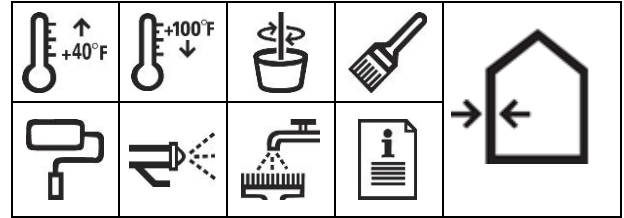


## PRODUCT BULLETIN

# StoGuard® VaporSeal®

Product Number: 80263



### PRODUCT DESCRIPTION

StoGuard VaporSeal is a fluid-applied Class 1 vapor retarder membrane for use over prepared vertical above-grade concrete, concrete masonry, brick masonry, wood sheathing, cementitious sheathing, and glass mat gypsum sheathing, as part of a StoGuard® air and water-resistive barrier system. It is used in Sto proprietary wall systems and beneath multiple cladding types.

FEATURES	BENEFITS
Class 1 vapor retarder	0.06 perms measured per ASTM E96 dessicant method
High elongation (>500%) and cold temperature crack bridging	Meets ASTM C 1305 Low Temperature Crack Bridging requirements
Structural and durable	Rigid and stable under air pressure loads; does not tear or blow off the wall with wind
UV durable	Can be left exposed for up to 6 months before covering with wall cladding
Spray applied with airless spray equipment	Easy, fast installation; does not require specialized spray equipment
Water-based and low VOC	Safe, VOC compliant, easy clean-up, improved IAQ
Compatible with other StoGuard products	Reliability and peace of mind

#### Coverage (per pail)

70-90 ft<sup>2</sup> (6.5-8.4 m<sup>2</sup>) when applied at 80 wet mils on smooth substrates

Coverage may vary depending on substrate, application technique, waste factor, and other variables that may exist. CMU substrates will generally be on the lower end of the coverage range. Construct a mock-up under actual conditions of use to verify proper surface preparation, number of coats required, coverage, and method of application for approval by the appropriate authority.

**Packaging:** 5 gallon (19L) pail

**Shelf Life:** 12 months in original, unopened, properly stored container.

**Storage:** Store in tightly sealed container. Protect from extreme heat [90°F (32°C)], freezing and direct sunlight.

### SURFACE PREPARATION

Sto Proprietary Wall Systems: StoTherm® ci, StoVentec®, StoPowerwall®, StoQuik® Silver, StoPanel®, and StoLite® systems. Refer to applicable Sto Specification.

Surfaces must be fully cured, structurally sound, clean, dry, and free of frost, damage, and all bond-inhibiting materials, including dirt, dust, efflorescence, form oil and other foreign matter. Sheathing must be Exterior Grade or Exposure 1 wood-based sheathing, cementitious sheathing in compliance with ASTM C1325 Type A, or ASTM C1177 compliant glass mat gypsum sheathing. Sheathing must be installed in compliance with the building code and manufacturer's recommendations. Treat sheathing joints, inside and outside corners, rough openings, and transition details with appropriate StoGuard® Detail Components. Refer to Sto Details. Pre-treat defects such as knots in wood-based sheathing, vacant fastener holes or over-drive fasteners, and minor cracks (up to 1/16 inch [1.6 mm] wide) in concrete and CMU with Sto RapidGuard®. If cracks are structural consult an engineer. Note: for fast drying in cold or damp weather use Sto RapidGuard for detailing and pre-treatments. Apply StoGuard VaporSeal over Sto RapidGuard within 48 hours of its drying for best adhesion.

### MIXING

Mix to a uniform consistency with an electric drill and clean, rust-free paddle. Do not thin or dilute with water.

### APPLICATION

Provide adequate ventilation and ensure surface and ambient temperatures are between 40°F and 100°F (4°C and 38°C) during application and drying period. Apply only to fully cured, structurally sound, clean, dry, properly prepared, frost-free surfaces.

**Spray Application:** apply StoGuard VaporSeal to the prepared substrate using airless spray equipment that pumps a minimum 1-1/4 to 1-1/2 gallons (4.7-5.7 L) per minute. Suggested tip size is .025. Pressure and tip size may vary depending on equipment used. Spray in one or two coats to achieve 80 mils total WFT. Apply uniformly and achieve a VOID and PINHOLE FREE surface on all substrates. Back roll when applying on CMU and OSB substrates.

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### APPLICATION (CONTINUED)

**Roller Application:** roller application is recommended only at detail areas such as treatment of sheathing joints and rough openings with StoGuard Fabric. Use a ¾ inch (19 mm) synthetic nap roller and apply liberally.

**IMPORTANT:** the condition of the substrate may dictate thicker application or more coats to achieve a VOID and PINHOLE FREE surface, particularly on substrates like concrete masonry where CMU composition, unit weight (lightweight or normal weight), porosity, joint profile, and other variables may exist. For “rough” CMU wall surfaces level with a Sto portland cement-based leveler or fill with StoPrime® Block Surfacers HP before applying the coating. Use the mock-up and site tests as the basis for the work. Some highly absorbent glass mat gypsum sheathing substrates may require back rolling to achieve a VOID and PINHOLE FREE surface. Avoid excess film build-up of wet material to prevent sag, especially on non-porous surfaces and during cold or damp weather. Work away from sun during application.

**Clean Up:** clean tools and equipment with water immediately after use. Dried material can only be removed mechanically.

**Drying:** product dries within 24 hours under normal conditions [70°F(21°C), 50% RH]. Drying time varies depending on temperature/humidity, thickness of application and surface conditions. Hot, dry conditions accelerate drying. Cold weather and/or damp conditions delay drying. Protect from rain, high humidity, and temperatures less than 40°F (4°C) until completely dry. **IMPORTANT: IF TEMPORARY HEATERS ARE USED, VENTILATE TO THE EXTERIOR TO PREVENT WATER VAPOR FROM CONDENSING ON OR WITHIN THE WALL ASSEMBLY COMPONENTS.**

### LIMITATIONS

- Ambient and surface temperatures must be between 40° and 100°F (4° and 38°C) during application and drying period.
- Do not apply if the surface temperature is less than 5°F (2.8°C) above the ambient dew point temperature.
- Do not use below grade or on surfaces subject to in-service water immersion.
- Allowable weather exposure: 180 days. When used in conjunction with adhesively attached StoTherm ci Systems ensure the surface is clean, dry and free of surface contamination.
- Fire-retardant or pressure treated plywood must be dry with surface free of salts or other chemicals migrating from within the wood. Test adhesion to be sure of desired results.

### LIMITATIONS (CONTINUED)

- Exercise care when mechanically attaching wall assembly components through StoGuard VaporSeal so that fasteners go into (not between) framing supports. Do not use powder actuated or other fastening devices that can damage the substrate. Seal all penetrations through the wall to make them watertight. Test assemblies when necessary to verify watertightness.
- Use a slip sheet (typically one layer of building paper or Sto DrainScreen® and building paper) between StoGuard VaporSeal and stucco or adhered masonry veneer over metal lath. Refer to Sto Details.
- Surface remains somewhat “tacky” after application and drying. Do not stack other materials on top.

### LIMITED WARRANTY

This product is subject to a written limited warranty which can be obtained free of charge from Sto Corp.

### HEALTH & SAFETY

**Health Precautions:** Product is water-based. As with any chemical construction product, exercise care when handling.

**WARNING:** Causes eye and skin irritation.

**Precautionary Statement:** Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

**FIRST AID MEASURES:** Eye Contact: Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.

**Skin Contact:** Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

**Ingestion:** If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Store locked up.

**Spills:** Collect with suitable absorbent material such as cotton rags.

**Disposal:** Dispose of in accordance with local, state or federal regulations.

**Warning:** KEEP CONTAINER CLOSED WHEN NOT IN USE. KEEP OUT OF THE REACH OF CHILDREN. NOT FOR INTERNAL CONSUMPTION. FOR INDUSTRIAL USE ONLY. Consult the Safety Data Sheet (SDS) on [www.stocorp.com](http://www.stocorp.com) for further health and safety information.

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### TECHNICAL DATA

REPORT	TEST METHOD	TEST CRITERIA	TEST RESULT*
%Solids (by volume)	Calculation	N/A	50%
Color	N/A	N/A	Blue/Gray
Air Leakage Resistance	ASTM E2178	< 0.02 L/m <sup>2</sup> ·s @ 75 Pa (<0.004 cfm/ft <sup>2</sup> @ 1.57 psf)	Pass
Water Vapor Permeability	ASTM E96 Method A	Measure	0.06 perms at 40 DFT (3.43 ng / Pa·s·m <sup>2</sup> )
Surface Burning	ASTM E84	Flame Spread: ≤ 25 Smoke Developed: ≤ 450	Flame Spread: 20 Smoke Developed: 80
Elongation	ASTM D412	Measure	> 500% at 40 mils DFT
Tensile Strength	ASTM D412	Measure	> 200 psi (1379 kPa)
Low Temperature Crack Bridging	ASTM C1305	No cracking after 10 cycles at -15°F (-26°C)	Pass
Adhesion to Substrates	ASTM D4541	> 15 psi (103 kPa)	> 15 psi (103 kPa) over glass mat gypsum & OSB > 40 psi (276 kPa) over plywood > 35 psi (241 kPa) over CMU
Nail Sealability	ASTM D1970	No leakage	Pass
Resistance to Mold	ASTM D3273	No growth at 30 days	Rating = 10 (no growth) at 90 days
Accelerated Weathering/ Hydrostatic Pressure	ASTM E2570/ AATCC 127 (modified)	No cracking of the coating or bond failure, no water penetration after cyclic weathering & 5-hour water column (21.5 in [55 cm])	Pass
Structural, Racking, Restrained Environmental Conditioning, and Resistance to Water Penetration	ASTM E2570/ E1233/ E72/E331 (par 6.6.3)	No cracking in the field of the panel, at substrate joints, and at the interface with flashing	Pass, No water penetration after 15 minute water spray at 2.86, 6.24, 12.0 psf (137, 299, 574 Pa)
Air Leakage of Air Barrier Assembly*	ASTM E2357	< 0.2 L/s·m <sup>2</sup> at 75 Pa (< 0.04 cfm/ft <sup>2</sup> at 1.57 psf)	Pass*
Fire Performance of Assembly	NFPA 285	Comply with acceptance criteria	Complies (see below)
VOC Compliance			
Building Code Compliance		<ul style="list-style-type: none"> <li>Meets requirements of 2018 IBC, IRC, and IECC as an air barrier and water-resistive barrier, complies with requirements of ICC AC 212 and ASTM E2570. Refer to ICC-ESR 1233.</li> <li>Class A Building Material. Meets requirements for use on noncombustible construction as a component of:               <ul style="list-style-type: none"> <li>StoTherm® ci, StoPowerwall®, StoQuik® Silver, StoPanel®, and StoLite®. Refer to ICC-ESRs 1748, 2323, 2536, 4500, and 1233</li> <li>Code compliant concrete, concrete masonry, portland cement stucco, and other wall assemblies. Refer to ICC-ESR 1233</li> </ul> </li> </ul>	
VOC Compliance		Complies with US EPA (40 CFR 59) and South Coast AQMD (Rule 1113) VOC emission standards for Building Envelope Coating, VOC less than 50 g/L	
Results are based on lab testing under controlled conditions. Results can vary between labs or from field tests.			
* Based on tests performed with Sto joint treatment and no air barrier top coat			

<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>	Revision No: 007 Date: 11/2022	<p style="text-align: center;"><b>ATTENTION</b></p> <p>This product is 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. It 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 this product 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 EXPRESSED 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></p>
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