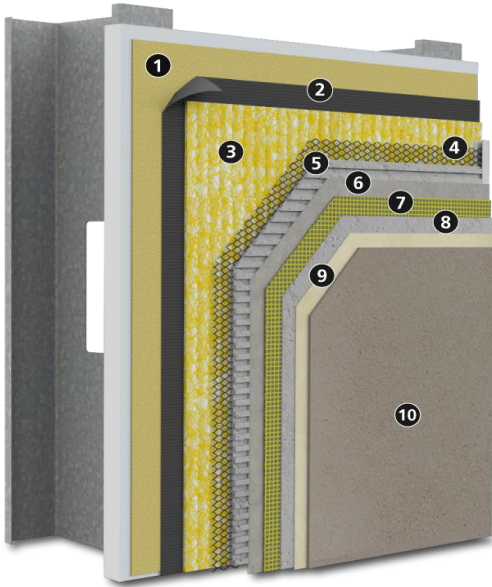


StoPowerwall® DrainScreen®

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



Substrate: Glass mat gypsum sheathing in compliance with ASTM C 1177, building code compliant wood-based sheathing (plywood or OSB), concrete, or concrete masonry (CMU)

1)	StoGuard® Air and Water-resistive Barrier
2)	Code compliant paper or felt Water-Resistive Barrier
3)	Sto DrainScreen drainage mat
4)	Code compliant minimum 2.5 lb/yd ² (1.4 kg/m ²) self-furred galvanized steel diamond mesh metal lath or Structalath SFCR Twin Track 2.5 self-furring welded wire lath
5)	ASTM C926 compliant stucco scratch coat (as manufactured or listed by Sto Corp.)
6)	ASTM C926 compliant stucco brown coat (as manufactured or listed by Sto Corp.)
7), 8)	Sto Crack Defense (optional): Sto Mesh Reinforcement (7) embedded in Sto Base Coat (8)
9)	Sto Primer (optional)
10)	Choose among: <ul style="list-style-type: none"> • Sto Textured Finishes • Sto Custom Cast Finish: Wood or Brick • Sto Signature Series or Sto Specialty Finishes

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 DrainScreen is a drainable stucco wall assembly with code compliant StoGuard air and water-resistive barrier system and Sto DrainScreen advanced cavity wall design. It combines the strength and durability of traditional stucco with StoGuard and Sto DrainScreen water protection and Sto high performance finishes.

Uses

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

Features

Benefits

Integrally colored factory blended Sto textured finishes, StoCast finishes or Sto Specialty finishes	Consistent color and aesthetics increase curb appeal
StoGuard air and water-resistive barrier system	Fully compatible, code compliant air and water-resistive barrier system
Impact and puncture resistance	Withstands abuse, reduced maintenance
Sto DrainScreen advanced cavity wall design	Promotes drainage and drying; complies with codes that require a drainage cavity beneath stucco
Optional Sto Crack Defense	Resists stucco cracking

Properties

Weight (excluding sheathing / studs)	< 12 psf (56.6 kg/m ²)
Assembly Thickness (from outer face of sheathing)	Nominal 1 inch (25 mm)
R-value (from outer face of sheathing)	0.84 ft ² •h•°F / Btu (0.148 m ² •K / W)
Wind Load Resistance	Capable of achieving: +65, -48 psf (+3.11, -2.29 kPa)
StoGuard air and water-resistive barrier system code compliance with StoGuard Detail Components	<ul style="list-style-type: none"> • IBC and IRC (2015, 2018) • ASHRAE 90.1-2019
Construction Types, Fire Resistance	<ul style="list-style-type: none"> • For use on all types of construction • ASTM E119 hourly rated assemblies

Warranty

10-year Limited Warranty when used with Sto Crack Defense

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.

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Limitations
Fire resistance rated assemblies generally require 7/8 inch (22mm) Portland cement stucco over non-load bearing steel frame. See ICC ESR 2323, IAPMO ER 382, and other Sto listed ASTM C926 compliant stucco evaluation reports, for additional fire-resistance-rated assemblies.
Wind load resistance: +65, -48 psf (+3.11 to -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 installed over stucco.
For use on vertical above grade walls only. Do not use below grade or on roofs or roof-like surfaces.
Dark or highly saturated finish colors may require added maintenance compared to light or pastel colors.
Air and Water-Resistive Barrier, 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 and water-resistive barrier joint treatments and coatings meet US EPA (40 CFR 59) and SCAQMD (Rule 1113)	
LEED Credit Eligibility	
System has high potential for LEED and other sustainability program credits based on use of continuous air and water-resistive barrier and VOC compliance	
Regulatory Compliance and Standards Testing	
Refer to ICC-ESR 2323, IAPMO 382, other Sto listed stucco evaluation reports	Stucco base material is in compliance with ASTM C926 when installed at a minimum thickness of ¾ inch (19 mm) in 2 coats to code compliant wall assemblies
ICC ESR No. 1233 covering StoGuard Air & Water-Resistive Barrier	Complies with 2015 and 2018 IBC, IRC
ASHRAE 90.1-2019 ¹	Complies with Section 5, Building Envelope, air barrier requirements
ASTM 2357 ²	Air and Water-Resistive Barrier assembly meets air leakage resistance criteria of ≤ 0.04 cfm/ft ² at 1.57 psf (0.2 L/s•m ² at 75 Pa)
NFPA 285 ³	StoGuard Air and Water-Resistive Barrier with stucco meets criteria for use on Types I, II, III, IV construction
ASTM E 119 ⁴	Meets requirements for 1 hour rating over non-load-bearing fire-resistance-rated 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

Sto Corp. 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 www.stocorp.com	SB - 6400 Revision: 007 Date: 10/2023	<p style="text-align: center;">Attention</p> <p>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. 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. 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, www.stocorp.com.</p>
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