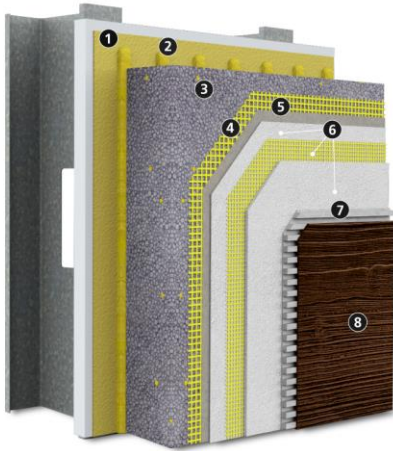


StoTherm® ci GPS with Sto Strike Defense

Decorative cladding with continuous insulation and StoGuard® Air and Water-resistive Barrier combined with Sto Strike Defense for high impact and puncture resistance



Substrate: Glass Mat Gypsum sheathing in compliance with ASTM C1177, Exterior or Exposure I wood-based sheathing (plywood or OSB), cement board in compliance with ASTM C1325, code compliant concrete, concrete masonry, portland cement plaster, or existing structurally sound, uncoated brick.

1)	Air Barrier and Water-resistive Barrier: StoGuard
2)	Adhesive: Sto TurboStick®
3)	Insulation: Sto GPS Board
4)	Reinforcement: Sto Armor Mat or Sto Armor Mat XX (embedded in Sto base coat)
5)	Base Coat options: Sto BTS Plus, Sto BTS Xtra, Sto Primer/Adhesive-B, or Sto Primer/Adhesive, Sto RFP, StoArmat Classic Plus
6)	Sto Strike Defense: <ul style="list-style-type: none"> • Sto Mesh embedded in StoArmat Classic Plus • 2nd coat, and 3rd coat (if needed) of StoArmat Classic Plus to achieve minimum 3/16-in (4.0mm) thickness
7)	StoCast Wood Adhesive
8)	Finish, choose among: <ul style="list-style-type: none"> • Sto Textured Finishes • StoCast Finishes (StoCast Wood shown) • Sto Signature and 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

StoTherm ci GPS with Sto Strike Defense is a decorative and protective exterior wall cladding that combines superior air and weather tightness with excellent thermal performance and durability. It incorporates continuous exterior insulation and StoGuard Air and Water-resistive Barrier (AWRB) with Sto Strike Defense for high impact and puncture resistance.

Uses

StoTherm ci GPS with Sto Strike Defense 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 the Americas.

Features

Continuous exterior insulation
 Higher R-value than standard EPS-based insulated walls
 Continuous air and water-resistive barrier
 No fluorocarbon blowing agents (HFC, HCFC, or CFC) used in GPS manufacturing
 Outstanding resistance to blunt impact damage

Benefits

Efficient and effective use of insulation reduces energy consumption and cost
 Thinner wall sections
 Protects against mold and moisture problems
 Low global warming potential and zero ozone depletion potential
 Protects new and existing buildings from both high energy impact and woodpeckers

Properties

Weight (not including sheathing and frame)	< 3.5 psf (17.1 kg/m ²)
Thickness (insulation)	1-1/16-12 inches (27 – 305mm)
R-value (not including sheathing and frame)	5.0 – 56.4 ft ² •h•°F / Btu (0.88 – 9.93m ² •K / W)
Wind Load Resistance	Tested up to +175, -170 lb/ft ² (+8.40, - 8.14 kPa)
Compliance	<ul style="list-style-type: none"> • IBC, IRC, IECC-2018, 2021 • ASHRAE 90.1-2019
Construction Types and Fire Resistance	<ul style="list-style-type: none"> • I-V, NFPA 285 evaluated for types I-IV • ASTM E119 evaluated for 1&2-hour rated walls • Refer to ICC ESR-1748

Warranty

15 year Limited Warranty

Maintenance

Requires periodic cleaning to maintain appearance, repair to 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
Minimum insulation board thickness 1- ¹ / ₁₆ -inch (27 mm). Maximum insulation board thickness 12-in (305mm) if used on noncombustible construction, 6-in (152mm) if used with StoCast finishes. Refer to ICC ESR-1748 for detailed information on allowable products.
Fire resistance rated assemblies limited to 6-in (152 mm) maximum insulation board thickness, 4-in (102mm) if StoCast Finishes are used. Refer to ICC ESR-1748 for detailed information on allowable products. Listing of StoArmat Classic Plus in fire resistance-rated assemblies is pending.
Do not use on interior walls. A thermal barrier is required (typically minimum ½-in [13mm] gypsum wallboard) to separate the insulation board from the interior
Structural back-up wall must be level to ¼ inch in 10 ft (6mm in 3.0m)
Wind load resistance: +175, -170 lb/ft ² (+8.40, -8.14 kPa) ultimate loads achieved. Ultimate wind load resistance also depends on sheathing, sheathing attachment, and stiffness of supporting construction. Design for maximum allowable deflection of L/240.
Impact resistance: supplemental reinforcing mesh layers, cement board overlay, or other design adjustments may be prudent for areas adjacent to heavy pedestrian traffic or other areas of high impact or abuse. Refer to Sto Guide Details.
For use on vertical above grade walls only. Do not use on roofs or roof-like surfaces, on surfaces subject to in-service water immersion, or below grade. Maintain clearance of minimum 6-inches (152mm) above grade.
Insulation material is flammable. Keep away from flame, ignition sources, sparks, high heat, and temperatures in excess of 165°F [74° C].
Dark finish colors with LRV (Light Reflectance Value) < 20 are not recommended.
Air Barrier, insulation board, and base coat materials are not intended for prolonged weather exposure. Allow 180 days maximum between application of air and water-resistive barrier and insulation board (90 days if StoGuard VaporSeal is used).
Refer to specific component product bulletins and packaging for other limitations that may apply involving use, handling, and storage of component materials.

Sustainable Design	
Air Quality and VOC Compliance	
All finish coatings, adhesives, and AWRB detail components and coatings meet South Coast AQMD (Rule 1113) standard for Building Envelope Coatings: VOC less than 50 g/L.	
Sustainability	
The system has high potential for LEED and other sustainability program credits based on efficient and effective use of a continuous air barrier and continuous exterior insulation and the resulting reductions in energy use and greenhouse gas emissions. The use of light weight metal studs and light weight finishes has positive impacts on life cycle energy use by reducing dead loads and structural support requirements when compared to mass wall and full thickness/weight veneer units. Sto GPS Board does not use fluorocarbon blowing agents (HFC, HCFC, or CFC) in manufacturing. It is recyclable and has excellent long term thermal stability, low global warming potential and zero ozone depletion potential.	
Regulatory Compliance and Standards Testing	
UL ER16529-01	GPS Board listed and labeled by UL Solutions
ICC ESR No. 1233	StoGuard complies with 2018 and 2021 IBC, IRC and IECC
ASHRAE 90.1-2019 ¹	Complies with Section 5, Building Envelope, air barrier and continuous insulation requirements
ASTM E 2357 ²	Air and Water-resistive Barrier system meets air leakage resistance criteria of ≤ 0.04 cfm/ft ² at 1.57 lb/ft ² (0.2 L/s•m ² at 75 Pa)
NFPA 285 ³	Meets flame propagation criteria for use on Types I, II, III, IV construction with up to 12-in (305mm) of Sto GPS Board, 6-in (152mm) for StoCast Finishes (refer to ICC-ESR 1748 for details)
ASTM E 119 ⁴	Meets requirements for use over fire-resistance-rated wall assemblies with maximum 6-in (152mm) thick insulation board, 4-in (102mm) for StoCast Finishes (refer to ICC ESR-1748 for details)

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

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-5800 Revision: 001 Date: 06/2024	<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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