



Privacy – PDLC Technology
OPAQUE TO TRANSPARENT



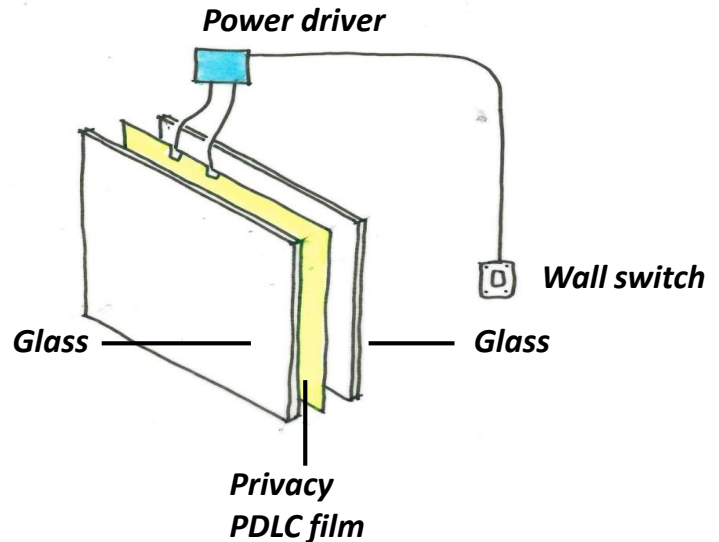
iGLASS
AUSTRALIAN INTELLIGENT GLASS

ABOUT PRIVACY GLASS

iGlass Privacy is a laminated glass product which uses polymer dispersed liquid crystal (PDLC) technology to transition from opaque to transparent with the application of an electrical current.

iGlass Privacy film has been developed in collaboration with CSIRO, Queensland University of Technology and Monash University using nanoscale chemistry and advanced manufacturing platforms. With continuous R&D and sales to over 51 countries across the globe, iGlass Pty Ltd is regarded as the leading brand in its field.

iGlass Privacy is a multi-layered technology and is certified to Grade A safety glass complying to Australian Standard 2208 (certificate available upon request).

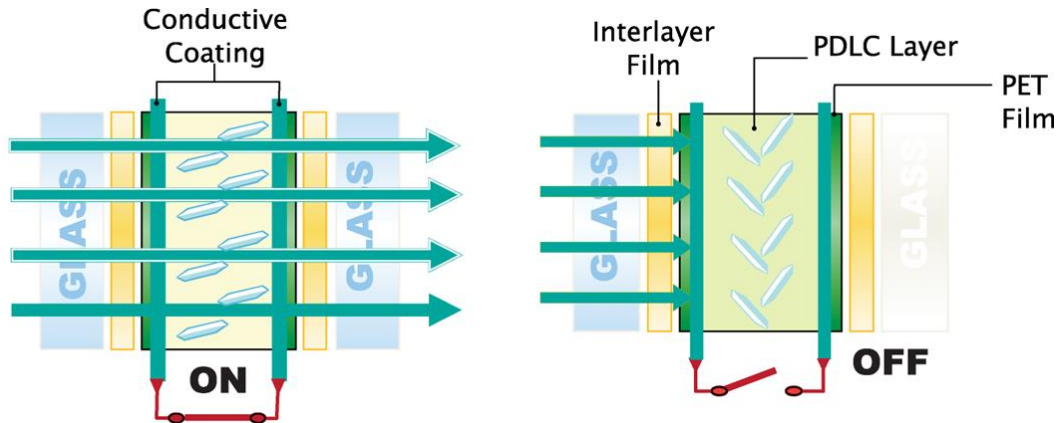


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HOW DOES IT WORK?

Liquid crystals (LC) are dispersed within a formulated polymer matrix enabling the parallel alignment of LC droplets when the flow of electricity occurs. When the flow is stopped, the crystals return to their original position (randomly orientated to each other), blocking out the light. PDLC film is then laminated between two panes of glass to become laminated privacy glass.

To control Privacy glass, electricity is passed through the conductive surface via a transformer and an electrical connector. When the current flows, the glass becomes clear. When the current is switched OFF, the glass returns to the opaque mode to achieve privacy.





Great for meeting rooms as an alternative to partitions



Popular in bathroom windows and doors to avoid mildew and dust on blinds



Provides privacy to staff and patients while reducing the costs associated with the short life-cycle of curtains.

TECHNICAL DETAILS

Manufacturer	iGlass Pty Ltd, Ballarat, VICTORIA 3350, Australia
Glass type	<ul style="list-style-type: none">• Laminated safety glass AS2208 with iGlass interlayer• Custom made glass to specification
Country of origin and manufacturer of raw material (glass)	<ul style="list-style-type: none">• Australia• Viridian and G. James Glass & Aluminium
Country of origin (film and manufacturer)	<ul style="list-style-type: none">• Australia• iGlass
Country of origin (glass lamination)	<ul style="list-style-type: none">• Australia
Country of origin (power driver)	<ul style="list-style-type: none">• China• iGlass licensed manufacturer: Torema Engineering Pty. Ltd. (QLD)
Australian backed warranty	<ul style="list-style-type: none">• 5 Years from date of installation• Refer to warranty sheet



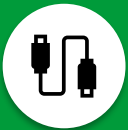
TECHNICAL DETAILS

Electro-Optical Information

iGlass (ASTM D1003)	ON/Max (Clear)	OFF/Min (Frosted)
Light transmission	75% (changes according to Glass thickness)	51% (changes according to Glass thickness)
Light reflection	13%	19%
Haze	8%	96%
Switching speed (milliseconds)	<15ms	50ms
Electrical input	110V AC	0V
Power consumption	3.5-5W/sqm	0W
Current	200mA/sqm	0A

Glass types	Float. Heat Strengthened. Toughened Made to customer's request
Standard laminated iGlass thickness	4mm Clear float + 1.2mm (0.4 interlayer + 0.4 iGlass + 0.4 interlayer) + 4mm Clear Float = 9.2mm total thickness
Maximum size	1400 x 3000mm Longer length may be available for narrower width
Variation	Toughened, heat strengthened, double glazed <ul style="list-style-type: none"> • Varying thickness • Varying appearance may be visible if toughened. • Performance – dependant on the glass make-up and the film generation
Shapes and cut-outs	Possible with accurate CAD file drawing Holes for door fittings Different shapes to suit your window design.
Butt-join	Possible only with approved sealants as specified in the installation manual
Exposed edges to constant water	Do not expose edges as this may cause delamination
Operating temperature	-5°C to 60°C Above 60°C, thermal transition occurs and glass begins to become transparent Fully transparent at 85-90°C
Thickness (as one single laminated glass)	9.2mm – 18mm
Position of busbar	Top of panel (unless otherwise specified) Encapsulated inside the glass laminate
Busbar wiring	(24-26AWG PTFE, 300V,6A) single core Length = 250-300mm
Busbar width from edge of glass to edge of busbar	10-12mm





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