural light and reduced need for artificial lighting
- architectural and oversized glass with custom shapes & sizes and multi-dimensional curves
- easy control with integration into commercial grade smart building automation systems
- transparent digital displays and extended space for messaging when paired with projection



A custom, specialized solution for facades & exterior glazing in commercial and residential buildings.

Why Choose Gauzy?

- compatible with various surfaces in stack configuration
- dedicated technical support to define custom stack configuration during specification
- working with various float glass companies for custom solutions
- fulfilled by a global network of trained and certified partners
- industry leading low haze for ultra high transparency
- patented technologies utilized in full product ecosystem protecting glass from electrical surges
- CE, UL, IEC 62368 certified & made in ISO:9001 facilities
- easy integration with commercial scale automation systems for seamless control



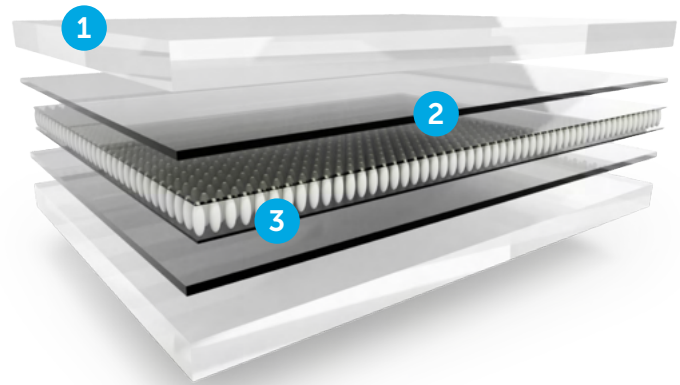
EOP-LCG® Technology

PDLC Smart Glass

Extended Outdoor Performance® (EOP-LCG®) is an outdoor grade product suitable for exterior use maintaining switching in temperatures of -20°C to +90°C.

This product is ideal for operating in extreme conditions, maintaining durability when exposed to high humidity, UV, IR and a wide range of temperatures. This should be chosen when solar performance is not a requirement.

EOP-LCG® opens new possibilities for previously constrained PDLC uses. In addition to operating in a wide range of fluctuating temperatures typical for outdoor conditions, this can also be used in indoor applications such as saunas and consumer appliances.



Product Colors

- White (Exterior)
- Dark (Exterior)

Add-On Features

- Invisible Patterning

1. Glass
2. Adhesive Interlayer
3. LC Film with PET/ITO

Specifications:

White EOP

Grey EOP

Film Optical Performance				
Attribute	OFF	ON ₁	OFF	ON ₁
Parallel Light Transmittance	3.3%	75%	2.2%	45%
(VLT (Total Transmittance	64%	80%	40%	47%
Haze (ON) ₂		3.0%	3.5%	
Color Grade	*L	76.06	75.86	
	*a	1.05	-1.01	
	*b	9.46	8.77	
Film Technical Properties				
Switching Time	5ms			
Operating Temperature	-20°C to +90°C			
Power Consumption	1-3W/m2			
Film Thickness ₃	390μ		395μ	
Maximum Width(mm) ₄	1800		1500	
Cut-to-Fit	Custom Sizes, Shapes, Busbar Position; Holes and Notches			
Glass Types	Annealed, Tempered, Clear, Low Iron/Ultra Clear, IG Units, Other			
Patterning Available	Yes			
Interlayer Compatibility	PVB, EVA, TPU			
Storage Conditions	-20°C to +60°C, <50% Humidity			
Grade	Exterior			
Electrical Performance				
Controller Types	DUO Mini & Flex, Multiplex, Custom			
Operating Modes	Fade, ON/OFF, Dimming			
Operating Voltage	70VAC			
Operating Frequency	25,32,50Hz			

¹ Optical Performance measured using square wave signals provided by Gauzy PDLC Controllers

² Haze tested on 'haze-gard i', by BYK. Laminated with PVB. Haze may vary based on interlayer.

³ Film thickness may vary

⁴ Films can be ordered in rolls or cut-to-fit sheets at any length

* Results reported for Indoor at 25°C; HT at 80°C.

Patented Solar Performance (SP-LCG) ®blocks IR, UV, and Visible Light supporting temperature and glare control for cooler and more comfortable spaces. Ideal for projects focusing on sustainable performance, Solar Control PDLC smart glass increases energy efficiency while providing a higher degree of occupant thermal and visual comfort combined with the benefit of instant switching between opaque and transparent.

Key Features:

- Blocks up to 78% of Solar IR range and more than 99% of UV
- Reduces temperature by up to 15°C (59°F) inside a space
- visible light transmission when off maintains a light filled atmosphere while shading and reducing glare 60%
- Premium optical performance with haze as low as 3.3%
- Outdoor grade, supporting architectural glass up to 1.5m wide

Optimized to perform in wide temperature ranges and exterior applications like facades and skylights, this product is compatible with various glass types, coatings, lamination stacks, and IGU systems, replacing traditional high maintenance shading and privacy solutions that compromise glass centric designs.

Specifications:

White SP

Film Optical Performance ₁		
Attribute	OFF	ON ₂
Parallel Light Transmittance	3.2%	73%
VLT (Total Transmittance)	60%	75%
Haze (ON) ₃	25 °C	3.3%
	80 °C	3.9%
Color Grade	L*	75.86
	a*	-1.01
	b*	8.77
Film Technical Properties		
Switching Time	10ms	
Lifecycle	18 Million +	
Film Operating Temperature	-20 °C to +90 °C	
Film Power Consumption	1-3W/m ²	
Film Thickness ₄	335μ	
Maximum Width (mm) ₅	1500	
Cut-to-Fit	Custom Sizes, Shapes, Busbar Position; Holes and Notches	
Glass Types	Annealed, Tempered, Clear, Low Iron/Ultra Clear, IG Units, Other	
Patterning Available	Yes	
Storage Conditions	-20 °C to +60 °C, <50% Humidity	
Grade	Exterior	
Film Solar Performance ₆		
Attribute	Off	On
Visible Light Reflection - Interior	8%	9%
Visible Light Reflection - Exterior	13%	13%
UV Block	99.6%	99.6%
Total Solar Energy Reflection	38%	38%
Total Solar Energy Transmittance	14%	17%
Total Solar Energy Absorption	48%	45%
Shading Coefficient	0.28	0.28
G- Value	0.24	0.24
U- Value W/K*m ²	1.36	1.36
ΔT(°C) ₇	Up to 15 °C	
Energy Saving	For every degree reduced, Gauzy saves approx. 7% on air conditioning costs	
Electrical Performance		
Operative Controllers	DUO Mini & Flex, Multiplex, Custom	
Operating Modes	Fade, ON/OFF, Dimming, 0-10 VDC	
Operating Voltage	70VAC	
Operating Frequency	25.32.50Hz	

¹ Measured with extra clear glass

² Optical Performance measured using square wave signals provided by Gauzy PDLC Controllers

³ Haze tested on 'haze-gard i', by BYK , laminated with PVB processing. Haze performance may vary if laminated with other types of interlayers

⁴ Film thickness (μ) may vary

⁵ Films can be ordered in rolls or cut-to-fit sheets at any length

⁶ Results based on IR Solar Control Film laminated and implemented in the following stack: SN51 on 8mm Low Iron (pan #2)/16mm Argon/8mm Low Iron + SP-PDLC + 8mm Low Iron, final properties are based on lamination stack specification

* VLT is lower for the IGU as compared to lamination. In On/Off state the light transmittance is 38% and 31% respectively

* Optical measurements are carried out at different temperatures from low to high to accomodate cooling times of PDLC and glass

⁷ Gauzy Solar LCG® reflects up to 78% of thermal IR, which reduces temperatures inside a space by up to 15°C. Solar IR = 2000nm. This is the point where thermal IR is generally benchmarked

⁸ Above 800 nm, IR PDLC films reflectance range increases and achieves ~78% ,at 2000 nm, while the regular PDLC films present ~5%

*Unless otherwise specified, measurements were conducted at 25°C

Gauzy's Adhesive Solar Performance (ASP - LCG®) is ideal for improved thermal and visual comfort while reducing HVAC cooling costs and direct glare that disrupts occupant wellbeing. Blocking IR, UV, and Visible Light combined with on-demand privacy and transparency, Solar PDLC Smart Film offers a technologically advanced and sustainable projects. Solar Control PDLC smart film is an easy to install upgrade, increasing energy efficiency while providing a technologically advanced, sleek shading solution to reduce eye strain while still maintaining a light filled open atmosphere.

Key Features:

- Blocks up to 55% of Solar IR range and 99.9% of UV
- Reduces temperature by up to 15°C inside a space
- 60% visible light transmission when off maintains a light filled atmosphere while shading and reducing glare
- Premium optical performance with haze as low as 3.6%
- Outdoor grade, supporting architectural glass up to 1.5m wide

Adhesive smart film with solar control properties is designed to be applied directly onto existing glass windows by trained window film installers. The product is optimized to perform in wide temperature ranges and is most commonly specified for facades, skylights and atriums.

Specifications:

White ASP

Film Optical Performance			
Attribute		OFF	ON ₁
Parallel Light Transmittance		4.8%	73.7%
(VLT (Total Transmittance		61.7%	77.8%
Haze (ON 25°C) ₂		3.2%	
Color Grade	*L	82.2	
	*a	-1.6	
	*b	8.93	
Film Technical Properties			
Switching Time		6ms	
Lifecycle		+ Million 18	
Film Operating Temperature ₃		-20°C to +90°C	
Film Power Consumption		1-3W/m ²	
Film Thickness		μ 490	
Maximum Width (mm) ₄		1500	
Cut-to-Fit		Custom Sizes, Shapes, Busbar Position; Holes and Notches	
Glass Types		Annealed, Tempered, Clear, Low Iron/Ultra Clear, IG Units, Other	
Adhesive Type		Dry	
Scratchproof Coating		Yes	
Storage Conditions		-20°C to +60°C, <50% Humidity	
Grade		Exterior	
Film Solar Performance ₅			
Attribute		Off	On
Visible Light Reflection - Interior		24.2%	16.2%
Visible Light Reflection - Exterior		21.61%	12.2%
UV Block		99%	99%
Shading Coefficient		0.54	0.68
G- Value		0.47	0.6
U- Value W/K*m ²		5.95	5.95
T(°C) ₆ Δ		Up to 15°C	
Energy Saving		For every degree reduced, Gauzy saves approx. 7% on air conditioning costs	
Electrical Performance			
Operative Controllers		DUO Mini & Flex, Multiplex, Custom	
Operating Modes		Fade, ON/OFF, Dimming	
Operating Voltage		48-70VAC	
Operating Frequency		25.32,50Hz	

¹ Optical Performance measured using square wave signals provided by Gauzy PDLC Controllers

² Haze tested on 'haze-gard i', by BYK.

³ Film thickness (μ) may vary

⁴ Films can be ordered in rolls or cut-to-fit sheets at any length

⁵ Results based on Gauzy's Solar Film retrofit on clear glass

* Optical measurements are carried out at different temperatures from low to high to accommodate cooling times of PDLC and glass

⁶ Gauzy Solar LCG® reflects up to 55% of thermal IR, which reduces temperatures inside a space by up to 15°C. Solar IR = 2000nm. This is the point where thermal IR is generally benchmarked

⁷ Above 800 nm, IR PDLC films reflectance range increases and achieves ~55%, at 2000 nm, while the regular PDLC films present ~5%