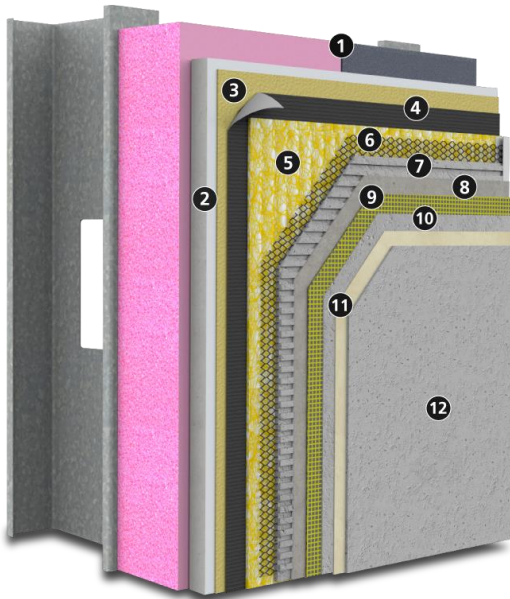


## StoPowerwall® ci Inbound

Portland cement stucco with StoGuard® air and water-resistive barrier, continuous insulation, Sto DrainScreen® advanced cavity wall design, and Sto high performance finishes



1)	Extruded Polystyrene (XPS) Type IV rigid insulation board in compliance with ASTM C578: a. Owens Corning® Foamular® or Foamular® NGX™ b. DuPont™ Styrofoam™ Brand ST-100
2)	Substrate: Glass mat gypsum sheathing in compliance with ASTM C1177 (or building code compliant wood-based sheathing for Type V construction only)
3)	StoGuard® Air and Water-resistive Barrier
4)	Code compliant paper or felt water-resistive barrier
5)	Sto DrainScreen® drainage mat
6)	Code compliant minimum 2.5 lb/yd <sup>2</sup> (1.4 kg/m <sup>2</sup> ) self-furred galvanized steel diamond mesh metal lath
7)	ASTM C926 compliant stucco (as manufactured or listed by Sto Corp.) Scratch Coat and Brown Coat
8)	Sto Crack Defense: Sto base coat with Sto Mesh embedded
9)	Sto primer (optional)
10)	Choose among: <ul style="list-style-type: none"> <li>• Sto Textured Finishes</li> <li>• StoCast Finishes: Wood or Brick</li> <li>• Sto Signature or Sto Specialty Finishes</li> </ul>

System Accessory: StoSeal STPE Sealant for use as an exterior weather seal around wall penetrations, at dynamic joints in wall construction, and as an interior air seal for air barrier continuity

### System Description

StoPowerwall ci Inbound is an energy efficient stucco wall assembly with a continuous StoGuard air and water-resistive barrier and continuous insulation. It combines the strength and durability of traditional stucco with an advanced cavity wall design and Sto high performance finishes.

### Uses

StoPowerwall ci Inbound can be used in residential or commercial wall construction where energy efficiency, superior aesthetics, and air and moisture control are essential in the climate extremes of North America

### Features

Integrally colored factory blended textured finish

Continuous exterior insulation

Impact and puncture resistant

Continuous air and water-resistive barrier

Fully tested, building code compliant

### Benefits

Consistent color and aesthetics increase curb appeal

Energy efficient, reduced heating and cooling costs

Withstands abuse, reduced maintenance

Protects against mold and moisture problems

Peace of mind

### Properties

Weight (excluding sheathing / studs)

< 12 psf (56.6 kg/m<sup>2</sup>)

Assembly Thickness (from exterior stud face)

Nominal 3-<sup>5</sup>/<sub>8</sub> in (92 mm) w 2 in (51 mm) XPS

R-value (insulation)

5 – 10 ft<sup>2</sup>•h•°F / Btu  
(0.88 – 1.76 m<sup>2</sup>•K / W)

Wind Load Resistance

Capable of achieving:  
+65, -48 psf  
(+3.11, -2.29 kPa)

Compliance

- IBC, IRC, and IECC 2018
- ASHRAE 90.1-2019

Construction Types, Fire Resistance

- I-V, NFPA 285 tested for types I-V
- ASTM E119 1 hour rated assembly

### Warranty

Up to 15-year Limited Warranty available on Sto products, depending on options selected

### Maintenance

Requires periodic cleaning to maintain appearance, repair of cracks and impact damage if they occur, recoating to enhance appearance of weathered finish. Sealants and other façade components must be maintained to prevent water infiltration.

## StoPowerwall ci Inbound

Portland cement stucco with continuous StoGuard® air and water-resistive barrier, continuous insulation, Sto DrainScreen® advanced cavity wall design, and Sto high performance finishes

Limitations
Minimum insulation board thickness: 1 inch (25 mm). Maximum insulation board thickness: 2 inches (51 mm). Minimum stucco thickness : ¾ inch (19 mm). Maximum stucco thickness: 7/8 inch (22 mm)
Fire resistance rated assemblies limited to 2 inch (51 mm) maximum insulation board thickness over non-load bearing steel frame.
Wind load resistance: +65, -48 psf (+3.11, -2.29 kPa). Ultimate wind load resistance also depends on sheathing, sheathing attachment, stiffness of supporting construction, and strength characteristics of stucco mix. Test assembly if necessary to verify wind load resistance is in conformance with local code requirements. Design for maximum allowable deflection of L/360.
Cracking can occur in portland cement stucco. Cracking is generally not caused by a material defect in the stucco and can be minimized by following sound design and construction practices such as: proper installation of lath, proper incorporation of stress relief joints in the construction, proper sand gradation for field mixed stucco, proper proportioning of stucco mix ingredients, use of the minimum amount of water in the stucco mix for placement of stucco, avoiding the use of excess water, moist curing of the stucco after it has been applied, and proper sequencing of construction to avoid stresses in the freshly placed stucco.
Efflorescence is a normal occurrence in portland cement-based products and can affect final appearance of finish products.
For use on vertical above grade walls only. Do not use below grade or on roofs or roof-like surfaces.
Insulation material is flammable. Keep away from flame, ignition sources, and high heat (temperatures in excess of 165°F [74° C]). A 15 minute thermal barrier (typically ½ inch drywall) is required by most building codes to separate the insulation from the interior.
Dark or highly saturated finish colors may require added maintenance compared to light or pastel colors.
Air Barrier, insulation board, drainage mat, and base coat materials are not intended for prolonged weather exposure. Refer to component product bulletins for specific limitations involving exposure, use, handling and storage of component materials.

Sustainable Design	
Air Quality and VOC Compliance	
All finish coatings, adhesives, air barrier joint treatments and coatings meet US EPA (40 CFR 59) and SCAQMD (Rule 1113) emission standards	
LEED Credit Eligibility	
System has high potential for LEED and other sustainability program credits based on use of continuous air and water-resistive barrier, continuous insulation, and VOC compliance.	
Regulatory Compliance and Standards Testing	
Refer to ICC ESR 2323, IAPMO ER 382	Stucco base material is in compliance with ASTM C 926 installed at a minimum thickness of ¾ inch (19 mm) in 2 coats to code compliant frame wall assemblies
ICC ESR No. 1233 covering StoGuard Air and Water-resistive Barrier	Complies with 2015, 2018, and 2021 IBC, IRC, and IECC
ASHRAE 90.1-2019 <sup>1</sup>	Complies with Section 5, Building Envelope, air barrier and continuous insulation requirements
ASTM 2357 <sup>2</sup>	Air and Water-resistive Barrier system meets air leakage resistance criteria of $\leq 0.04$ cfm/ft <sup>2</sup> at 1.57 psf (0.2 L/s•m <sup>2</sup> at 75 Pa)
NFPA 285 <sup>3</sup>	Meets flame propagation criteria for use on Types I, II, III, IV construction with up to 2 inches (51 mm) of approved Type IV XPS insulation
ASTM E 119 <sup>4</sup>	Meets requirements for 1 hour rating over non-load-bearing fire-resistance-rated wall construction

1. *Energy Standard for Buildings Except Low-Rise Residential Buildings*
2. *Standard Test Method for Determining Air Leakage of Air Barrier Assemblies*
3. *Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components*
4. *Standard Test Methods for Fire Test of Building Construction and Material*

For complete information refer to [www.stocorp.com](http://www.stocorp.com)

<b>Sto Corp.</b> 3800 Camp Creek Parkway Building 1400, Suite 120 Atlanta, GA 30331  Tel: 404-346-3666 Toll Free: 1-800-221-2397 Fax: 404 346-3119  <a href="http://www.stocorp.com">www.stocorp.com</a>	<b>SB - 6200</b> Revision: 005 Date: 05/2023	<b>Attention</b>  Sto products are intended for use by qualified professional contractors, not consumers, as a component of a larger construction assembly as specified by a qualified design professional, general contractor or builder. They should be installed in accordance with those specifications and Sto's instructions. Sto Corp. disclaims all, and assumes no, liability for on-site inspections, for its products applied improperly, or by unqualified persons or entities, or as part of an improperly designed or constructed building, for the nonperformance of adjacent building components or assemblies, or for other construction activities beyond Sto's control. Improper use of Sto products or use as part of an improperly designed or constructed larger assembly or building may result in serious damage to this product, and to the structure of the building or its components. <b>STO CORP. DISCLAIMS ALL WARRANTIES EXPRESS OR IMPLIED EXCEPT FOR EXPLICIT LIMITED WRITTEN WARRANTIES ISSUED TO AND ACCEPTED BY BUILDING OWNERS IN ACCORDANCE WITH STO'S WARRANTY PROGRAMS WHICH ARE SUBJECT TO CHANGE FROM TIME TO TIME.</b> For the fullest, most current information on proper application, clean-up, mixing and other specifications and warranties, cautions and disclaimers, please refer to the Sto Corp. website, <a href="http://www.stocorp.com">www.stocorp.com</a> .
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