

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: StoGuard®
2)	Sub-construction: Sto Stainless Steel Brackets, Sto Alumunum T-Profiles (2a), Sto Aluminum Agraffe Rails (2b), and Sto connecting screws and pins
3)	Insulation: Owens Corning Thermafiber®

- RainBarrier 45
- 4) Pre-fabricated Wall Panel: StoVentec Glass Panel

System Description

StoVentec Glass is an open joint 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 Sto's rainscreen sub-structure and opaque glass panel to produce an advanced high performance wall assembly.

Uses

StoVentec Glass can be used in residential or commercial wall construction.

Features	Benefits			
Open joint ventilated	Excellent moisture			
rainscreen wall design	control			
High density mineral	Continuous			
wool insulation	noncombustible exterior			
Failly intermeted	thermal control layer			
Fully integrated	Compatible air, water,			
seamless air and	from a single source			
moisture barrier	from a single source			
Multiple opaque glass	Elegant and attractive			
color options without	exterior wall cladding			
visible attachments				
Fire tested in	Can be used on all types			
accordance with NFPA	of construction without			
285	height limitation ¹			
Properties				
Weight (not including	8.4 lb/ft ² (41 kg/m ²)			
structural back-up wall)				
Insulation	Noncombustible, 0 flame			
combustibility, flame	spread, 0 smoke			
spread	development			
Insulation RSI value per	4.3 ft²•h•°F / Btu			
inch (R-value)	(0.758 m²•K / W)			
Pre-fabricated Glass	Toughened safety glass			
panels	full surface 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 and ceilings only.

Structural back-up wall must be level to within 1/4 inch in 10 ft (6 mm in 3.0 m)

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/360, normal to the plane of the wall. Stud spacing: 16 inches (400 mm) on center maximum. Ultimate wind load resistance: \pm 100 lb/ft² (4.78 kN/m²). Refer to Sto Application Guide for sub-construction details to achieve ultimate loads.

Insulation board thickness: 2-4 inches (50-100 mm). Thicker insulation permitted with special design and engineering analysis by design professional.

Cavity depth: 3/4- 2-3/8 inches (19-60) mm. Greater cavity depth permitted for combustible construction and with special design and engineering analysis by design professional.

Minimum glass panel size: 4 x 12 inches (10 x 30 cm)

Maximum glass panel height (or width): 9 ft - 2-1/4 inches (< 2.8 m) with $\frac{1}{4}$ inch (6mm) toughened standard glass, 14 ft – 9 inches (14.5 m) with 5/16 inch (8 mm) toughened standard glass. Dimensional limits apply in opposing direction. Refer to Sto Application Guide.

Joint width between glass panels: 15/16 – 15/32 inch (5-12 mm)

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 9 ft – 10 in (3 m).

Refer to specific component product bulletins and packaging for other limitations that apply on use, handling and storage of component materials.

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Regulatory Compliance and Standards Testing				
IECC, ASTM E2178	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 imposed by ultimate 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 on the basis of U-factor			
Listings/Approvals	NFPA 285 certification listing by Intertek: Design No. Sto/CWP 30-01			

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