



# Industry leading glass products, with industry leading results.

Cooling Brothers have been established in Western Australia since 1938.
With this experience, we believe our company is at the market's forefront for quality, service, innovation and expert knowledge

Australian owned and operated, we proudly manufacture all our products at our state of the art facility in Perth, Western Australia.

Continual investment in new technology allows us to stay at the leading edge of the glass industry, defining and maintaining benchmarks of innovation and quality.

Centrally located, we offer a metro-wide glazing service, completing all projects large or small, promptly and efficiently. Our services extend beyond Perth, and we have successfully applied our expertise to numerous projects throughout Australia.

We continue to be inspired by the unlimited possibilities of glass applications. Together with a genuine passion for glass and our industry, we are proud to provide the service and expertise to transform your glass vision into reality.

## INTERESTED IN LEARNING MORE ABOUT GLASS?

We offer factory tours for up to 20 people at a time. We'll give you and your team an in-depth tour of our facility and production processes, and we'll also put on some food and drinks at the end to make sure you don't go home hungry!

Call us (08) 6104 1777 to book in a time that suits you and your team.





### VANCEVA® COLOUR SYSTEM

Vanceva interlayers incorporate colour into laminated glass and glazing systems for creative freedom across a massive colour system

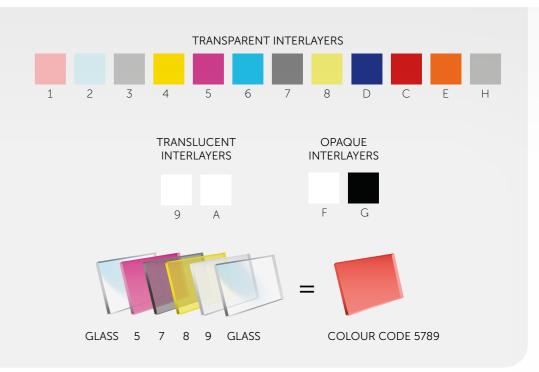


We are the leading suppliers of the Vanceva® Colour System, coloured interlayers that are permanently laminated between two pieces of glass. Vanceva colours range from pale whites and browns to vibrant bright purples and pinks, and are available in transparent, translucent or opaque colour options. This allows designers, architects and engineers to create the perfect tone and intensity within glazing design.

Vanceva colours are comprised of light and heat stable pigments, rather than the dyes usually found in ink-based systems. These pigments are designed to provide extensive colour durability, even when exposed to direct sunlight.

Produced in our custom laminating facility in Perth, Vanceva coloured interlayers can be combined with clear or low iron glass types. Low-E glass can also be used for improved solar and UV protection, and once laminated Vanceva can even be combined into double glazed units.

The Vanceva base palette consists of 12 transparent, 2 transulcent and 2 opaque colours. Up to 4 of these colours can be combined in one panel of glass to achieve a particular colour, and level of translucency or transparency.



#### **FEATURES**

0.38mm PVB Coloured interlayers

Transparent, Translucent and opaque colour

5 year warranty against film failure

Increased sound, solar and UV performance

Combine with ImagInk ceramic printing for endless creative options

#### **APPLICATIONS**

Urban facades, overhead glazing, retail shelving, skylights, flooring, doors, windows, balustrades

#### MINIMUM SIZE

MAXIMUM SIZE

250 x 400mm

2400 x 5100mm

#### THICKNESS

8.76 to 21.52mm, custom thickness upon request

#### **GLASS TYPES**

CLEAR | TINTED | LOW E | LOW IRON |

The interlayer combination can be four of the same colours, or four different colours. With an almost endless selection of combinations, Vanceva offers a broad spectrum of more than 3000 colours in translucent, transparent or opaque finishes.

If the eye popping colours offered aren't enough, clients looking for a truly unique approach should consider combining Vanceva with our ImagInk printed glass for stunning results!



HOW TO SPECIFY:

Select product name
[Cooling Brothers Vanceva]

>

Select product thickness
[ 8.76 to 21.52mm or custom ]



Select glass type
[ Clear, Low E, etc. ]







ImagInk® is a super-durable glass printing process, utilising vibrant ceramic inks that are fired directly onto the surface of the glass.



Printing at a resolution of up to 360dpi, ImagInk® can be used to reproduce full colour photos, vector graphics and even textures on glass with pinpoint accuracy.

With the ability for designs to be scaled for small scale speciality projects or large scale multi-pane developments, the scratch and fade resistant properties of the ceramic inks are perfect for external applications.

Detailed performance data is also available to assist architects and designers in design development of printed facades, turning what was once a purely aesthetic decorative surface into an integral performance component.

#### DIGITAL FILE FORMATS

ImagInk can accept bitmap and vector images, with the preferred file formats being EPS, TIFF, JPEG or PDF. Bitmap (photographic) images should be supplied in CMYK colour and at 300dpi where possible. For more information on creating files for printing using ImagInk, please call us on (08) 6104 1777.



Single piece of glass print on reverse surface



Laminated, print encased between glass



Laminated, printed surface exposed to external

#### DIRECT-TO-GLASS PRINTING FOR ULTIMATE FLEXIBILITY

ImagInk glass can be installed as a single monolithic piece, or combined into a laminate makeup. The durability of the ceramic inks allows the printed surface to be installed exposed to reduce reflectivity, presenting further creative possibilities for artists, architects and designers.

#### **FEATURES**

UV, water, solvent, chemical & scratch resistant ceramic inks

Detailed performance data available for printed surfaces, including SHGC, Solar Trans/Refl and LT

Control of ink coverage allows fine tuning of light transmission for individual areas in the same panel

Acid etch and non-slip inks available

25 year warranty against fading and discolouration

#### **APPLICATIONS**

Facades, Balustrades, Spandrel panels, Public art, Partitioning, Shower screens, Windows

#### MAXIMUM SIZE

**THICKNESS** 

4mm to 19mm

4300 x 2440mm

8.76mm to 40.28mm

#### **GLASS TYPES**

CLEAR TINTED LOW E LOW IRON



**HOW TO SPECIFY:** 

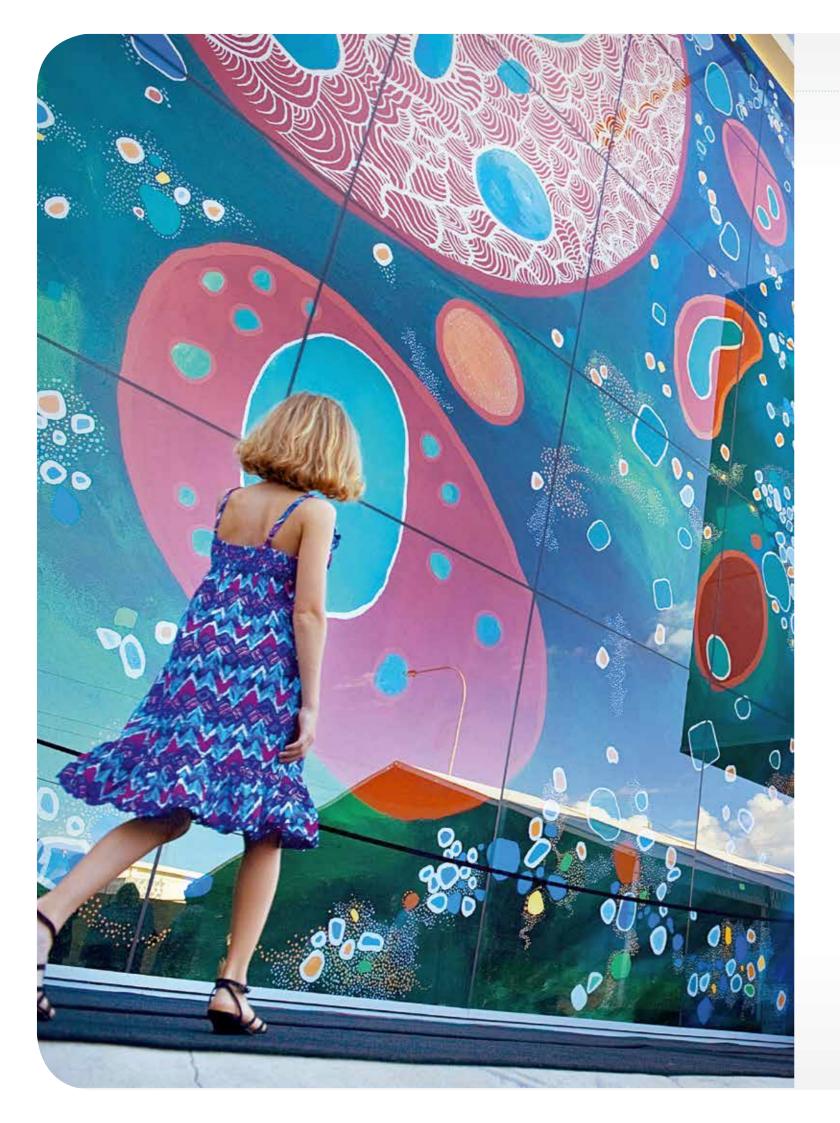
Select product name [ Cooling Brothers ImagInk ]



Select product thickness and process [4mm to 19mm - Toughened] [8.76mm to 40.28mm - Toughened Laminate]



Select glass type [ Clear, Low E, etc. ]



### THE MUNDAY WALL

A 72sqm printed glass facade, featuring Australia's first large scale Indigenous artwork on glass.

A national first for Indigenous artwork on glass, the Munday Wall is a stunning showcase of what happens when contemporary, Indigenous artwork is combined with the vibrant, full colour capabilities of the ImagInk® digital ceramic printing.

Kidogo Art Institute were commissioned by Cooling Brothers to create a 1.5 x 1.2m acrylic on canvas. The artists drew primary inspiration from a significant swamp and wetland system known as The Munday Swamp, which is located under a kilometre from the Cooling Brothers premises in Perth.

The artwork was then photographed in six sections, digitally stitched together, enlarged, and printed on glass using the ImagInk process.

Produced as double glazed units to fit the framing system used on the facade, the double glazed makeup does not affect the print or colour in any way, and further demonstrates the flexibility of the ImagInk process to be used in any glass application.

A testament to the durability of the ceramic inks, The Munday Wall comes under the company's 25 year ImagInk guarantee against fading or discolouration.

The Munday Wall is lit at night with high powered halogen spotlights, and is now on permanent display at 961 Abernethy Road, High Wycombe.







From L to R: Artists Wendy Hayden, Joanna Robertson and Deborah Bonar from Kidogo Art Institute



Cooling Brothers Glaziers installing the double glazed units



Subtle elements such as brush strokes and canvas texture add a wonderful sense of depth when enlarged on glass



The Munday Wall measures 9.5m high by 7.6m wide, with total surface area of 72sqm.





### IMAGINK® DESIGN COLLECTION

Introducing our brand new range of architectural patterns and textures, designed specifically for canopy, awning and commerical applications.



The ImagInk Design Collection provides shading, diffused lighting and increased glare control for glass canopies and awnings, while obscuring debris that can accumulate on top of the glass.

A completely digital workflow creates flexibility in design without the limitations of traditional screen printing, allowing patterns to be custom scaled according to each application.

Samples of all our patterns are available on request, please contact us on (08) 6104 1777 for more information.



### **FEATURES**

Seamlessly tiling, scalable patterns

Detailed performance data\* available for all patterns including custom requests

Extensive range of colour options

UV, water, solvent, chemical & scratch resistant

MAXIMUM SIZE THICKNESS

4mm to 19mm 4300 x 2440mm 8.76mm to 40.28mm

**GLASS TYPES** 

CLEAR | TINTED | LOW E | LOW IRON

\*Performance data is an estimate calculated using white ink, and relates to the printed surface only. White ink is printed at ImagInk recommended coverage, different ink colours can be calculated and will effect performance values. Custom pattern performance data is available on request.

**HOW TO SPECIFY:** Select product name

[Cooling Brothers ImagInk - Pattern Name]

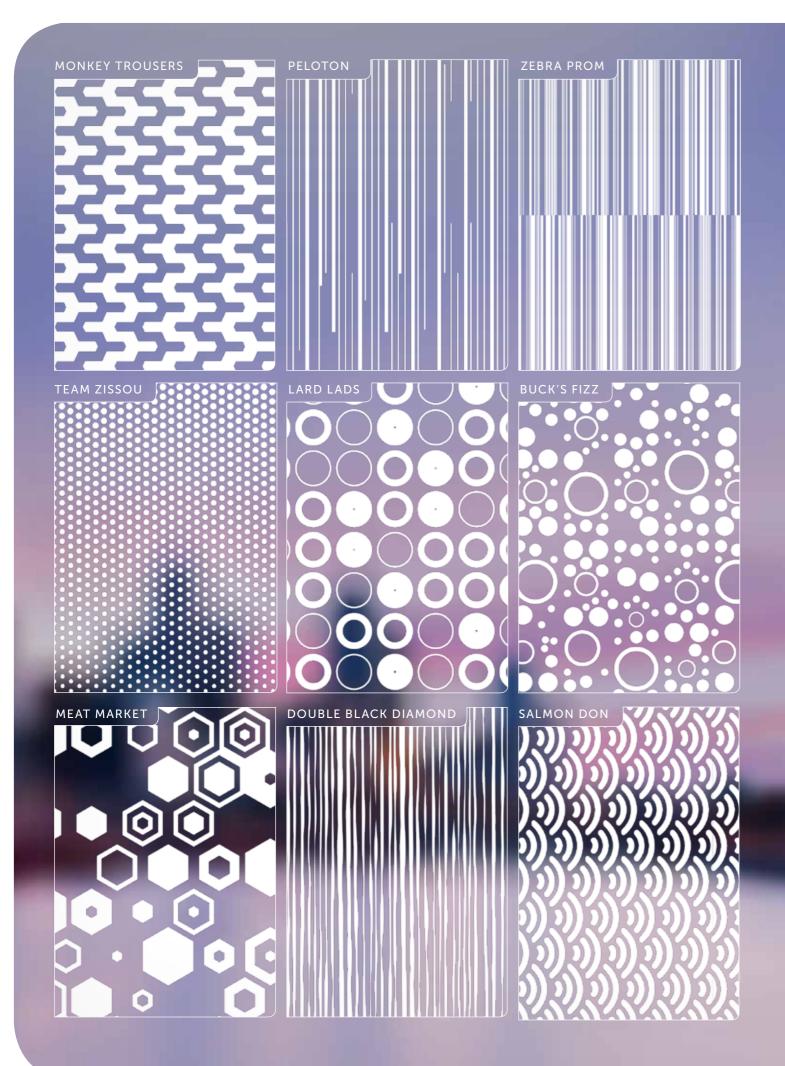
[ Black, White, Custom Colour ]

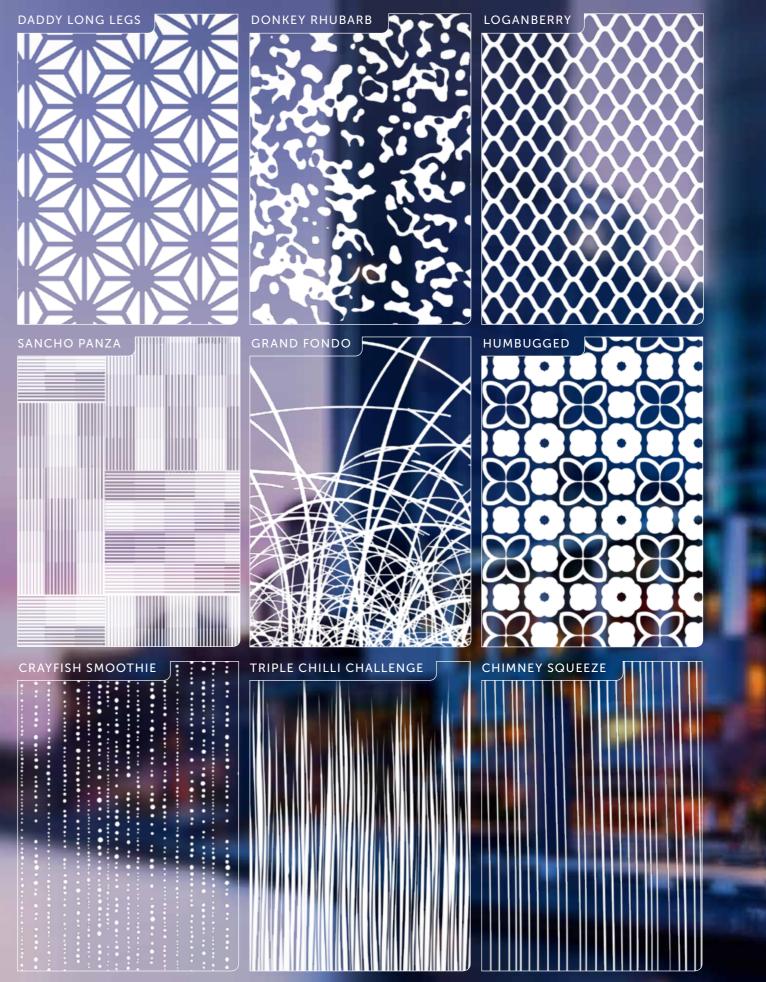


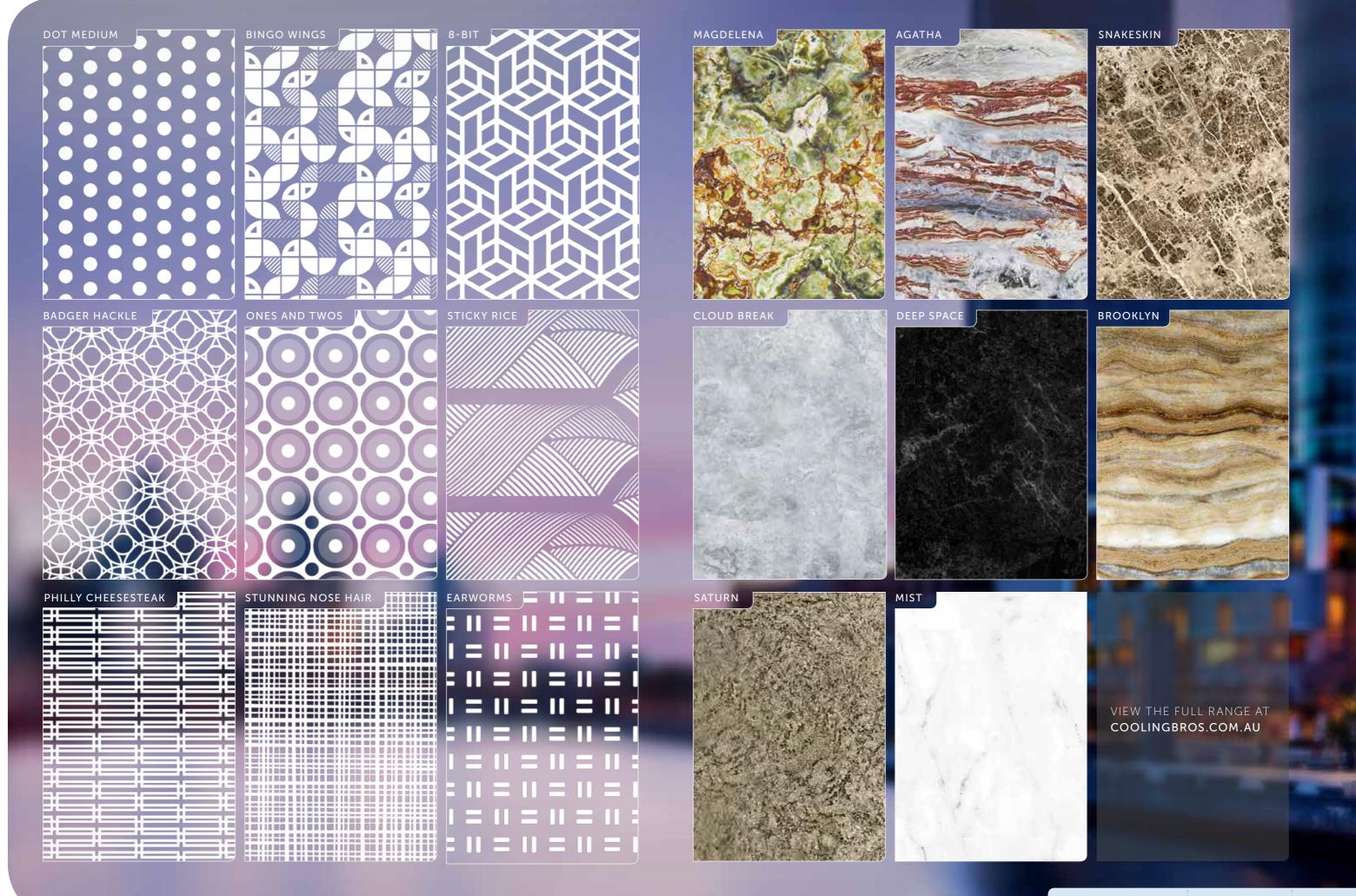
Select product thickness and process [ 4mm to 19mm - Toughened ] [ 8.76mm to 40.28mm - Toughened Laminate ]















ImagFilm<sup>™</sup> printed interlayers offer unrivalled resolution and colour accuracy, perfect for artistic and photographic applications on glass.



ImagFilm™ is the ideal medium for artists and photographers who are looking to reproduce their artworks onto a glass canvas. ImagFilm is produced using a high resolution printed interlayer, laminated between two pieces of glass. This specialised interlayer is printed using a CMYK colour process and can reproduce any image in stunning detail at a resolution of up to 1200dpi.

ImagFilm is currently recommended for indoor use, however outdoor applications are possible and are guaranteed for up to 5 years colourfastness, until further testing is completed.

#### DIGITAL FILE FORMATS

ImagFilm can accept bitmap and vector images, with the preferred file formats being EPS, TIFF, JPEG or PDF. Bitmap (photographic) images should be supplied in CMYK colour and at 300dpi where possible. For more information on creating files for printing using ImagFilm, please call us on (08) 6104 1777.



OPAQUE

TRANSLUCENT

TRANSPARENT

#### TRANSPARENCY CONFIGURATIONS

ImagFilm can be produced to suit incorporation into three transparency options. The choice of transparency level varies depending on the desired light transmission, and lighting condition requirements of the intended application.

#### **FEATURES**

1200 dpi printing resolution

Full colour gamut for exceptional colour accuracy

Three transparency options available

Grade A safety glass

5 year warranty against fading and discolouration

#### **APPLICATIONS**

Public art projects, Photography exhibitions, Office partitions, Splashbacks, Windows, Benchtops, Balustrades

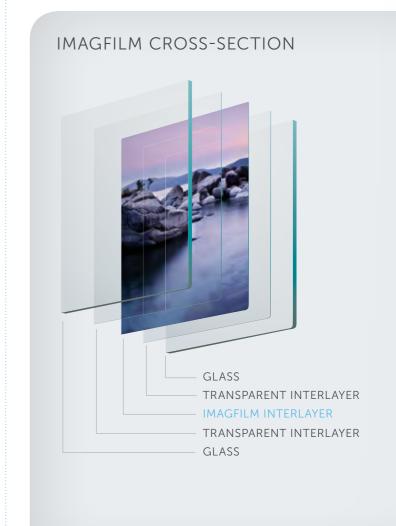
#### MAXIMUM SIZE THICKNESS

1500 x 5000mm

8.89mm or 9.65mm, custom thicknesses available on request

#### **GLASS TYPES**

CLEAR LOW IRON TINTED LOW E



**HOW TO SPECIFY:** 

Select product name [Cooling Brothers ImagFilm]

Select product thickness and process [ 8.89mm Annealed Laminated ] [ 9.65mm Toughened Laminated ]



Select glass type [ Clear, Low E, etc. ]

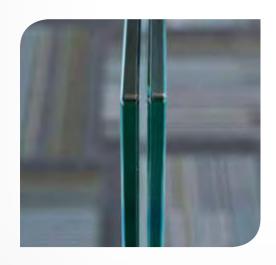






### VISTAVIEW\*

Vista View® is a structurally engineered frameless glass balustrade system, designed to eliminate handrails without compromising on safety.



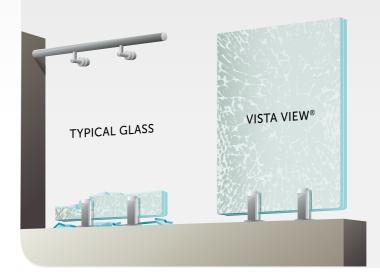
Vista View® is a toughened, laminated, glass balustrade system that is engineered around the Dupont™

SentryGlas®Plus (SGP) interlayer. The SGP provides structural rigidity 100 times stiffer than conventional laminating material, and is highly resistant to de-lamination or clouding as a result of exposure to UV and moisture.

Vista View is BCA compliant for installation without a handrail\*, allowing unobstructed views in residential and commercial applications.

A benchmark of expert workmanship, Vista View balustrade panels feature highly polished interlayer edges and CNC polished radius corners; a standard of quality that is unmatched on any other frameless glass balustrade system.

\*Vista View is a structurally engineered glass product. To meet BCA compliance, finished Vista View panel size and thickness must be advised and signed off by structural engineer prior to installation. Please contact us on (08) 6104 1777 for more information.



#### ENGINEERED FOR SAFETY

Utilising an SGP interlayer, Vista View® panels remain upright if broken, providing a permanent barrier and preventing a fall, without the need for a handrail.

<

A comparison between a typical glass balustrade panel and Vista View<sup>®</sup>, after considerable impact.

#### FEATURES

Truly frameless balustrade solution

BCA compliant\*

Remains permanent barrier even if shattered

CNC polished radius corners

Highly polished interlayer edges

Compatible with all standard balustrade fittings

5 year warranty against delamination

#### **APPLICATIONS**

Balconies, Stairs and Windbreaks

Areas where handrails are unable to be installed

#### **GLASS TYPES**

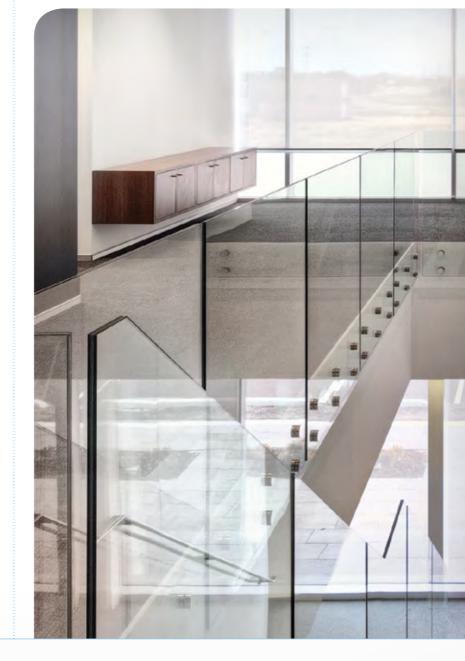
CLEAR LOW IRON TINTED

MAXIMUM SIZE THICKNESS

2140 x 3660 mm 14.28mm to 32.28mm\*

#### FIXING SYSTEMS

PLANAR | STIRRUP | CHANNEL FIX



**HOW TO SPECIFY:** 

Select product name
[Cooling Brothers Vista View]

>

Select product thickness\*
[14.28mm to 22.28mm]



Select glass type
[ Clear, Low Iron, Tinted ]





### CUSTOM LAMINATE

Custom Laminate Glass provides architectural design solutions for swimming pool walls, stair treads, floors, roof canopies and many other frameless applications.

Custom Laminates can be combined with a variety of interlayer options, including PVB, SGP, EVA and Polycarbonate. Tinted interlayers such as Vanceva Colours are also available, as well as the option to combine with ImagInk digital ceramic printing, and even ImagFilm printed interlayers.

We are able to assist in all stages of the design process, from concepts through to installation, and we can provide engineering certification where required.



#### **FEATURES**

Custom makeups allow configuration for any job type and installation

PVB, SGP, EVA or Polycarbonate interlayer options

Engineering certification available

Combine with ImagInk ceramic printing and coloured interlayers

#### **APPLICATIONS**

Architectural projects which require custom, one-off glass solutions

#### MAXIMUM SIZE

2600 x 5100mm

#### **GLASS TYPES**

CLEAR | TINTED | LOW E | LOW IRON |



HOW TO SPECIFY: Our custom laminate solutions are available in almost endless makeups and sizes. To ensure correct specification details for your project, please call us on (08) 6104 1777, and ask to speak with a glass consultant for further information.





### **TEMPESTGUARD**™

Tempest Guard<sup>™</sup> provides cyclonic protection for glass windows and doors located in Australia's most storm prone areas.



Tempest Guard™ Cyclonic Glass consists of a toughened laminate makeup, incorporating specialised structural interlayers to achieve the extreme glass strength that is required in cyclonic regions. Tempest Guard has been successfully tested at speeds of up to 44m/s as detailed in AS/NZS1170.2. Testing includes the following:

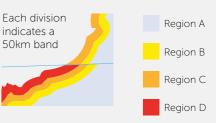
a) the cyclonic impact test of a 4kg piece of timber; and b) an 8mm steel ball, both travelling at 44 metres per second.

Tempest Guard must be installed in an approved cyclonic framing system to ensure full compliance with AS/NZ1170.2. Capral 400 Series frames have been tested and approved, for details on alternative farming systems and best practice glazing methods for Tempest Guard, please visit call us on (08) 6104 1777 and ask to speak with a Glass Consultant for more details.



#### AUSTRALIAN WIND REGIONS

Tempest Guard is designed and approved for use in cyclonic wind regions C and D. Additional makeups can also be produced to satisfy non-cyclonic wind speed ratings in regions A and B.



#### **FEATURES**

Tested and certified to AS1170.2 / 44 m/s

Remains a permanent barrier after impact

Eliminates the need for storm shutters

Provides additional UV, sound insulation and security

Available in Low E configurations

#### **APPLICATIONS**

Commercial & residential projects located in areas subject to frequent cyclones and storms

### THICKNESS

44 m/s - 16.54mm 35 m/s - 12.56mm

#### **GLASS TYPES**

CLEAR TINTED LOWE LOWIRON



**HOW TO SPECIFY:** 

Select product name [ Cooling Brothers Tempest Guard ]

Select product thickness [12.56mm, 16.54mm]





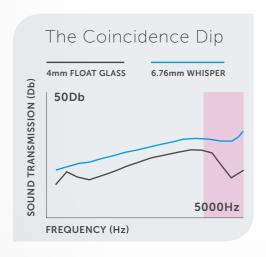


23





Whisper<sup>™</sup> provides acoustic insulation for glass installed in high noise residential and commercial applications.



Regular monolithic glass, toughened or float, provides some acoustic insulation against noise, however it suffers from a 'coincidence dip' at higher frequencies. This dip causes the glass to vibrate at the same frequency as the noise, transmitting the noise through the glass. Our ears are more sensitive to these higher frequencies, and as such we perceive them to be far more intrusive than lower frequencies.

Whisper™ Acoustic Insulation reduces noise by using a unique acoustic PVB (Polyvinyl Butyral) interlayer, which incorporates a dampening core between the two panes of glass. This core acts to prevent vibration and eliminate the coincidence dip.

It is strongly recommended that Whisper is installed with framing configurations designed to reduce air leakage, as air leakage will significantly effect the acoustic performance of the glass.

#### WHICH WHISPER SOLUTION BEST SUITS YOUR ENVIRONMENT?

Isolating noise problems to be targeted with acoustic glazing remains difficult. The process of designing for noise reduction requires measuring the intensity and nature of the target sound, as well as measuring the internal sound level of a building in order to achieve a desired decibel reduction. As this may not always be possible, the chart below provides a guide towards which whisper thickness is suitable for a range of common applications.



Use this chart to determine your environment's optimum level of noise insulation.

APPLICATION	EXTERNAL NOISE SOURCE (DB)			
	65 (low)	75 (med)	85 (high)	
OFFICE	6mm Float	6.76mm Whisper	6.76mm Whisper	
LIVING ROOM	6.76mm Whisper	6.76mm Whisper	10.76mm Whisper	
BEDROOM	6.76mm Whisper	10.76mm Whisper	10.76mm Whisper	

For high level external noise situations, Whisper should be combined in a DGU with a differing glass thickness to achieve high level reduction. Call (08) 6104 1777 and ask to speak with a glass consultant for more information.

#### **FEATURES**

Acoustic PVB Interlayer Technology

Grade A safety glass

Combine with tinted interlayers

Compatible with Low-E and performance glass

#### **APPLICATIONS**

Offices, Airports, Apartments, Hotels, Hospitals, High security institutions

MAXIMUM SIZE THICKNES	1AXII	IUM SIZE	TH	<b>ICKNES</b>
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3660 x 2440mm 6.76mm or 10.76mm

#### **GLASS TYPES**

CLEAR | TINTED | LOWE | LOWIRON |



**HOW TO SPECIFY:** 

Select product name [Cooling Brothers Whisper]

Select product thickness [ 6.76mm or 10.76mm ]



Select glass type [ Clear, Tinted, etc. ]







Insulcool<sup>™</sup> provides architects and designers with the flexibility and high performance of double glazing to meet heating and cooling requirements in commercial and residential applications.

InsulCool™ Double Glazed units (also known as IGU's) consist of two layers of glass separated by an air or argon filled gap.

The combination of airspace and multiple glass panels creates an additional barrier that decreases the air-to-air temperature transfer, while reducing direct and radiant temperature transfer from outside or inside the building.

Insulcool units are most effective when combined with Low-E performance glass and argon gas. Where applicable, larger spacer widths are encouraged as this increases the performance of the unit.

Comprehensive performance data on available Insulcool glass types and makeups can be downloaded at www.coolingbros.com.au/media.



#### **FEATURES**

Extensive range of options available using Viridian, Guardian and St Gobain glass types

Compatible with Low E and performance glass

Air or argon filled

Reduces outside noise

Excellent solar and thermal control

Lower air-conditioning and heating costs

#### **APPLICATIONS**

Residential & commercial applications where reductions in heating & cooling loads are high priority

#### MAXIMUM SIZE SPACER THICKNESS

2500 x 4500mm 6mm to 20mm

#### SPACER TYPE

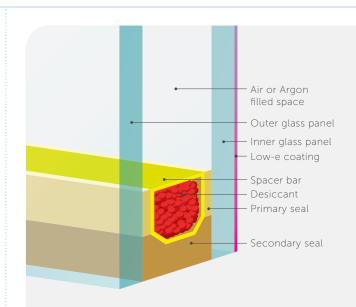
Aluminium, black or silver colour options

#### **SECONDARY SEAL**

Polysulphide or Structural Silicone

#### **GLASS TYPES**

CLEAR | TINTED | LOW E | LOW IRON



#### TYPICAL INSULCOOL CONSTRUCTION

#### PRIMARY SEAL

Consists of hot melt butyl or PIB. The primary seal creates the main barrier for preventing moisture penetration.

Aluminium or plastic, InsulCool spacers are filled with moisture absorbing desiccant to prevent condensation.

#### SECONDARY SEAL

Available in polysulphide, hot melt or structural silicone, the secondary seal is the structural component of the unit, and holds the panes of glass together.

HOW TO SPECIFY: InsulCool units are available in almost endless combinations of glass, spacer thickness, colours, seal types and shapes. For an InsulCool solution tailored to suit your energy requirements, please call us on (08) 6104 1777, and ask to speak with a glass consultant.



### GLAS-STAX DOORS

Glas-Stax Doors provide weather resistant glass walls, utilising a frameless glass configuration to maximise vision and space.



The Glas-Stax Door system is the perfect complement to the design of any commercial or residential project, and sets a new benchmark for glass wall design. The elegant simplicity of this product delivers uninterrupted views and a sophisticated architectural style.

Providing a unique way of enjoying the outside lifestyle indoors, the Glas-Stax Door system is top supported with structural headwork for extra strength. Glas-Stax are available in a variety of stacking arrangements, designed to maximise available space with a minimal footprint.

#### STACKING CONFIGURATIONS

A feature of Glas-Stax is the design flexibility of track layout. Some typical layouts are shown below, however there are many others are available to suit any application.







#### **CENTRE STACK**

- Single trolley suspension, folding panels hinged in 'floating pairs'
- Single track keeps overhead support simple
- Panels stack 50% inside and 50% outside
- Floor guide strongly recommended Floor guide is required
- and weather certification

#### END FOLD

- Single trolley suspension, folding panels hinged in 'floating pairs'
- Single track keeps overhead support simple
- Panels stack perpendicular to the main track
- Supports higher level AS2047 wind Supports higher level AS2047 wind and weather certification

#### SIDE STACK

- Dual trolley suspension with individual sliding panels
- High weight and windload capability
- Panels can stack inside or outside
- Panels stack perpendicular to the main track
- No floor guide is required

#### **FEATURES**

Tapered looks and distinctive, clean, sharp lines

85 x 40mm rail top and bottom, mechanically fixed to glass for strength & rigidity

Suitable for 10 - 19mm glass

Anodised or powdercoated finishes

Weather tested by NATA laboratory up to 200pa AS2047

#### **APPLICATIONS**

Architectural projects which require custom frameless glass door solutions

AXIMUM	SIZE	THICKNESS

On application 10mm to 19mm

#### **GLASS TYPES**

CLEAR | TINTED | LOW E | LOW IRON |



**HOW TO SPECIFY:** 

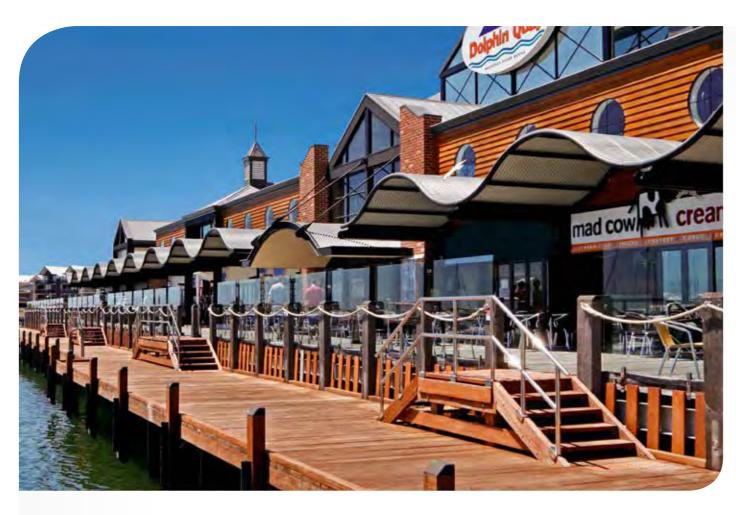
Select product name [ Cooling Brothers Glas-Stax Doors ]

Select product thickness [10mm to 19mm]



Select glass type [ Clear, Tinted, etc. ]







## • OCEANBREAK™

The Ocean Break<sup>™</sup> Marina System is a definitive design for both patrons and clientele looking to enjoy waterfront developments, without wearing their lunch.

With Perth ranking as the third windiest city in the world, we recognised the need in the marketplace for a windbreak system that could be installed in marinas and waterfront developments to deflect the 'Fremantle Doctor', without obstructing the beautiful coastline views Western Australia is renowned for.

Ocean Break™ is specifically designed to AS1288 standards to achieve high levels of wind and spray protection using toughened glass panels. Paired with 316 Marine Grade Stainless Steel, Ocean Break™ is an ideal solution for any marina or waterfront development.



#### REDUCE RESIDUE BUILDUP WITH ENDUROSHIELD PROTECTIVE COATING

EnduroShield® is a non-stick, protective coating that reduces the porosity of the glass surface, creating an easy-clean coating that protects against staining and etching from salt, mineral deposits and 'hard' water.

Enduroshield is recommended for use with Ocean Break Systems, and any other external glass subjected to prolonged water exposure. Extensive testing has proven EnduroShield to last beyond 10 years, enabling a genuine 10-year limited warranty on all new glass surfaces.

Call (08) 6104 1777 and ask to speak with one of our glass consultants for more information.

#### **FEATURES**

Custom designed and engineered to wind speed requirements

Grade A Safety Glass

316 Marine Grade Stainless Steel Fittings

Combine with ImagInk ceramic printing to display marina or waterfront information

#### **APPLICATIONS**

Marinas, Waterfront walkways, Beachside Developments

MAXIMUM SIZE

**THICKNESS** 

2500 x 4500mm\*

12mm to 19 mm\*

\*Ocean Break is manufactured according to wind load requirements. Please contact us on (08) 6104 1777 to determine the relevant Ocean Break thickness and panel size for your project.



**HOW TO SPECIFY:** 

Select product name

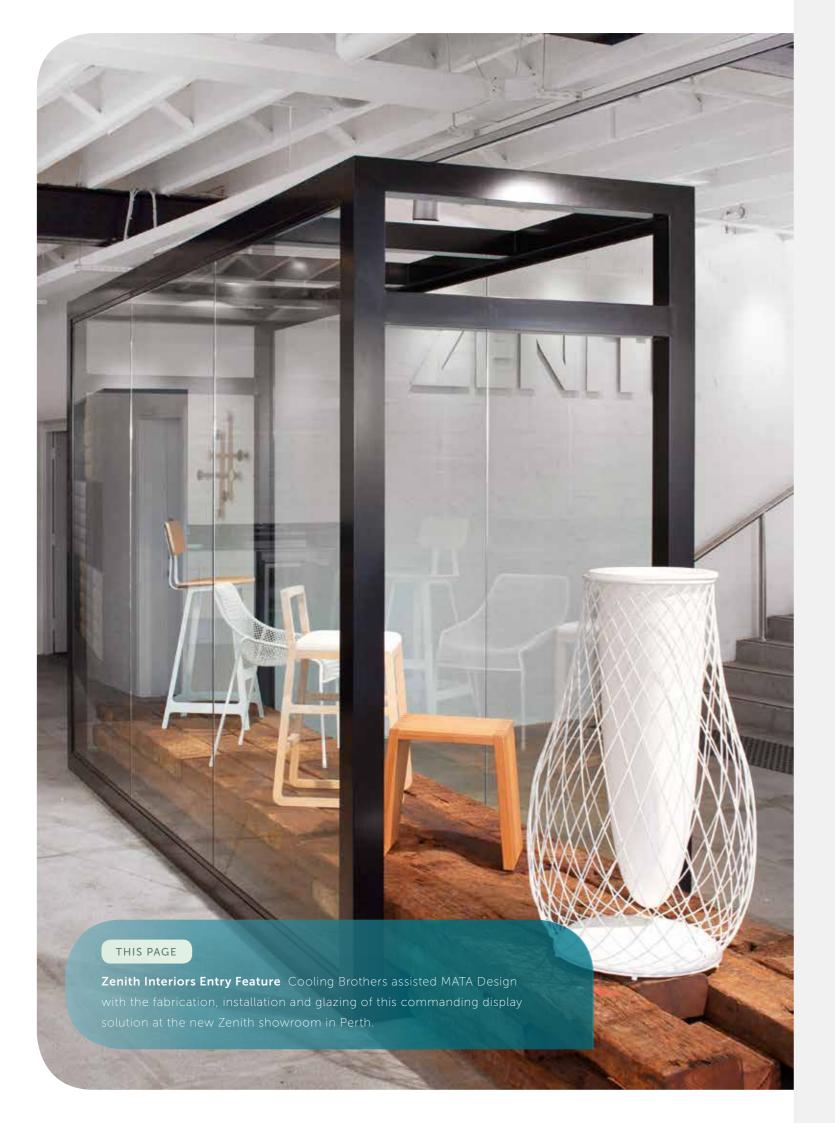
[ Cooling Brothers Ocean Break ]

Select product thickness\* [ 12mm to 19mm toughened ]



Select glass type [ Clear, Tinted, Low Iron etc. ]











961 Abernethy Road, High Wycombe Western Australia 6057

**P** 08 6104 1777

E info@coolingbros.com.au

**W** www.coolingbros.com.au