



**A material shows emotion**  
StoVentec Glass

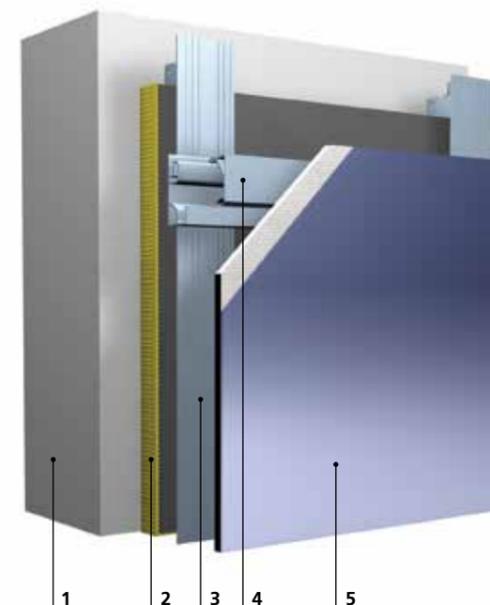


## Rainscreen Cladding

StoVentec Glass is a ventilated rainscreen cladding system consisting of a glass faced composite panel, thermal insulation and sub-construction. Tempered safety glass is adhered to a carrier board to produce an inseparable composite panel, which protects the stainless steel, aluminium sub-construction from rain. A circulating air layer is formed between the hung panel and the mineral wool insulation, mounted directly onto the substrate. Insulation on the outside of the construction keeps the wall warm and reduces the risk of condensation and minimises temperature fluctuations.

This breathable system offers thermally efficient insulation, minimising heating and air-conditioning costs, and the structural frame of the building stays warm and dry.

The ventilated façade is available in many panel sizes and different surface colours and finishes, offering great aesthetic potential for façade designs on new-build or refurbished buildings.



### Properties of StoVentec Glass

- For internal and external use
- Huge design potential - colours and shapes
- Simple and quick installation in all weathers
- BBA accredited
- Tested against impact, fire and smoke emission, and bomb blast
- Technically superior composite construction on an inert, unique backer panel
- Bespoke panel formats available in sizes up to 4.5m long

- 1 Substrate
- 2 Thermal insulation
- 3 Sub-construction
- 4 Agraffe profiles
- 5 StoVentec Glass Panel

## For lovers of individuality

StoVentec Glass screen printed and used in the interior of a building guarantees a continuous material flow from exterior to interior



Sparkasse Darmstadt ImmobilienCenter, Germany

The StoVentec Glass system comprises bespoke panels, manufactured individually, offering a wide range of shapes and an even more impressive range of colours.

Part of our manufacturing process includes the fusing of colours on to the back of the glass, before the toughening process. The colour melts into the glass providing permanent coloured glass panels that will not wear, scratch, fade or incur water damage. Sto can also match to almost any colour.

Screen printing offers additional design possibilities - patterns, illustrations, photographs or corporate logo's - these can be applied to the rear side of the glass panels, expanding the scope for individuality.

Choose single-colour, multi-colour or metallics, for your individual design, with a gloss, reflective or non-reflective finish.

### Benefits of glass

- Versatile interior and exterior application possible
- Wide range of shapes and colour spectrum
- Wide range of surface finishing possibilities
- Ecologically compatible building material
- Durable and easy to clean
- Robust and weather resistant
- Reflects its surroundings





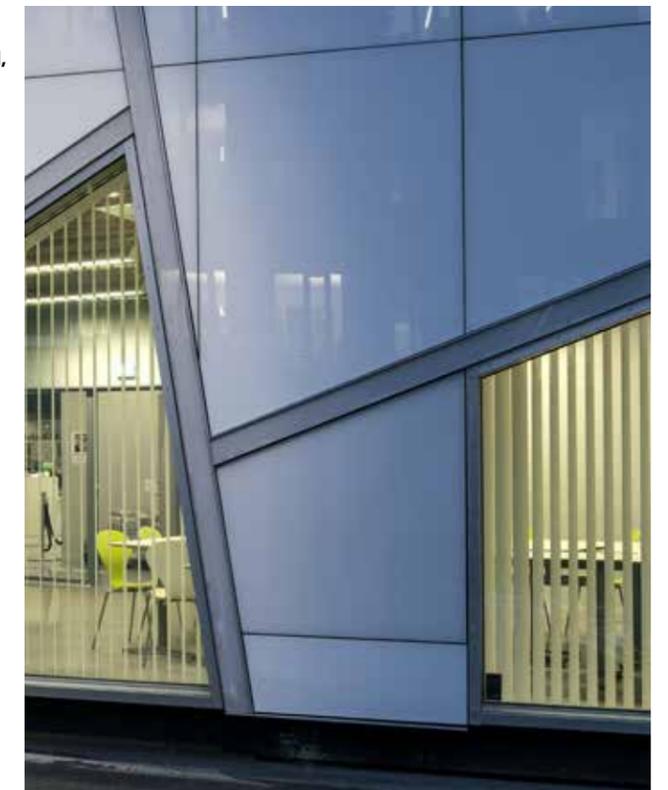
## Shapes follow inspiration

Glass is not only a remarkable material in terms of appearance, but also due to its design flexibility. Panels can be supplied in square, rectangular, trapezium and parallelogram shapes, and glass panels can be cut to incorporate lighting or control panels.

Multiple glass panels can also be bonded to the same backing board to create stripes or patterns.

The non-visible sub-construction results in an open-jointed grid, with no visible frames, rails or fixings.

**Sogn og Fjordane  
Kunstmuseum, Norway - a  
network of sharply-defined,  
angled glass panels which  
draw inspiration from a  
nearby glacier**



## Beautiful shell, strong core

**Sto's innovative sub-construction:**  
Material combination of stainless steel and aluminium - complete solution from one supplier

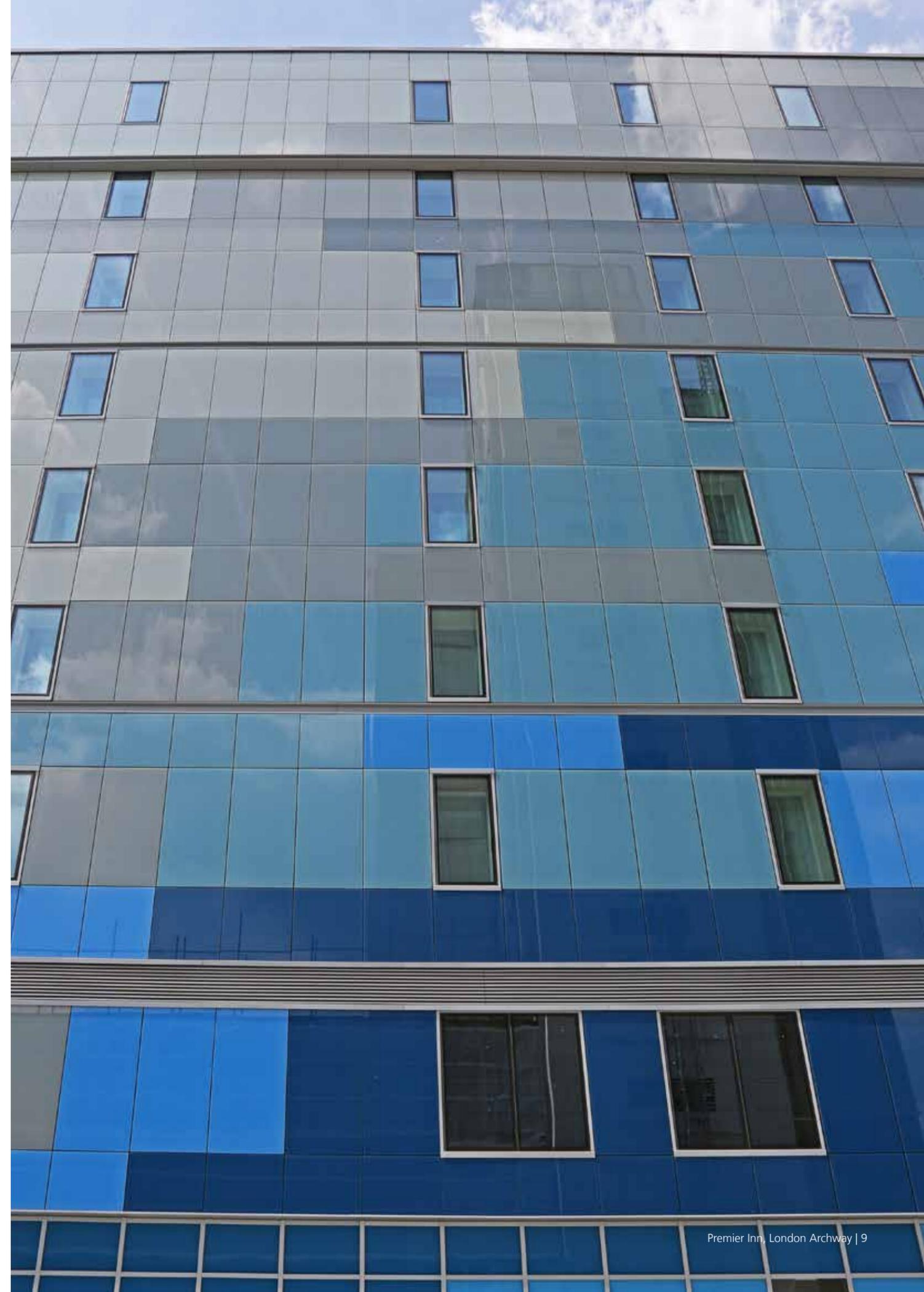


The StoVentec ventilated rainscreen cladding system utilises both aluminium and stainless steel for the sub-construction. This provides a strong and durable system, which is also light-weight and comparatively inexpensive, but ultimately fulfills the thermal performance required. The sub-construction is also adjustable for levelling uneven substrates.

Stainless steel brackets do not require thermal breaks to avoid cold bridges and less insulation can be used to achieve the same u value. Sto's sub-construction has been tested and certified to the high Passivhaus thermal performance standard.

### The StoVentec System

- Can be mounted onto virtually all substrates
- 6mm or 8mm toughened glass panel
- 4mm adhesive layer, carrier board and glass panel are bonded together to form an inseparable composite board
- 20mm StoVentec backing board made with 96% recycled glass
- Panel sizes up to 1250 x 4500mm; 1500 x 3750mm or 2200 x 2600mm
- Glass panels factory produced complete with horizontal "agraffe" fixing rail ready to hang on-site
- Panels are hung from the sub-construction on-site - fast and simple installation, regardless of weather conditions





## Glass sets a precedent

StoVentec Glass is the only UK glass rainscreen system with a BBA certificate for all standard applications. This includes assessment of wind loads, how the system performs under intense heat, safety and durability.

Rigorous testing under extreme conditions has proved that StoVentec Glass meets NHBC standards and Building Regulations - including fire spread - and has a minimum certified expected life of 30 years.

The toughened glass panels Sto manufactures will not fail as a result of thermal stress due to solar radiation. In the event a panel is broken from physical impact, the composite construction ensures the shattered fragments of toughened glass remain fully bonded to the backing board, avoiding risk from flying fragments of glass. Such properties are critical in areas of public access

The system is fully warranted.

### Impact and Blast Testing

StoVentec Glass is suitable for specification within high traffic areas. The system has passed all industry standard soft-body and hard-body impact tests, in accordance with BS EN 356. StoVentec Glass currently holds the highest impact test rating of all glass rainscreen cladding systems in the UK and Europe.

The system has also passed stringent bomb blast tests, demonstrating its suitability for use in high profile public spaces such as airports and train stations. In accordance with ISO 16933 'Glass in Building - Explosion resistant security glazing', the results were outstanding and non-comparative.

StoVentec Glass proves to be the safest and most robust performing rainscreen cladding system available - quality and durability guaranteed.



StoVentec Glass panels remain intact with little or no spalling after impact and explosion simulation

## Sustainability is the best policy

Sustainability and energy efficiency are as much a part of future-oriented planning as a solid architectural concept. Sto's Building with Conscience mission influences the materials we use to help us gain BREEAM credits.

Glass façades are extremely hard-wearing and weather-resistant. The carrier boards for the panels are manufactured using expanded glass granulate, an environmentally friendly material that is produced from 96% recycled glass.



Streatham Hub, London





## Together we can achieve the vision

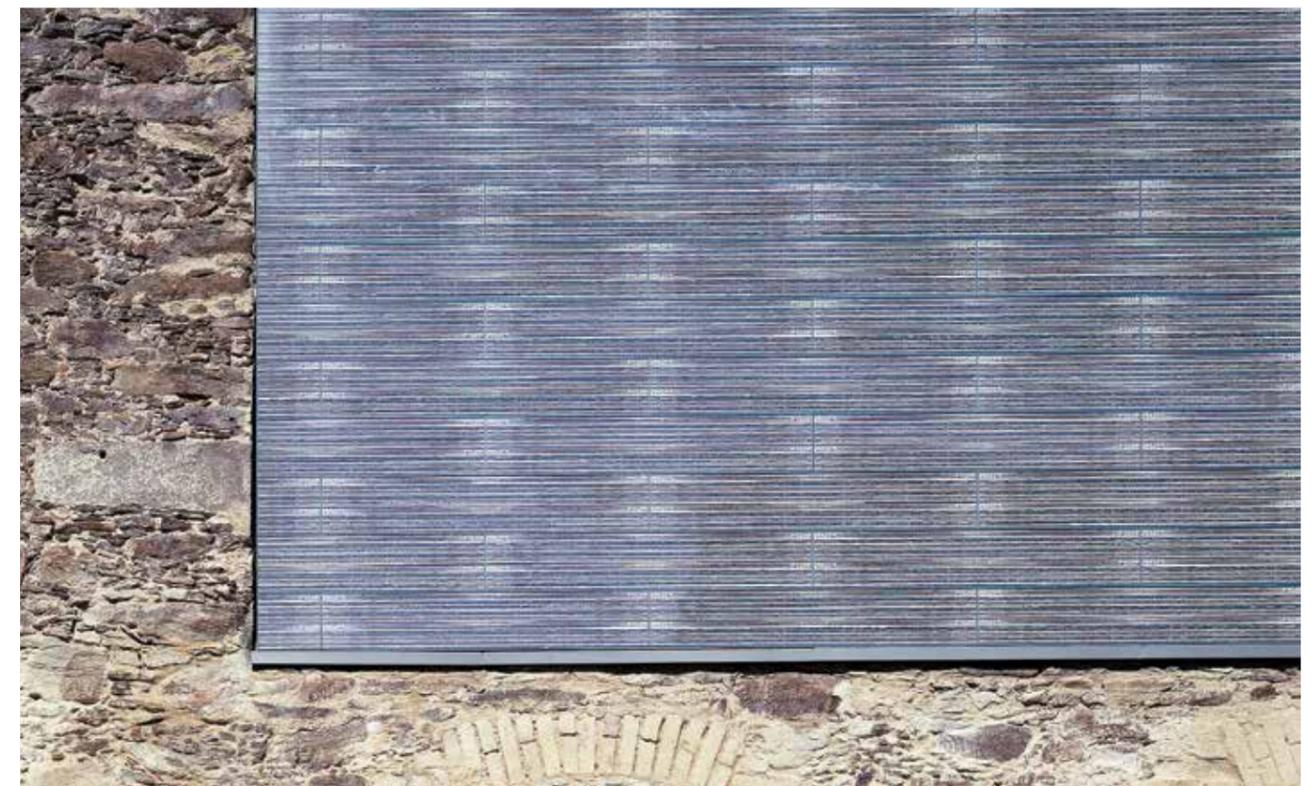
**To the millimetre: StoVentec Glass panels are cut to their individual format**

Sto's technical and design team offer full support from the initial project vision through to site construction and handover.

You will receive a bespoke system, manufactured to your requirements, including sub-construction design, joint detailing and penetrations, and advice on the most cost effective way to achieve your design.

Experienced Technical Advisors are based nationally and provide pre and post on-site support. Fully trained StoVentec Glass installers ensure all rainscreen cladding systems are installed to the highest quality and performance.

Exceptional customer support from an innovative company.



Panels were arranged in a stretcher bond and a photo of horizontally layered glass panels was printed onto them.  
Cultural Centre, Germany  
Architect: Brückner & Brückner

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