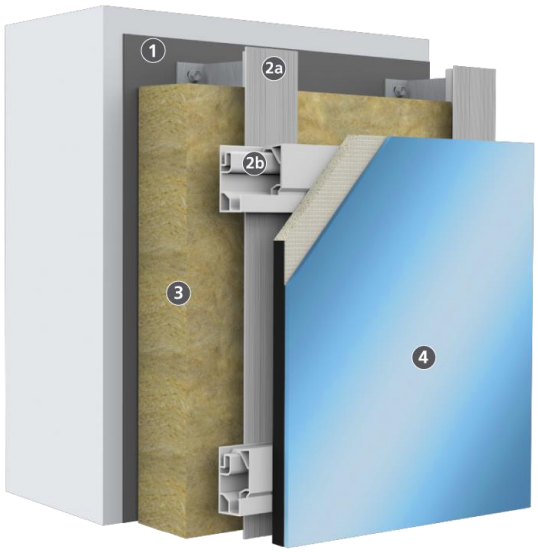
# StoVentec Glass

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

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|---|---|
| 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 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 without visible attachments** | Elegant and attractive exterior wall cladding |
| **Fire tested in accordance with NFPA 285** | Can be used on all types of construction without height limitation[1] |

## Properties

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| **Weight (not including structural back-up wall)** | 8.4 lb/ft$^2$ (41 kg/m$^2$) |
| **Insulation combustibility, flame spread** | Noncombustible, 0 flame spread, 0 smoke development |
| **Insulation RSI value per inch (R-value)** | 4.3 ft$^2$•h•°F / Btu (0.758 m$^2$•K / W) |
| **Pre-fabricated Glass panels** | Toughened safety glass, 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

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| 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 ¼ 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/ft$^2$ (4.78 kN/m$^2$). 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)<br>Maximum glass panel height (or width): 9 ft - 2-1/4 inches (< 2.8 m) with ¼ 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: ΔE < 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. |

## 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 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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