

Sto ExtraSeal™

Preparation

Concrete and masonry surfaces: Surfaces must be structurally sound, clean, dry or damp, absorbent, slightly pitted or profiled, and free of frost, damage, and all bond-inhibiting materials, including dirt, efflorescence, paint or other coatings, form oil and other foreign matter. Loose or damaged material must be removed by water blasting, sandblasting or mechanical wire brushing and repaired. Refer to ASTM D 4258 and ASTM D 4261 for complete details on methods of preparing cementitious substrates for coatings. For concrete surfaces, especially high density concrete, impose proof load quality control testing regime to verify adequacy of adhesion of wall assembly components to structure.

Repair surface defects such as cracks or spalls in concrete and masonry surfaces. Apply 4 inch (102 mm) wide self-adhesive StoGuard Mesh centered over cracks up to 1/8 inch (3 mm) wide and coat with Sto ExtraSeal applied by trowel or drywall knife. Consult a qualified structural engineer for wider cracks or structural cracks. If surface requires patching use Sto Leveler or Sto BTS Xtra for patches up to 1/4 inch (6 mm) in depth.

Dampen CMU and highly absorbent concrete surfaces in hot, dry weather to reduce surface absorption just prior to installation of Sto ExtraSeal.

DensGlass® and Glass Mat Gypsum Sheathing in Compliance with ASTM C 1177: surface must be clean, dry and free of all bond-inhibiting materials. Sheathing must be butted at joints and installed in accordance with building code and manufacturer's requirements. Fill holes, for example where screws were removed and over-driven fasteners, by spotting with Sto ExtraSeal. Remove and replace damaged sheathing.

Rough Opening Protection, Air Barrier Connections, and Flashing: prior to commencing work protect rough openings with Sto ExtraSeal (or other StoGuard rough opening protection materials lapped over Sto ExtraSeal). Refer to Sto Detail 20.20a-e for frame walls with gypsum sheathing and 21.20G or R for concrete masonry walls. Fully resolve air barrier connection details for air barrier continuity, and WRB and flashing details to prevent water penetration into the wall assembly, prior to commencing work. Refer to StoGuard guide details and Sto Tech Hotline Nos. 0211-BSc, *Air Barrier Connections and StoGuard*, 0403-BSc, *Critical Detail Checklist for Wall Assemblies*, and 0603-BSc, *Moisture Control Principles for Design and Construction of Wall Assemblies*.

Mixing

Use 4-6 qts. (3.8-5.7 L) of water per 40 lb bag (18 kg). Mix manually by adding one bag of Sto ExtraSeal to clean, potable water in a clean mixing pail. Mix with a clean, rust free, electric drill and paddle. Allow to set approximately 5 minutes, adjust mix if necessary by adding up to 12 fl. oz. (0.35 L) of water to a bag, and remix to a uniform consistency. Avoid retempering after mixing of product. Do not exceed maximum amount of water in mix ratio. Pot life is approximately 45 minutes, depending on conditions. After spreading material it will remain plastic for up to 1 hour, depending on conditions.

Application

Apply only to sound and clean, dry (or damp if CMU or concrete), properly prepared, frost-free surfaces.

Spray equipment: use the Sto M-8 Pump with 8.5 mm nozzle. Alternatively use a Graco Rtx 1500 Texture Unit with Rtx Gun, 4 mm nozzle. Limit hose length to no more than 25 ft (7.6 m) and use 30 psi (207 kPa) pump pressure. Adjust nozzle size and settings as needed to accommodate conditions.

Air Barrier Application on CMU and Gypsum Sheathing

CMU: apply a uniform coat of Sto ExtraSeal at approximately 1/16 - 1/8 inch (1.6 – 3 mm) thick by spray or trowel. For spray applications "knock down" with a trowel. Surface must be free of voids and pinholes when dry. Thickness will vary with substrate condition. Final application must not show CMU surface texture or joints.

Gypsum Sheathing: center nominal 4 inch (102 mm) wide self-adhesive StoGuard Mesh over butted sheathing joints and press into place. Center nominal 9 inch (229 mm) wide self-adhesive StoGuard Mesh over butted sheathing joints at corners, fold and press into place. Apply Sto ExtraSeal by spray, trowel, or drywall knife at approximately 1/16 inch thick (1.6 mm) over the mesh and spread to fill and cover the mesh surface. Allow to dry and apply an additional coat of Sto ExtraSeal at approximately 1/16 – 1/8 inch (1.6 – 3 mm) thick by spray or trowel over the entire sheathing surface. For spray applications "knock down" with a trowel. Surface must be free of voids and pinholes when dry with no substrate color visible.

CI Adhesive Application on CMU and Gypsum Sheathing

Notched Trowel Method (where drainage behind the rigid insulation board is required): Apply a uniform coat of Sto ExtraSeal at approximately 3/8 inch (9 mm) thick by spray or trowel to the wall surface. Form vertical ribbons of adhesive with the specified size notched trowel. Alternatively, apply adhesive uniformly to the back of maximum 2 x 8 ft (0.6 – 2.4 m) rigid insulation boards with the notched trowel.

Dab Method: apply dabs of adhesive to the back of maximum 2 x 8 ft (0.6 x 2.4 m) rigid insulation boards with a minimum 4 inch (102 mm) drywall knife or trowel in 2 rows of minimum 7 dabs per row. Space adhesive dabs evenly across the length of the board at no more than 16 inches (406 mm) on center. Space dabs in rows of no more than 16 inches (406 mm) on center and no more than 3 inches (76 mm) from board ends and edges.

Immediately place insulation boards against the wall surface before adhesive "skins". If adhesive "skins" remove and apply fresh material.

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Application cont.

Install insulation with firm, even pressure applied along the full dimension of the boards in courses starting from the base of the wall in a running bond pattern. Stagger joints minimum 6 inches (152 mm) from sheathing joints. Cut insulation in an "L" shape around openings in the wall to avoid alignment of joints with corners. Tightly abut insulation board joints and interlock boards at inside and outside corners. Trim or rasp boards for flush, square corners. Where brick ties or other elements penetrate the insulation pre-fit and cut the insulation, or install in a manner to avoid breakage and gaps in the insulation. Seal gaps and open joints in insulation with StoTurboStick spray foam. After adhesive sets, rasp or shave expanded foam flush with the surface if necessary for cladding attachment. Do not install CI over working or moving joints or joint sealants.

IMPORTANT: Sto ExtraSeal ci adhesive is compatible with maximum 2 x 8 ft (0.6 x 2.4 m) planed XPS, paper or glass mat faced polyisocyanurate, and unfaced EPS rigid insulation board surfaces. Temporary adhesive attachment of standard XPS is possible. A mechanically attached cladding such as siding, stucco, masonry veneer or brick ties with clips must be installed over the board for permanent attachment. Wall assemblies incorporating foam plastics must comply with applicable building codes (IBC Chapter 26 and IRC Section R316) and ASTM standards (ASTM C 578 Type I or II EPS and Type IV or X XPS, ASTM C 1289 Type II Class 1 or 2 polyisocyanurate).

Limitations

- Use only when surface and ambient temperatures are above 40° F (4° C) and rising during application and drying period.
- Do not use when temperature is above 100° F (37.7° C).
- Rapid loss of moisture from exposure to direct sunlight, wind and high temperatures, can cause cracking in Portland cement based materials. Adjust scheduling of work accordingly to avoid these conditions.
- Do not use on surfaces with standing or glistening water.
- Use of excess water in the mix can cause cracking and low strength development in Portland cement based materials. Do not exceed recommended amount of mix water.
- Do not use on wood substrates.
- Not intended for permanent exposure to weather. Attach continuous insulation or protect with cladding within 90 days.
- Will not adhere to foil facing or "skinned" insulation board surfaces.
- Not for use below grade.
- Not recommended as a base or adhesive for stone, tile, or other adhered masonry veneer

Air Barrier, WRB, and Scratch Coat on CMU Beneath Direct Applied Stucco

Apply a uniform coat of Sto ExtraSeal at approximately 1/16 - 1/8 inch (1.6 - 3 mm) thick by spray or trowel BEFORE stucco grounds and accessories are installed. For spray applications "knock down" with a trowel. Surface must be free of voids and pinholes when dry. Apply a minimum 3/8 inch (9 mm) scratch coat of Sto ExtraSeal by spray or trowel any time after the first coat is dry. Rake the surface horizontally with a 1/4 x 3/8 x 1/4 inch (6 x 9 x 6 mm) tile setter's notched trowel. Do not moist cure the scratch coat. Allow to dry minimum 24 hours and install a Sto listed Portland cement stucco brown coat in accordance with applicable codes and manufacturer's requirements. Limit total thickness, including Sto ExtraSeal and stucco brown coat, to 5/8 inches (16 mm) maximum. Finish stucco wall surfaces with Sto primer and the desired texture/color Sto smooth or textured finish. Refer to product bulletins for finish installation techniques.

Curing, Drying

Sto ExtraSeal does not require moist curing. Sto ExtraSeal dries within 8 hours under normal drying conditions [70°F (21°C), 50% RH]. Cold and/or damp weather will extend drying time. Hot or dry conditions will accelerate drying. 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

Contains Portland cement and crystalline-free silica. Avoid breathing dust. As with any chemical product, exercise care when handling.

Safety Precautions

Use adequate ventilation. Use of a NIOSH/MSA-approved dust respirator, safety goggles and protective gloves is recommended.

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 in an appropriate container. Uncured material may be removed with water.

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.

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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 Corp. website, www.stocorp.com.