

## StoLite® Panel

Lightweight insulating pre-fabricated exterior wall panel has multiple finish options with the look of stone, wood, brick, or stucco



Structural Back-up Wall (by others): Steel or wood frame with glass mat gypsum sheathing in compliance with ASTM C1177 or code compliant OSB or plywood sheathing, concrete or concrete masonry, existing structurally sound, uncoated brick or other masonry wall construction.

1)	Air and Moisture Barrier (AMB): Sto Gold Coat®
2)	Adhesive: Sto TurboStick®
3)	C-channel: Min 18 gage cold rolled galvanized steel channel in compliance with AISI S-100
4)	Insulation: Sto EPS Insulation Board in compliance with ASTM E2430 (except for size)
5)	Reinforcing Mesh: Sto Mesh
6)	Base Coat: Sto Primer/Adhesive-B, Sto BTS Plus, Sto BTS Xtra, or sto RFP (with Sto Mesh embedded)
7)	Primer (optional): StoPrime Sand
8)	Textured Finish: Stolit Sto Custom Cast Finish: StoCast Wood or StoCast Brick

System Accessory: StoSeal STPE Sealant for use between StoLite Panels, 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

StoLite Panel is a lightweight insulating exterior wall panel that combines superior weather tightness with excellent thermal performance. It incorporates a wide range of decorative textured finishes and veneer options to produce an advanced high performance wall cladding.

### Uses

StoLite Panel can be used in residential, commercial, and institutional wall construction

### Features

#### Pre-fabricated panel

- Improved quality control
- Faster construction timelines
- Less job site disruption

#### Lightweight

- Simplified handling and erection techniques
- Limits additional dead load on structure

#### Virtually unlimited color selection in multiple textures and veneer options

- Design versatility

#### Compatible with StoGuard Air and Moisture Barriers

- Improved moisture protection and occupant comfort
- Single source protection – AMB to exterior finish

### Properties

#### Weight (not including backup wall)

Less than 6.25 lb/ft<sup>2</sup> at 12 in thick (31.5 kg/m<sup>2</sup> at 305mm)

#### Insulation R-value per inch (RSI value per 25mm)

3.85 ft<sup>2</sup>•h•°F / Btu at 40°F (0.678 m<sup>2</sup>•K / W at 4°C)

#### Permissible Construction Types

Meets requirements for use on all Types (I-V)

#### Finish

Wind, weather, and crack-resistant

### Warranty

10, 12, or 15 year limited warranty, depending on finish

### Maintenance

Requires periodic cleaning of finish and recoating to maintain appearance. Sealants and other façade components must be maintained to prevent water infiltration into or behind the system.

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Precautions and Limitations	
Minimum insulation board thickness 2 in (51mm), maximum practical thickness 6 in (305 mm), with build-outs 12 in (305mm)	
Fire resistance rated assemblies: limited to 4 inches (102 mm) maximum insulation board thickness. Must be installed over existing fire resistance rated concrete, masonry, or non- load bearing steel frame wall construction. Other fire resistance rated assemblies may apply with proper engineering analysis or modeling by a qualified fire protection engineer.	
Structural back-up wall must be level to within ¼ inch in 10 ft (6 mm in 3.0 m)	
Wind load resistance - structural back-up wall maximum allowable deflection normal to the plane of the wall: L/240. Verify pull-out or withdrawal capacity of fasteners (clips into structural wall, back-fasteners into structural wall and C-channels) in relation to wind loads. Ultimate Load Values listed below. Apply appropriate safety factor as per applicable code requirements: <ul style="list-style-type: none"> <li>Assembly 1, Adhesive and Back-fastening: <math>\pm 125 \text{ lb/ft}^2</math> (<math>\pm 5.98 \text{ kPa}</math>), Maximum 24 in (610mm) oc C-channels perpendicular to maximum 16 in (406mm) oc studs. Attachment into C- channels at maximum 16 in oc (406mm) horizontally, maximum 24 in oc 610mm) vertically. Centerline of C-channels maximum 8 in oc (203mm) from panel edges</li> <li>Assembly 2, Adhesive and Clip fastening: <math>+125 \text{ lb/ft}^2</math>, <math>-24 \text{ lb/ft}^2</math> (<math>+5.98 \text{ kPa}</math>, <math>- 0.95 \text{ kPa}</math>), Maximum 24 in (610mm) oc C-channels perpendicular to maximum 16 in (406mm) oc studs. Minimum 2 rows of clips spaced maximum 16 in (406mm) oc horizontally, maximum 24 in (610mm) oc vertically. Centerline of C-channels maximum 12 in (305mm) oc from panel edges.</li> </ul>	
Maximum size panel: Adhesive and Back-fastening Method: 8 x 12 ft (2.43x3.65m) with a maximum length or height of 12 ft (3.65m) Adhesive and Clip Method: 4 x 8 ft (1.21 x 2.43m) with a maximum length or height of 8 ft (1.21m).	
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 below grade, on ceilings or soffits, or on roofs or roof-like surfaces.	
Insulation material is flammable. Keep away from flame, ignition sources, high heat and temperatures in excess of 165°F [74° C]) during storage, installation, handling, and after erection on the building.	
Dark finish colors with LRV (Light Reflectance Value) < 20 are not recommended.	
Refer to specific component product bulletins and packaging for other limitations that apply on 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 for architectural coatings.	
LEED Credit Eligibility	
System has high potential for LEED and other sustainability program credits based on elimination of waste and other efficiency by-products of pre-fabricated construction methodology, and efficient and effective use of continuous exterior insulation with resulting energy savings and reductions in greenhouse gas emissions.	
Regulatory Compliance and Standards Testing	
<b>IECC, ASTM E2178</b>	Air barrier component complies with 2015 and 2018 IECC Section C402.5 as an air barrier material
<b>IBC, IRC, ASTM E 2570</b>	System WRB conforms with requirements of 2015 IBC Section 1408, 2018 IBC Section 1407, and 2015 and 2018 IRC Section R703.9.2
<b>ASTM E2430, ASTM E2568</b>	Insulation conforms with applicable standard for EPS use in EIF Systems (except for size [ASTM E2430]). System conforms with Table 1 performance criteria (ASTM E2568)
<b>NFPA 285, NFPA 268</b>	System meets requirements for use on all types of construction (Types I-V)
<b>IECC</b>	System meets requirements for continuous insulation and ci R-value requirements for above grade walls of 2015 and 2018 IECC Section 402.2, and contributes to lower U-values for above grade walls when figuring code compliance based on U-factor

<p><b>Sto Corp.</b> 3800 Camp Creek Parkway Building 1400, Suite 120 Atlanta, GA 30331</p> <p>Tel: 404-346-3666 Toll Free: 1-800-221-2397 Fax: 404 346-3119 <a href="http://www.stocorp.com">www.stocorp.com</a></p>	<p><b>SB_5000</b> Revision: 002 Date: 5/2023</p>	<p style="text-align: center;"><b>Attention</b></p> <p><small>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 non-performance 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 CANADA LTD. 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 Canada Ltd. website, <a href="http://www.stocorp.com">www.stocorp.com</a></small></p>
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