

StoGuard® VaporSeal® R

81294 StoGuard VaporSeal R
 Fluid-applied air and vapor barrier
 ASTM E-2357 Evaluated
 ASHRAE 90.1 Compliant
 ASHRAE 189.1 Compliant



Technical Data			
REPORT	TEST METHOD	TEST CRITERIA	TEST RESULTS
Air Leakage of Air Barrier Assembly	ASTM E-2357	≤ 0.2 L/s·m ² at 75 Pa (≤ 0.04 cfm/ft ² at 1.57 psf)	Pass
Water Vapour Permeance	ASTM E-96 (Dry Cup)	< 0.1 perms (< 5.7 ng/Pa·s·m ²)	0.092 US perms (5.26 ng/Pa·s·m ²)
Nail Sealability	ASTM D-1970	No water penetration after 72 hours at 40°F (4°C)	Pass
Air Barrier	ASTM E-2178	< 0.02 L/m ² ·s @ 75 Pa (<0.004 cfm/ft ² @ 1.57 psf)	Pass
Elongation	ASTM D-412	Measure	101% at 28 days
Aging/Water Resistance	ICC ES AC 212/AATCC 127	Resist 21.6 inches (55 cm) water for 5 hours before and after aging	Pass
Adhesion to Substrates¹	ASTM D-4541 (ASTM C-297 modified)	> 15 psi	Exterior Gypsum: > 15 psi Dens-Glass Gold: > 15 psi OSB: > 40 psi Plywood: > 40 psi CMU: > 50 psi Concrete: > 50 psi
Flame Spread	ASTM E-84	Flame Spread: < 25 Smoke Developed: < 450	Flame Spread: 25 Smoke Developed: 300
VOC (g/L)	This product complies with US EPA (40 CFR 59) and South Coast AQMD (Rule 1113) VOC emission standards for architectural coatings. VOC less than 100 g/L.		
% Solids (by volume)	By measurement		59%

Notes: 1. Adhesion testing performed after 7-day coating cure. All breaks were cohesive within the substrate.

Features	Benefits
1 Waterproof	Minimizes risk of water damage and associated repair of replacement costs
2 Vapour Barrier	Effectively stops water vapour movement
3 Structural	No air moisture intrusion between the sheathing and StoGuard; rigid and stable under air pressure loads; does not tear or blow off the wall with wind
4 Spray Applied via Airless Spray Equipment	Easy, fast installation; does not require specialized spray equipment
5 Low VOC	Water-based so more environmentally friendly
6 Safe for Interior and Exterior Use	Low VOC, low flame spread and smoke development

Mixing

Mix with a clean, rust-free electric drill and paddle to a uniform consistency.

Do not thin, or dilute with water.

StoGuard VaporSeal R is a ready-mixed, flexible waterproof air and vapour barrier membrane. It is used on vertical above grade walls behind various claddings including stucco over metal lath/building paper, brick, metal panels, cement board, and others.

Coverage

All coverages per single coat at 15 wet mils, per 19 L (5 gallon) pail.
 Dens-Glass® Gold: 42-56 m² (400-450 ft²).
 Exterior Gypsum: 60-70 m² (650-750 ft²).
 Plywood: 60-65 m² (650-700 ft²).
 OSB: 49-60 m² (525-650 ft²).
 CMU: 23-27.8 m² (250-300 ft²).
 All coverages per 30 wet mils, per 19 L (5 gallon) pail.
 Dens-Glass® Gold: 18-20 m² (200-225 ft²).
 Exterior Gypsum: 30-34 m² (325-375 ft²).
 Plywood: 30-32 m² (325-350 ft²).
 OSB: 24-30 m² (260-325 ft²).
 CMU: 11.6-13.9 m² (125-150 ft²).

Packaging

5 gallon (19 L) pail.

Colour

Blue/Gray

Shelf Life

12 months, if properly stored and sealed.

Storage

Once opened, keep containers covered to protect from skinning. If material skins, remove skinned material from container.

Protect from extreme heat [32°C (90°F)], freezing, and direct sunlight.

StoGuard VaporSeal R

Application

Apply only to sound, clean, dry, properly prepared, frost-free surfaces. Sheathing joints, inside and outside corners and rough openings must be treated with StoGuard joint and rough opening treatment.

Spray-applied: Apply uniformly with airless spray or other suitable spray equipment to a wet mil thickness of up to 32 mils to achieve a total of 20 dry mils. Use horizontal, then overlapping vertical sweeping motions for continuous coverage. Surfaces may require doubling back with a second coat to obtain minimum film build and to achieve a void and pinhole free surface. CMU surfaces may require back rolling with a 19 or 25 mm (¾ or 1 inch) synthetic nap roller depending on porosity, joint profile, trueness of the wall surface, and other variables that may exist. Avoid excess build-up of wet material to prevent sag, especially on non-porous surfaces and during cold or damp weather.

Roller-applied over Exterior Gypsum Sheathing, Dens-Glass® Gold, Exterior Plywood or Oriented Strand Board (OSB): Apply 2 coats at 16 wet mils each coat to achieve a total of 20 dry mils. Use 13 mm (½ inch) nap roller for plywood, gypsum sheathing, and fiber reinforced gypsum sheathing. Use 19 mm (¾ inch) nap roller for glass mat faced gypsum sheathing.

Roller-applied over CMU: Apply uniformly with a 19 mm (¾ inch) nap roller and allow to dry. Apply a second uniform coat to achieve a void and pinhole free surface. A minimum of 16 wet mils per coat is required and a total of 20 dry mils. Apply additional coats if needed to achieve a VOID AND PINHOLE FREE surface.

IMPORTANT NOTE: StoGuard VaporSeal R functions as a waterproof air barrier on normal weight concrete masonry unit wall construction with flush (struck flush with the surface of the CMU) or concave joints when a minimum of two liberal coats are applied. Additional coats may be necessary depending on the condition of the CMU wall surface, CMU porosity, joint profile, and other variables that may exist. For "rough" CMU wall surfaces, skim coat the entire surface with one of Sto's cementitious levelers (Sto Leveler, Sto BTS® Plus, Sto BTS® Silo, or Sto Primer/Adhesive B) before application of StoGuard VaporSeal R.

A VOID AND PINHOLE FREE SURFACE must be achieved for StoGuard VaporSeal R to properly function as a waterproofing/air barrier on CMU wall surfaces.

Material Storage

Keep containers covered to protect from skinning. If skin forms, remove the skinned material from container; remaining material is unaffected by skinned material.

Curing/Drying

Dries within 4 hours under normal (21°C [70°F], 50% RH) drying conditions. Final drying varies depending on temperature/ humidity and surface conditions. Cool, damp conditions retard drying and may require extended periods of protection against rain or freezing. Protect from rain and freezing until completely dry.

Clean Up

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

Health And Safety

Health Precautions

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

Safety Precautions

Use adequate ventilation. Safety goggles and protective gloves are recommended. Remove contaminated clothing immediately.

First Aid

SKIN CONTACT: Wash thoroughly with soap and water.

EYE CONTACT: Flush immediately with water for 10-15 minutes and contact a physician.

RESPIRATORY PROBLEMS:

Remove affected person to fresh air immediately and contact a physician.

HYGIENE: Wash hands immediately after use. Wash clothing before re-use.

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 Material Safety Data Sheet on www.stocorp.com for further health and safety information.

LIMITED WARRANTY

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

Refer to Sto Specifications for more complete information on proper use and handling of this product.

Limitations

- StoGuard VaporSeal R is a water based product. Apply only when surface and ambient temperatures are 4°C (40°F) and rising. Maintain temperatures above 4°C (40°F) during drying period for at least 24 hours.
- Provide adequate ventilation during application and drying period. Ventilate temporary heaters to the exterior to prevent water vapour from accumulating on or within the wall assembly materials.
- Can be left exposed to weather for up to 60 days. Install cladding over StoGuard VaporSeal R within 60 days of installation (except StoTherm ci)
- Use beneath StoTherm ci: refer to Sto Tech Hotline No. 0709-E. Install insulation within 30 days of StoGuard VaporSeal installation.
- Protect from extreme heat (32°C [90°F]) freezing and direct sunlight.
- For complete information, refer to StoGuard Air Barrier and Moisture Control Handbook.

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Attention

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. **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.** 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, www.stocanada.com.