Customer Fact Sheet

Getting to know Custom Laminates

What is laminated glass?

Laminated glass is a Grade A safety product made by laminating two or more panels of glass with a special chemical interlayer. After preparation in a sterile, climate-controlled environment, the glass and interlayer are bonded together by a vacuum heat process to form a single piece, suitable for various architecturally and structurally demanding applications.

Many different laminated glass 'make-ups' are possible. An assortment of glass and interlayer types can be combined to satisfy a range of requirements, including energy, acoustic, decorative, strength and safety. For structural and strength applications, both panels can be either heat strengthened or toughened, or combined with thicker and stronger interlayer types.

Laminated glass offers special characteristics over regular glass

Increased solar / thermal performance

Solar control increases comfort and energy savings

Increased acoustic performance

Enjoy greater sound and noise reduction

Flexible design options

Embedded colours, patterns or shading

Security & safety

Protection against crime, accidental breakage, fire, storms and cyclones

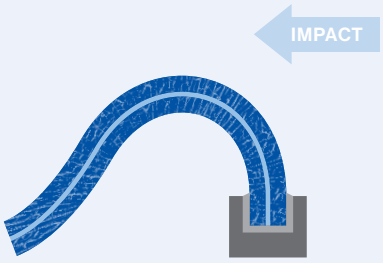
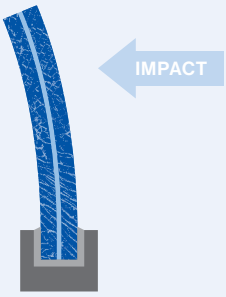
Increased strength

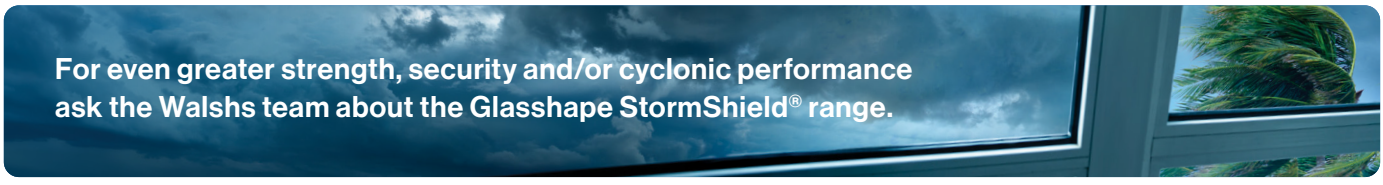
Useful for barriers and structures (balustrades, canopies, glass flooring)

Depending on application, laminated glass is available as a stock product or made to order as a custom laminate.

Interlayer types – and why they matter

There are two primary types of interlayer. While both offer enhanced strength and insulating properties, they can vary significantly with regard to structural integrity.

	PVB Toughened Custom Laminate	SGP Toughened Custom Laminate
Typical uses	Used for strength, safety and acoustic management in standard applications	Primarily used where glass independently forms a barrier or structure that may impact human safety
Interlayer type	PolyVinyl Butyral (PVB) thermoplastic resin – *Eastman Saflex* and *Eastman Vanceva*	Colourless and transparent ion-polymer film – *Kuraray SentryGlas™* (SGP)
Benefits	Good safety, noise insulation, transparency, and UV resistance properties	Superior structural integrity and edge stability, excellent UV and moisture resistance Twice the load-bearing capacity, a quarter of the bending deflection, and five times the tear strength of PVB Less likely to turn yellow after prolonged exposure to sunlight
Characteristics after a destructive impact	 Glass broken and shards contained Integrity retained, however deflection and/or bend will occur when unsupported	 Glass broken and shards contained Structure and strength retained with minimal deflection or bend (within defined product loads)
Considerations	Poor water resistance and may delaminate in a humid environment	Required by code in frameless balustrades, many skylights, suspended or trafficable glass flooring and cyclone-rated glazing
Product offering	Walshs Invaidershield	Walshs Viewguard Laminate



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