

CretePRO® Masonry Sealer is a bio-based masonry sealer that employs a sodium silicate sealing agent, that is enzymatically modified to chemically bond with the cement in the mortar joints of the masonry. With the introduction of water, the sealing agent increases in mass and forms a gel that encapsulates water trying to enter the mortar. This vapor permeable gel fills cracks, pores, and voids in the mortar joints, creating a long-term barrier to water infiltration. It penetrates into the mortar joints and reacts with the calcium and water contained in the mortar, to form a calcium-silicate gel complex that fills cracks, pores, and capillaries. This gel creates a sub-surface barrier against the ingress of water and contaminants such as chloride ions.



KEY BENEFITS

- 5-years of protection.
- Fast and simple to apply.



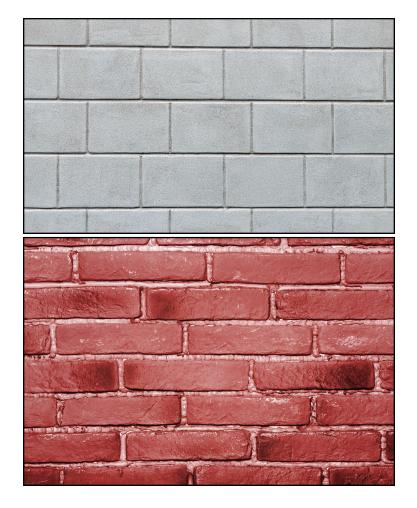
SYSTEM COMPONENTS

The following components are **recommended** to be used in combination with the CretePro Masonry Sealer.

- ACR Accelerating Agent
- ACR Crack & Void Treatment

The following components **may** be used in combination with the CretePro Masonry Sealer, but are not required.

- ACR Polyseal Sealant S+
- ACR PolyMembrane Flashing
- ACR Concrete & Masonry Etch
- ACR Concrete & Masonry Cleaner
- ACR Emulsifying Cleaner
- ACR Paint Remover
- DuraTite Crystalline Admix
- DuraTite Plug
- DuraTite Repair Mortar
- DuraTite Concrete Patch & Repair
- DuraTite Foundation
- DuraTite MLastic



PRODUCT PROPERTIES

- Colorless, clear to slightly opaque, odorless, soapy feel
- · Non-toxic & Biodegradable
- Percent non volatile solids 26.55%
- Specific gravity at 77°F (25°C): 1.2
- Flash point no true flash boils at 214°F (101°C)
- Auto-ignition temperature N/A Non-explosive
- Viscosity 14.3 centipoise or 0.1172 Stokes
- Hazardous chemicals Sodium Silicate (modified)
- pH 11.51





PERFORMANCE TIMELINE

The CretePro Masonry Sealer utilizes a bio-based modified sodium silicate gel-forming technology to stop water penetration. Sodium Silicate is often referred to as "liquid glass" and is a silicon-oxygen polymer containing ionic sodium (Na+) components. Sodium silicate is similar to carbon-based plastics since silicon-oxygen-silicon bonds between each monomer are covalent. The polymer-like nature of the sodium silicate matrix as well as the polar character of oxygen and sodium atoms allows for bonding of water molecules within the polymer matrix. The modified sodium silicate penetrates into and bonds with the mortar to create a barrier to water, stopping the water from within the mortar rather than on the surface. The chemical reaction that creates this barrier is catalytic in nature and full sealing should not be expected until complete gel formation has been achieved.



PERFORMANCE CHARACTERISTICS

- UL Classified NSF/ANSI 61.
- Safe for potable (drinking) water.
- Increases surface hardness from 6 to 8 on Moh's scale.
- Allows 84.1% moisture vapor permeability.
- Suitable for tanking applications (positive hydrostatic pressure) tested to 400 meters (1,312').



APPLICATION

SURFACE CLEANING & PREP

CretePro Masonry Sealer must be applied to a clean, dry, dust-free mortar, at least 14 days after the mortar has been placed. In the case of old mortar and where the surface is not clean, then the use of one of the following products may be applied.

ACR Concrete Masonry Cleaner - Use this product to remove dirt and environmental debris. This product is sprayed on the surface and in most cases will require some agitation. Once the dirt and debris has been removed rinse with water.

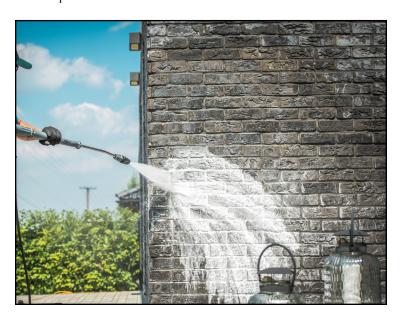
ACR Concrete & Masonry Etch - This product should be used when the surface of the mortar does not allow the proper penetration of the water based products. It is an environmentally safe and human safe substitute for muriatic acid. Apply by spraying over the entire surface of the wall. Once the product is no longer reacting with the mortar, it may either be; 1) allowed to dry in place and once dry remove loose material with a broom or vacuum; 2) remove by rinsing with water.

ACR Paint Remover - Use this product to remove paint from the surface of the masonry wall. This is an environmentally safe product and will remove paint quickly and effectively. Once used, clean with ACR Concrete Masonry Cleaner and rinse with clean water.

Check the Alchemco website (www.alchemco.com) for technical data sheets on each of these products or for help on which cleaning product will provide the best result.

PREPARATION AND MORTAR REPAIR

1. Clean the entire masonry & mortar surface. Make sure all dirt and environmental debris has been removed from the surface, so that a proper inspection can be made.







 Inspect all mortar joints and mark those mortar joints that are failing or in the process of failing. Loose mortar or cracked mortar should be marked for removal and re-pointing. Any masonry materials that appear to be cracked or broken should be replaced.



- 3. Once all mortar joints have been inspected, begin removing old mortar with a grinder. Make sure to remove damaged or loose mortar completely. The mortar joints need to be clean to accept the new mortar and get a good seal to the masonry surface.
- 4. Once all marked mortar joints have been ground out and all lose material and dust has been removed, begin application of new mortar. During the mixing of the mortar it is recommended to add DuraTite Admix to the mortar batches, this will increase the water resistance of the new mortar. DuraTite Admix should be added at the rate of 22 ounces of admix to every cubic yard of mortar. Contact Alchemco Technical for precise measurements on smaller batches.
- 5. During the re-pointing of the mortar joints care should be taken to ensure joints are properly sealed and loose mortar has been removed.



SEALER APPLICATION

- 6. 14 days after completion of all tuck pointing and mortar joint repair, apply ACR Concrete and Masonry Etch to the entire surface. This will clean and prepare the surface for application of Crete-Pro Masonry Sealer.
- 7. NOTE: Any of the system products should only be applied when the ambient temperature is 40°F (+4°C) and rising or 100°F (+38°C) and falling.
- 8. Allow the wall to dry. Once the mortar is dry to the touch begin the spray application of CretePro Masonry Sealer. Begin a the top of the wall, using a fan style sprayer, spraying from side to side no more than 6' at a time, about the width of an average persons side to side reach. Repeat this process twice to ensure good coverage and penetration of the sealer.
- 9. Allow the wall to dry. Once the surface becomes dry to the touch, but not more than 5 hours after application, wash the wall with clean water to remove any existing CretePro Masonry Sealer. Take particular care in removing any residue from the brick surface. Material left on the brick surface will turn white. DO NOT USE A POWER WASHER!





MORTAR ACCELERATING - OPTIONAL

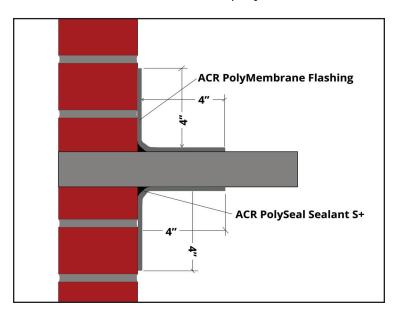
The following steps are optional and are not required.

10. Allow wall to dry! Once the surface is dry to the touch, then begin spraying ACR Accelerating Agent onto all mortar joints. Use the same method of application as was used with the waterproofing agent. Once the wall has dried to the touch, begin washing the wall to remove any excess ACR Accelerating Agent. Take particular care in removing any residue on the brick surface. Any material left on the surface will turn white. DO NOT USE A POWER WASHER, unless directed by Alchemco Technical.

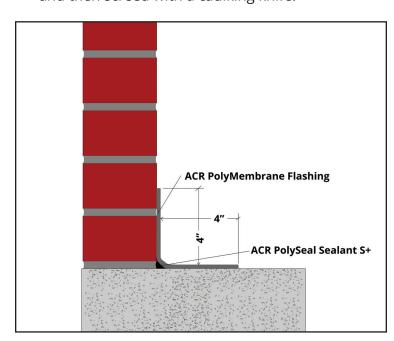
FLASHING AND SEALANT APPLICATION- OPTIONAL

The following steps are optional and are not required.

- 11. Once the final washing has dried, begin application of all flashing and sealant work.
- 12. All projections coming through the wall should sealed using ACR Polyseal Sealant S+. Place a bead of sealant around the projection at the point where the projection begins going through the wall. Using a caulking knife screed the sealant so as to seal both edges of the sealant to the vertical surface and the projection itself.



- 13. Repeat this process for every projection coming through the wall or any items mounted to the wall.
- 14. Once the sealant has begun to skin over, begin applying ACR PolyMembrane Flashing to all the projections by applying the product with paint roller. Product should be applied at no less than 30 mil wet thickness and should be applied no less than 4" onto the brick surface and no less than 4" onto the projection.
- 15. Repeat this process for every projection coming through the wall or any items mounted to the wall.
- 16. If the wall joins a horizontal surface at the base of the wall, then apply ACR Polyseal Sealant S+ to the corner made by the vertical meeting the horizontal. Apply a liberal bead of sealant to the corner and then screed with a caulking knife.



17. Once the sealant has begun to skin over, begin applying ACR PolyMembrane Flashing to both the horizontal and vertical surfaces by using a paint roller to apply no less than 30 mil wet thickness, 4" on the vertical surface and 4" onto the horizontal surface.





RATES OF APPLICATION

CretePro Masonry Sealer application rates will vary, but under most conditions it will require 1-gallon for every 90-110 square feet of concrete surface (1 liter to 2.5 square meters).

ACR Accelerating Agent application rates will vary, but under most conditions it will require 1-gallon for every 180-200 square feet of concrete surface (1 liter to 5 square meters).

ACR Polyseal Sealant S+ application rates will vary with the width of the crack, but under most condition the rate will be approximately 16-20 lineal feet per 20 ounces of product applied.



ACR PolyMembrane Flashing application rates will vary, but under most conditions when applying 30 mils dry thickness, it will require 2.3 gallons per 100 square feet. (8.7 liters per 9.3 square meters) or 217 square feet per 5 gallon bucket. At 40 mils dry thickness, it will require 3.1 gallons per 100 square feet (11.7 liters per 9.3 square meters) or 163 square feet per 5 gallon bucket.



SHELF LIFE & STORAGE

CretePro Masonry Sealer has no known limit to shelf life. Keep container sealed and avoid prolonged exposure to direct sunlight. Always agitate drum or container before use.

TESTING

The NSF/ANSI 61 is a set of national standards that relates to water treatment and establishes stringent requirements for all equipment and products that come in contact with either potable (drinking) water or products that support the

production of potable water. CretePro FasTrac Sealer has been UL Certified NSF/ANSI 61.

TESTING STANDARDS

ASTM E514 Water penetration
ASTM C952 Bond Strength
ASTM C672 Scaling Resistance
ASHTO T-259 Chloride Ion Penetration
ASHTO T-260 Chloride Ion Content
ASTM D1644 Non volatile Content
NSF 61 Potable Water Certification

ASTM C1568-08
 ASTM C1202
 ASTM C39
 Wind Uplift Approval
 Chloride Ion Resistance
 Compressive Strength

TAS 112 Permeability ASTM D93 Ignition temp

• ASTM E108 Non combustible Surface

• ASTM C-42 Compressive and Flexure Strength

ASTM-C-666 Freeze/ThawASTM D-3960 Zero VOC's

• ASHTO T-38 Moisture Vapor Transmission







AVAILABLE WARRANTIES



A Limited Liability Material Only Warranty is available at no additional cost, if the project is registered with Alchemco.

• CretePro Masonry Sealer 5-Year.

For additional information about the Alchemco system specifications or available warranties, either contact your local Alchemco distributor or Alchemco's Technical Department at technical@alchemco.com or call 800-610-2895.

LIMITATIONS

CretePro Masonry Sealer is not suitable for sealing cracks. It is recommended that all cracks, control joints, and cold joints, should be sealed with ACR Polyseal Sealant S+ or equal.



PACKAGING

CretePro Masonry Sealer is available in the following sizes;

- 5 gallon pails (18.92 liters)
- 55 gallon drums (208.2 liters)

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See specific data sheets for each system accessory item for packaging availability.







WARNINGS









DANGER! TOXIC IF SWALLOWED

This product contains Sodium Silicate and may be harmful if swallowed. Wash hands, face and any exposed skin thoroughly after handling. Keep container tightly closed. Do not eat, drink or smoke when using this product.

IF SWALLOWED: Immediately call a POISON CONTROL CENTER, doctor/physician.

Rinse mouth.

See Safety Data Sheet for further details regarding safe use of this product. Safety Data Sheets for any Alchemco product may be obtained by contacting Alchemco, 3532 Mayland Court, Henrico, VA 23233. 800-610-2895 or emailing technical@alchemco.com or calling

CHEMTREC 800-424-9300 (US)

703-741-5970 (International).













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