

## How to Specify

### Are you considering incorporating Switchable Privacy Glass into your client's building?

Use the following information as a guide to understanding Switchable Privacy Glass.

#### Framing

Switchglass™ panels can be framed into any standard framing system for single or double glazing. The only considerations are:

- Our minimum panel thickness is 9.52mm.
- Allowance must be made for the panel's wires.

#### Installation

- Switchglass™ panels must be installed by Qualified Glaziers.
- Our Global Team can install the product for your client, or you may choose another glazing company to do so.
- A Registered Electrician is also required for the wiring-in of the product.
- Failure to meet either of the above-mentioned stipulations will invalidate Switchglass' Warranty.
- For more information refer to our Technical Installation Guide.

#### Crating, Freighting, Receiving

Switchglass™ is an electrical glass product and therefore requires consideration in its receiving and handling prior to installation.

#### Colours

Switchglass™ can be manufactured using various coloured glass; for example bronze, green, blue or grey.

#### Shapes

Switchglass™ panels can be made curved, notched, or in any shape, and may also have holes cut out.

#### Clarity

There is an inherent slight haze in Switchable Privacy Glass in its clear 'on' state, therefore it is important to consider the ambient luminescence and lighting near your Switchglass™ panel/s in order to create optimum display conditions (in either 'on' or 'off' state).

#### Glass and Panel Thickness

Switchglass™ panels can be constructed using 4mm glass panes or thicker, and can be multi-laminated if required.

Our standard, minimal-thickness and composition of a completed Switchglass™ panel is:

4mm annealed glass + 1.52mm PDLC interlayer + 4mm annealed glass  
= Total Panel Thickness of 9.52mm.

#### Glass Size

The largest sized Switchglass™ panel we currently produce is 1820mm x 3500mm.

#### Glass Types

Switchglass™ panels can be constructed using the following glass types:

- Annealed (float)
- Toughened/tempered
- Impact-resistant
- Cyclone-resistant
- Fire-resistant
- Low Emissivity, Low Iron (Starfire, SuperClear)
- Coloured

#### Operable Wall Systems

- For stackable, operable wall systems, bi-fold or slider doors and windows Switchglass uses a proprietary magnetic connector system.
- This system operates on Extra Low Voltage (36VAC) and the panels incorporate Low Voltage PDLC Film.
- Appropriate 36VAC step-down transformers are supplied.
- Depending on your client's circumstances, the panels may be single or double glazed.
- For best acoustic resistance the panels can be laminated with a proprietary acoustic interlayer and/or double or triple glazed.

### Clear Edge

All Switchable Privacy Panels will have a surrounding clear edge of approximately 5mm. This will be hidden when fully framed but with semi-framed or butt-joined panels it will be visible.

### Glass Location

Consideration must be given to where, within a building, the Switchglass™ panels are to be used.

- In some locations Australian Standards may require Toughened laminated glass be used, and/or double glazed (e.g. shower cabinet).
- Switchglass™ used on external walls: Australia's sometimes extreme climatic conditions may require that the panels be double glazed units and incorporate Low-E glass.
- Switchglass™ panels that are to be installed in wet areas such as bathrooms or shower cabinets will need to be well sealed, the edges impervious to water, and fully framed as specified in our Technical Installation Guide.

### Cost

- Contact us by phone or email to discuss your project requirements.
- Should there be something not covered in this guide, you may find the answers in the FAQ section of our website.

### What We Will Need From You

- **Your name and company name**
- **Your contact number**
- **Project location**
- **Project timeline**
- **Project glass specifications**

## Technical Data

Glass Colour	Can be combined with colour interlayers or a wide range of tinted glass to meet any requirement
Decorative Glass	Screen printed, sand blasted, fritted and/or patterned
Glass Type	Low iron, annealed, heat strengthened, tempered/toughened (all laminated)
Thickness	From 9.52mm to multi-layer laminates
Size	Up to 1,820mm x 3,500mm – Switchglass has the largest size available on the market
Shape	Any shape or curved, including holes, notches and cut-outs
Environmental	Storage: -20degC to 70degC Operation: -10degC to 60degC
Electrical	Driving Voltage: 65VAC (Transformer supplied) Current: 200mA per square metre Power: 5Watts per square metre
Switching Time	Approx. 100 milliseconds at room temperature
Optical	Visual Light Transmission: Approx. 75% to 80% (in 'on' state) Scattering Effectiveness: Approx. 25mm
Life	25 years (indoors) when used, installed, and stored properly as per the usage, storage and installation specifications referenced herein.  Claim is supported by Manufacturer's testing data.  Standard Warranty two (2) years or an Extended Warranty of up to five (5) years on Switchable Privacy Glass panel (or as specified on quotation).  To help preserve the longevity of its liquid crystals, Switchable Privacy Glass panel must have at least 4 to 5 hours in its "off" state during a 24 hour cycle and must not be left "on" continuously for over 20 hours at a time.

### Guide to Switchable Privacy Glass Acoustic Data

Customised acoustic combinations available on request

#### Examples of Switchable Privacy Glass Acoustic Data

Test ID	Overall Thickness	Construction - Laminated	Interlayer	dB Acoustic Rating (Rw)	Specification ID Code
RAL:TL06-151	9.52mm	4mm glass x 1.52 Switchglass interlayer x 4mm glass	Standard	35	SGS-9.52
RAL:TL06-152	10.35mm	4mm glass x 2.35 Switchglass interlayer x 4mm glass	Acoustic	36	SGA-10.35
RAL: TL04-204	11.52mm	5mm glass x 1.52 Switchglass interlayer x 5mm glass	Standard	36	SGS-11.52
RAL: TL07-197	12.35mm	5mm glass x 2.35 Switchglass interlayer x 5mm glass	Acoustic	37	SGA-12.35
RAL: TL04-139	13.52mm	6mm glass x 1.52 Switchglass interlayer x 6mm glass	Standard	37	SGS-13.52
RAL: TL07-186	14.35mm	6mm glass x 2.35 Switchglass interlayer x 6mm glass	Acoustic	39	SGA-14.35
RAL: TL06-140	17.52mm	8mm glass x 1.52 Switchglass interlayer x 8mm glass	Standard	38	SGS-17.52
RAL: TL07-208	18.35mm	8mm glass x 2.35 Switchglass interlayer x 8mm glass	Acoustic	40	SGA-18.35
RAL: TL06-121	21.52mm	10mm glass x 1.52 Switchglass interlayer x 10mm glass	Standard	41	SGS-21.52
RAL: TL06-122	22.35mm	10mm glass x 2.35 Switchglass interlayer x 10mm glass	Acoustic	42	SGA-22.35
RAL: TL04-141	25.52mm	12mm glass x 1.52 Switchglass interlayer x 12mm glass	Standard	42	SGS-25.52
RAL: TL07-188	26.35mm	12mm glass x 2.35 Switchglass interlayer x 12mm glass	Acoustic	43	SGA-26.35

#### Glass and Framing System Construction

RAL: TL06-269	42.90mm	8.38mm (25AS) Spacer + 9.52mm Switchglass	Standard	44	SGC-42.9
RAL: TL06-270	119.90mm	8.38mm (102AS) Spacer + 9.52mm Switchglass	Standard	47	SGC-119.9
RAL: TL06-324	131.90mm	8.38mm (114AS) Spacer + 9.52mm Switchglass	Standard	44	SGC-131.9

#### Construction – Double Laminated IGU

RAL: TL06-197	27.52mm	6mm (12AS) Spacer + 9.52mm Switchglass	Standard	44	SGDG-27.52
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