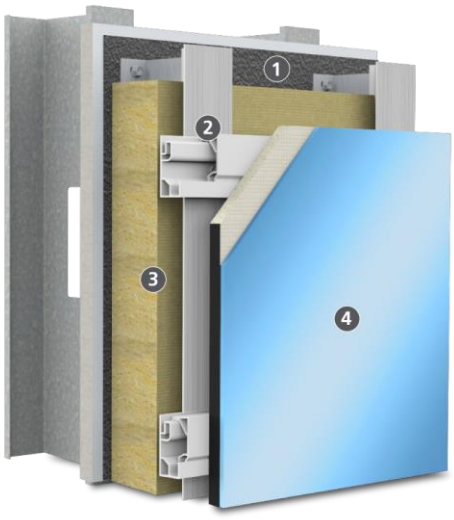
System Bulletin

Building with conscience.

StoVentec® Glass

Rainscreen wall system with opaque glass cladding, continuous insulation and continuous air and moisture barrier



	Structural Back-up Wall (by others): Steel or wood frame with glass mat gypsum sheathing in compliance with ASTM C1177, code compliant OSB or plywood sheathing, concrete or concrete masonry, existing structurally sound, uncoated brick or other masonry wall construction.
1)	Air and Moisture Barrier: Sto AirSeal ®
2)	Sub-construction: Sto Ventro™ Bracket, StoVentro T-Profile
3)	Thermal Insulation: Owens Corning Thermafiber® RainBarrier 45
4)	Pre-fabricated Glass Panel Assembly: StoVentec® Glass Panel Assembly, 62mm – 64mm (2-7/16in – 2-1/2in) *Dimension from face of T-Profile to face of Glass Panel and includes Agraffe Profile to Panel Profile connection dimension* • StoVentro™ Panel Profile, 28.8mm (1-1/8in) • StoVentec® Carrier Board A+, 20mm (13/16in) • StoVentec® Structural Adhesive, ~4mm ~(13/16in) • Glass Panels, 6mm or 8mm thick (1/4in or 5/16in)

System Description

StoVentec Glass is an open joint, drained and back-ventilated rainscreen wall system from a single source that combines superior air and weather tightness with excellent thermal performance and fire protection. It incorporates noncombustible continuous exterior insulation and a continuous air and moisture barrier with StoVentro™ sub-construction and StoVentec Glass Panel to produce an advanced high performance wall assembly.

Uses

StoVentec Glass can be used on interior or exterior residential, commercial, and institutional wall construction.

Features	Benefits
Open joint drained and back-ventilated rainscreen wall design	Excellent moisture control
High density mineral wool insulation	Continuous noncombustible exterior thermal control layer
Fully integrated seamless air and moisture barrier	Compatible air, water, and vapor control layer from a single source
Multiple opaque glass color options and panel sizes without visible attachments	Elegant aesthetics for new build, façade restoration, or interiors
Fire tested in accordance with NFPA 285	Can be used on all types of construction without height limitation[1]

Properties

Weight: glass panel and sub-construction	6mm glass: 33.98 kg/m^2 (~6.96 lb/ft^2) 8mm glass: 38.96 kg/m^2 (~7.98 lb/ft^2)
Insulation combustibility, flame spread	Noncombustible, 0 flame spread, 0 smoke development
Insulation RSI-value (R-value)	0.74 m^2•K / W per 25mm (4.3 ft^2•h•°F / Btu per in)
Pre-fabricated Glass panels	Tempered and heat soaked security glass, fully bonded to a carrier board made of recycled expanded glass granulate

Warranty

Ten year limited warranty

Maintenance

May require cleaning of glass to maintain appearance. Sealants and other façade components must be maintained to prevent water infiltration into or behind the system.

1. Some height restrictions apply based on ultimate wind load resistance of the system (see page 2)

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Precautions and Limitations
Not for use on horizontal or low slope surfaces, below grade, roofs or roof-like surfaces, or in areas of water immersion, pooling or ponding water. For use on vertical above grade walls only.
Structural back-up wall must be level to within 6mm in 3.0m (~¼ in in 10ft)
Pull-out or withdrawal capacity of fasteners into structural wall must be sufficient to resist negative wind loads (with appropriate safety factor as required by applicable building code).
Wind load resistance: structural back-up wall construction must be designed for maximum allowable deflection of L/300, normal to the plane of the wall. Refer to Sto Design Guide and Detail Booklet for wind load ratings.
Insulation board thickness (Standard): 51-178mm (~2-7 in). Thicker insulation available by custom order and with special design and engineering analysis by qualified design professional.
Ventilation cavity depth: 20-50mm (~13/16 - 2in)
Min glass panel size: Portrait Orientation,100 x 250mm (~3-15/16 x 9-13/16 in). Landscape orientation, 250 x 175mm (~9-3/16 x 6-7/8 in) Max 6mm glass panel Height x Width, Portrait Orientation: 100 to 1500mm x 2800mm (~3-15/16 to 4ft 11-1/16in x 9 ft - 2-1/4 in) Max 6mm glass panel Width x Height, Landscape Orientation: 100 to 2800 mm x 1500mm (~3-15/16" to 9 ft 2-1/4in x 4ft 11-1/16in) Max 8mm glass panel Height x Width, Portrait Orientation: 100 to 1250mm x 4500mm (~3-15/16in to 4ft 1-3/16in x 14ft 9-3/16in) Max 8mm glass panel Width x Height, Landscape Orientation: 100 to 3750mm x 1500mm (~3-15/16 to 12ft 3-5/8in x 4ft 11-1/16in)
Joint width between glass panels: 5-12mm (~3/16-1/2in)
Aesthetics: opaque glass color tolerance from approved sample between individual panels and subsequent deliveries: $\Delta E < 2.9$ in accordance with CIELAB color system when viewed at a distance of 3m (~9 ft 10 in).
Refer to specific component product bulletins and packaging for other limitations that apply on use, handling and storage of component materials.

Sustainable Design

Regulatory Compliance and Standards Testing	
IECC, ASTM E2178	Air barrier component complies with 2015 and 2018 IECC Section C402.5 as an air barrier material
ASTM C612	Insulation conforms to applicable standard for board thermal insulation
NFPA 220	Insulation complies with criteria for non-combustibility
ASTM E84	Insulation has 0 flame spread, 0 smoke development
NFPA 285	System meets requirements for use on all types of construction without height limitation (other than height restrictions based on wind load resistance)
AAMA 509	System achieved W1 water penetration rating and V2 ventilation rating
ASTM E330	System tested up to -100 lb/ft^2 (-4.78 kN/m^2) without failure
IBC, IRC, ASTM E 2570	System WRB conforms with requirements of 2015 IBC Section 1408, 2018 IBC Section 1407, and 2015 and 2018 IRC Section R703.9.2
IECC	System meets requirements for continuous insulation and ci R-value requirements for above grade walls of 2015 and 2018 IECC Section 402.2, and contributes to U-value for above grade walls when figuring compliance based on U-factor
Listings/Approvals	NFPA 285 certification listing by Intertek: Design No. Sto/CWP 30-01

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