

Product Evaluation

EC138 | 0322

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: EC-138

Effective Date: March 1, 2022

Re-evaluation Date: March 2026

Product Name: StoVentec® Glass Rainscreen System

Manufacturer: Sto Corporation
6175 Riverside Dr. SW
Atlanta, GA 30331
(800) 221-2397

General 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 applied to exterior walls.

Components:

StoVentec® Glass Panel: StoVentec® Glass Panels are opaque, glass-faced, pre-fabricated composite panels. The panels are comprised of opaque tempered and heat-soaked security glass, fully bonded with silicone adhesive to a StoVentec® Carrier Board A+. Extruded aluminum StoVentro agraffe profiles are attached horizontally to the back side of the glass panels with screws.

Limitations:

Wall Bracing: The StoVentec® Glass Rainscreen System is not to be used to resist lateral loads (must not be used as wall bracing or as a shearwall).

Installation:**General Installation Requirements:**

The StoVentec® Glass Rainscreen System must be installed in accordance with the manufacturer's published installation instructions and this product evaluation report. Where differences occur between the installation instructions and this evaluation report, this evaluation report must be followed.

The StoVentec® Glass Rainscreen System must be installed by qualified installers recognized by Sto.

Install the StoVentec® Glass Rainscreen System in accordance with the manufacturer's installation instructions and this product evaluation report.

All fasteners must be corrosion resistant as required by the IRC and by the IBC.

Wall Framing: Wall framing must be minimum 6" deep, 18-gauge steel studs. The steel studs must be spaced a maximum of 16" on center.

Wall Bracing: Wall bracing must be installed as required for the structure.

Wall Sheathing: The wall studs must be fully sheathing with minimum 5/8" thick glass mat faced gypsum sheathing fastened with No. 8 x 1-5/8" drywall screws spaced a maximum of 8" on center.

Substructure System Installation:

Install StoVentro™ brackets and thermal spacers (as required) to a substrate which has been prepared by application of StoGuard Air and Moisture Barrier (AMB). The StoVentro™ brackets are located vertically along the wall studs.

Option 1: Steel Brackets

The StoVentro™ brackets are placed approximately 8" from the top and bottom of the wall and spaced as specified in Table 1. The top and bottom brackets are 2-3/4" x 2" x 14-gauge angles that are 3" long and the intermediate brackets are 2-3/4" x 2" x 14-gauge angles that are 5-1/8" long. Each bracket is secured to the wall studs with two (2) 1/4" x 2" long self-drilling hex head screws.

Option 2: Aluminum Brackets

The StoVentro™ brackets are placed approximately 15" from the top and bottom of the wall and spaced as specified in Table 2. The top brackets are 1.97" x 3.13" x 0.123" thick angles, 5.32" long. The intermediate and bottom brackets are 1.97" x 3.13" x 0.123" thick angles, 3.76" long. Each bracket is secured to the wall studs with two (2) 1/4" x 2" long self-drilling hex head screws.

After the StoVentro™ brackets are installed, if exterior insulation is required, install insulation stick pins to clean, dry, unpainted, and free from any residue StoGuard AMB. Once cured, install insulation. Attach StoVentro™ T-Profiles to StoVentro brackets and fasten with StoVentro Sub-construction screws as required for design pressure and thermal movement.

Extruded aluminum T-profiles, 3-1/2" x 2" x minimum 14-gauge, are installed vertically and secured to each StoVentro™ bracket with two (2) No. 12 x 3/4" self-drilling hex head screws per bracket. Provide a 12mm gap between all T-Profile joints to allow for expansion. The spacing of the T-profiles is specified in Table 1 and in Table 2.

Extruded aluminum StoVentec® agraffe profiles (1.205" wide x 2.561" high x 14-gauge) are installed horizontally. They are secured to the T-profiles with two (2) No. 12 x 7/8" self-drilling hex head screws at each T-profile location. The StoVentec® agraffe profiles are located approximately 8" from the top and bottom of the wall and spaced as specified in Table 1 and in Table 2.

Application of StoVentec Glass to Substructure System:

The StoGuard Air and Moisture Barrier (AMB) within the StoVentec® Glass Rainscreen System must be applied over dry surfaces and out of direct sunlight. The air and moisture barrier should be installed only when the ambient air temperature is greater than or equal to 40 degrees Fahrenheit. Surfaces must be clean, dry, unpainted, and free from any residue that may affect the bonding process. Any surface contaminants must be removed without damaging the substrate surface.

StoVentec glass panels are pre-fabricated panels comprised of 1/4"-5/16" opaque tempered and heat-soaked security glass, fully bonded with silicone adhesive to 13/16" thick StoVentec® carrier board. A+. Extruded aluminum StoVentro™ agraffe profiles (1.126" wide x 2.437" high) are attached horizontally to the back side of the glass panels with No. 12 x 1" self-drilling flat head screws.

Install the StoVentec® glass panels by interlocking the horizontal StoVentec® agraffe profiles attached to the backside of the glass panels with the horizontal StoVentec® agraffe profiles on the structure. Allow for a 10 mm gap at all joints.

Design Pressure:

**Table 1
StoVentro™ Stainless Steel Brackets**

| T Rail Spacing | Bracket Spacing | Agraffe Spacing | Design Pressure |
|----------------|-----------------|-----------------|-----------------|
| 16" o.c. | 40" o.c. | 29-1/2" o.c. | -33.4 psf |

Table 2
StoVentro™ Aluminum Brackets

| T Rail Spacing | Bracket Spacing | Agraffe Spacing | Design Pressure |
|-----------------------|------------------------|------------------------|------------------------|
| 16" o.c. | 24" o.c. | 18" o.c. | -96 psf |
| 16" o.c. | 24" o.c. | 40" o.c. | -56 psf |
| 32" o.c. | 24" o.c. | 18" o.c. | -69 psf |
| 32" o.c. | 24" o.c. | 40" o.c. | -36 psf |

Note: Keep the manufacturer's installation instructions available on the job site during installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.