



Building with conscience.

# StoVentec<sup>®</sup> Glass

Ventilated rainscreen cladding systems

Facades



Interiors



StoVentec<sup>®</sup> Glass is a complete single source back-ventilated rainscreen cladding system, designed and engineered by Sto<sup>®</sup>. All exterior wall components, from the air & water-resistive barrier to sub-construction, insulation and exterior cladding, are designed to work together. StoVentec Glass provides those aesthetic options that can only be created with glass.



# A complete rainscreen system, from one manufacturer

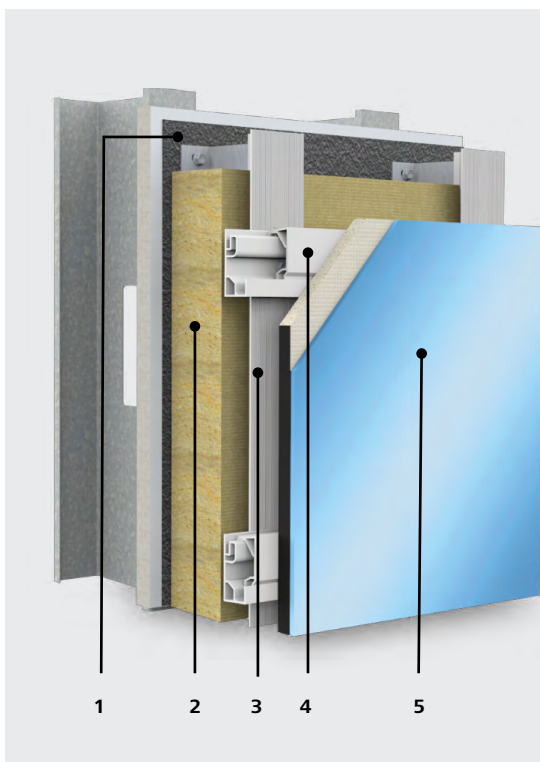
StoVentec Glass is a complete ventilated rainscreen cladding system backed by a single-source system warranty. It has been carefully tested and engineered for North American markets. The outer rainscreen is made of thick, tempered safety glass permanently bonded to StoVentec® Carrier Board, creating a strong, tough composite panel that looks great while protecting the underlying wall from rain and weather. A StoVentro™ stainless or ZAM® galvanized steel and aluminum sub-construction supports the glass composite panel and creates space for mineral wool insulation and a circulating air layer that promotes rapid drying.

Circulating air stays where it belongs thanks to a Sto AirSeal® fluid-applied air & water-resistive barrier, which also provides a secondary line of defense against moisture. Mineral wool insulation board adds sound control and thermal insulation. StoVentro Sub-construction is durable, adjustable and minimizes thermal short-circuits.

StoVentec Glass looks fabulous on the outside, lowers heating and air-conditioning costs, and contributes to the highest levels of occupant comfort. Hard, durable and attractive, StoVentec Glass creates unique design possibilities on new construction or restoration projects.

## StoVentec Glass

- Tailored panel formats available up to nearly 15 feet long
- Wide range of light-stable colors
- Custom printed aesthetics
- Code compliant, fully tested against fire, water and impact
- Blast resistant
- Simple, quick installation in all weathers
- Exterior or interior use
- Single source warranty



## System Components

- 1. StoGuard® Air & Water-Resistive Barrier System** – Featuring Sto AirSeal®, the StoGuard® system provides seamless and fully integrated air and moisture control.
- 2. Thermal Insulation** – Owens Corning Thermafiber® RainBarrier® 45 mineral wool made of non-combustible fiber. Custom insulation thicknesses are available to meet design thermal requirements.
- 3. StoVentro Sub-Construction** – An engineered system consisting of StoVentro Brackets with vertical StoVentro T-Profiles to provide the structural link between the facade and supporting wall construction.
- 4. StoVentro Agraffe Profiles** – Part of the StoVentro sub-construction system, StoVentro Agraffe Profiles allow for quick and simple onsite installation of glass panels.
- 5. StoVentec Glass Panel** – A composite panel with opaque glass fully bonded to StoVentec Carrier Board; a backing board made of 96% recycled glass.









# For lovers of individuality

**Screen printed StoVentec Glass lets architects employ beautiful, one-of-a-kind images that stand the test of time. Digital print files allow uniquely designed panels to be easily replicated or replaced.**

StoVentec Glass panels are individually manufactured in custom sizes, shapes and colors. Part of the manufacturing process involves fusing colors directly onto the glass, before the toughening process. Colors melt into the back side of the glass, creating permanently colored images that will not wear, scratch, fade or incur water damage.

Patterns, graphic images, photographs and company logos can be applied to the glass panels, creating the ultimate expression of individuality.

Design with custom print or solid colors, bright colors or earth tone, reflective or matte finishes. The choice is yours.

## Benefits of glass

- Durable and easy to clean
- Robust and weather resistant
- Reflects its surroundings
- Wide range of color and image possibilities
- Matte or glossy surface finish









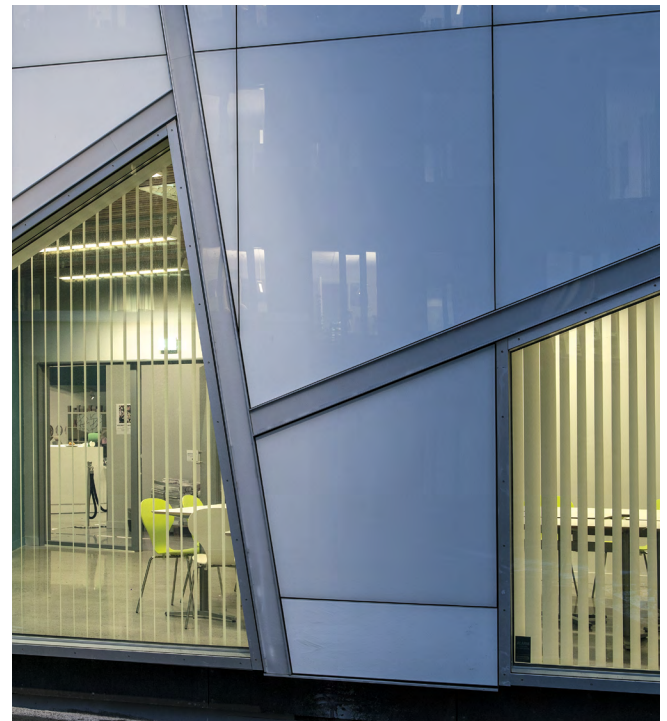


# Shapes follow inspiration

The design flexibility of StoVentec Glass extends the remarkable appearance possibilities of glass facades. Panels can be supplied in square, rectangular, trapezoidal and parallelogram shapes. Glass panels can be designed to incorporate LED lighting and other effects.

Multiple glass panels can be bonded to the same StoVentec Carrier Board, to create stripes or patterns.

Non-visible StoVentec Sub-construction results in an open-jointed grid, with no visible frames, rails or fixtures.



**Sogn og Fjordane Kunstmuseum, Norway**

A network of sharply-defined, angled glass panels which draw inspiration from a nearby glacier





Sogn og Fjordane Kunstmuseum | Norway





# Beautiful beneath the skin

The StoVentec Glass system begins with a Sto AirSeal fluid-applied air & water-resistive barrier. This tough, resilient barrier is continuously bonded to sheathing, masonry or wood base walls, and provides outstanding crack-bridging properties. It is code compliant per ICC-ESR 1233 for use behind all cladding materials.

Both stainless or ZAM® galvanized steel and aluminum are used in StoVentec Sub-construction. This provides a strong and durable system that is lightweight, cost-effective and thermally efficient. Sub-construction designs certified to the Passive House Institute thermal performance standard are available. StoVentec Sub-construction is adjustable for leveling uneven substrates.

It all comes down to performance. In addition to all of the fire, mechanical and water resistance testing required for North American code compliance, StoVentec Glass has passed ISO 16933 blast testing requirements that simulate a car bomb-size explosive detonating 15m away. This is performance you can trust.



Sto AirSeal - shown in charcoal

## Sto engineered wall system

- StoVentec stainless or ZAM® galvanized steel and aluminum sub-construction
- StoGuard fluid-applied air & water-resistive barrier system featuring Sto AirSeal
- Owens Corning Thermafiber® RainBarrier® 45 mineral wool
- Factory-manufactured StoVentec Glass Panels

## StoVentec Glass System Testing

- Fire Testing: NFPA 285, CAN/ULC-S134, ASTM E119, ASTM E84 – Meets acceptance criteria for use on multi-story noncombustible construction, Types I, II, III and IV.
- Wind Load, ASTM E330 – Ultimate wind load capacity -288 lb/ft<sup>2</sup> (-13.8 kN/m<sup>2</sup>)
- Rainscreen, AAMA 509 – W1 water penetration resistance, V2 ventilation rating
- Air-Blast Resistance test: ISO 16933:2007 - 10kg TNT at 6m, 100kg TNT at 25m, 100kg TNT at 15m
- Sto AirSeal – 500% Tensile Elongation, ASTM C1305 Low Temperature Crack Bridging (pass), International Building Code compliance per ICC-ESR 1233









# Creating success together

## Made to measure

You will receive a tailored system, with StoVentec Glass Panels manufactured specifically for your project. Sub-construction, air & water-resistive barrier, insulation and cladding all designed to work together, engineered and tested as a complete system.



Innovation Outpost | Texas



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

## The StoVentec Glass System

- Suitable for use on all code compliant base walls
- 6mm or 8mm tempered glass panels
- StoVentec Carrier Board and glass panel permanently bonded together
- Custom manufactured glass panels are complete with a horizontal StoVentec Agraffe Profile for simplified installation
- Panel sizes up to 1250 x 4500mm; 1500 x 3750mm or 2200 x 2600mm
- Fast and easy on-site panel installation regardless of weather conditions







# Inspiration favors the open mind

With Sto, your creative exploration can take you anywhere. Our proven products give you unmatched freedom and the ability to achieve your vision in any color, any form, any texture, any material.

StoVentec rainscreen systems provide a wide range of aesthetic options and price points from glass, to stone, wood, mosaic and any combination in between. They bring form together with function in a complete, single source system, allowing you to create wall systems that are visually stunning, durable and thermally efficient.

For example, imaginative design using StoVentec Glass, with the smooth, hard, reflective look of glass, can be accentuated with an adjacent StoVentec Render system. Featuring a wide range of color and texture options, StoVentec Render extends design possibilities, and helps you create a look that is uniquely appealing.

Creativity Begins. **Sto Finishes.**®



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