TDI | Texas Department of Insurance

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Product Evaluation

EC137 | 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-137

Effective Date: March 1, 2022
Re-evaluation Date: Marc 2026

Product Name: StoVentec® Render Rainscreen System

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

General Description:
StoVentec® Render is a 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 Sto finish systems to produce an advanced high performance wall assembly applied to exterior walls. The StoVentec® carrier board is a unique board that combines lightweight and high compressive strength and allows for seamless walls and curved surfaces that can't be achieved with other claddings.

Components:
StoVentec® Carrier Board A+: StoVentec® Carrier Board A+ is a lightweight composite board made of recycled glass granulate for use in the StoVentec® Render Rainscreen® wall system for facades.

StoArmat Classic Plus: StoArmat Classic plus is a ready-mixed, high build acrylic-based plaster material used as a base coat in the StoVentec® Render Rainscreen® wall system.

Sto PAB: Sto Primer/Adhesive-B is a one-component, polymer-modified, cement based, dry powder material used as an adhesive and base coat.

Sto Mesh: Sto Mesh is an alkali-resistant reinforcing mesh used for impact resistance in Sto claddings.

StoPrime® Sand: StoPrime® Sand is used for priming prepared wall surfaces prior to application of Sto Finishes and Coatings.

Sto Finish Coat: Sto Finish coat is available in a wide variety of textures and colors.

Limitations:
Design Pressure: -33.3 psf

Wall Bracing: The StoVentec® Render 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® Render 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® Render Rainscreen System must be installed by qualified installers recognized by Sto.

Install the StoVentec® Render 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™ Stainless Steel 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 each wall stud. The brackets are placed approximately 8" from the top and bottom of the wall and one at the mid span. The top and bottom brackets are 2-3/4" x 2" x 14-gauge angles that are 3" long and the midspan 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 and a 5/8" diameter washer.

After 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-/L-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 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.

Application of StoVentec Render to Substructure System:
The StoGuard Air and Moisture Barrier (AMB) within the StoVentec® Render 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.

Install 1/2" thick StoVentec® Carrier Board A+, in a running bond pattern, secured to the vertical T-profiles with No. 12 x 1" self-drilling flat head screws staggered and spaced 6" on center through the panel and into the vertical T-profiles. Install Sto Edge Protection Profiles at all exposed edges of carrier boards prior to applying Sto Base Coat and Sto Mesh.

After installing the carrier board and edge protection profiles, install Sto Primer/Adhesive-B (PAB) or Sto Armat Classic Plus Base Coat over the board using either spray equipment or a stainless-steel trowel to a uniform thickness of approximately 1/8". Work horizontally or vertically in strips of 40" and immediately embed the mesh (Sto-Glass Fiber Mesh) into the web base coat by troweling from the center to the edge of the mesh. The mesh must be overlapped not less than 2-1/2" at mesh seams and at overlaps of detail mesh. The mesh must be fully embedded so that no mesh color shows through the base coat when it is dry.

Note: If a primer coat is used, apply with a brush, roller, or proper spray equipment over the clean dry base coat or carrier board and allow to dry thoroughly before applying finish.

After the base coat has dried, apply the Sto Finish Coat directly over the base coat (or primer coat). Apply the finish by spraying or troweling with a stainless-steel trowel. Apply the finish in a

continuous application, and work to a wet edge. The finish must be protected from the weather until dry.

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.