TECHNICAL DATA SHEET



FASTRAC

CretePRO® FasTrac is a bio-based sealer that employs a sodium silicate sealing agent, which is enzymatically modified to chemically bond with concrete. With the introduction of water, the sealing agent increases in mass and forms a gel that encapsulates water trying to enter the concrete. This vapor permeable gel fills cracks, pores, and voids in the concrete, creating a long-term barrier to water infiltration. It penetrates into the concrete and reacts with the calcium and water contained in the concrete, 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

- Fast and simple to apply.
- 100% trafficable within 4 hours after completed and dry, with minimal risk of damage during construction or thereafter.

SYSTEM COMPONENTS

The following components **may** be used with the CretePro ULTRA Waterproofing Agent, but are not required.

- ACR Accelerating Agent
- ACR Crack & Void Treatment
- ACR Polyseal Sealant S+
- ACR PolyMembrane Flashing
- ACR Concrete & Masonry Etch
- ACR Concrete & Masonry Cleaner
- ACR Emulsifying Cleaner
- ACR Paint Remover
- ACR Ceramic Granules
- DuraTite 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 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').





PERFORMANCE TIMELINE

The CretePro FasTrac 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 concrete to create a barrier to water, stopping the water from within the concrete rather than on the surface. The chemical reaction that creates this barrier is catalytic in nature and sealing should not be expected until complete gel formation has been achieved.

APPLICATION

SURFACE PREPARATION

FasTrac must be applied to a clean, dry, dust-free concrete surface, at least 14 days after the placement of new concrete. If the concrete is an older existing concrete and needs to be cleaned, then it is recommended to use one of the following products to clean and prepare the surface.



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. Coverage rate for this product will vary depending surface condition, but when used as directed the coverage rate is approximately 400-500 square feet per gallon. This product should be used at full strength.

ACR Concrete Masonry Etch - This product should be used when the surface of the concrete does not allow the proper penetration of the water based products. It is an environmentally and human safe substitute for muriatic acid. Apply by spraying over the entire surface of the masonry. Once the product is no longer reacting with the concrete, 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. Coverage rate for this product will vary depending on the application, but when used as directed the coverage rate is approximately 400-500 square feet per gallon. This product should be used at full strength.



ACR Emulsifying Cleaner - Use this product to remove grease and oil that has penetrated into the concrete. This is a solvent-based product that will break down the oil and grease and allow it rise to the surface. Once used, clean with ACR Concrete Masonry Cleaner and rinse with clean water. Coverage rate for this product will vary depending on the amount of oil and grease that needs to be removed, but when used as directed the coverage rate is approximately 200-300 square feet per gallon. This product should be used at full strength.



ACR Paint Remover - Use this product to remove paint from the surface of the concrete. This is an environmentally safe product; and will remove paint quickly and effectively. NOTE: Once used, clean with ACR Concrete Masonry Cleaner and rinse with clean water. If not properly removed this product will continue to work until removed. Coverage rate for this product will vary depending on the amount of paint that needs to be removed, but when used as directed the coverage rate is approximately 200-300 square feet per gallon. This product should be used at full strength.



NOTE: On some projects it may make more financial sense to utilize shot blasting or grinding to prepare the surface for the application of the system and related products, this is acceptable in lieu of chemical cleaning.

CLEANING AND PREPARATION

1. Clean the entire concrete surface, including any vertical surfaces adjoining the concrete surface to be waterproofed. Make sure all dirt and environmental debris has been removed from the surface.

CRACK PREPARATION - OPTIONAL

The following steps are recommended but are not required.

2. Identifying cracks to be treated - Once all surfaces are clean and free of dirt and debris. Begin reviewing all cracks and joints in the concrete surface. Mark any cracks that are 1/32" (1.0 mm) or larger.

NOTE: Any crack that has voids or chipping where the voids or chips are greater than 1/32" (1.0 mm) should be considered in this category.

- 3. Routing and grinding Cracks that have been marked as greater than 1/32" (1.0 mm) then need to be routed or ground out. This routing should provide for a clean edge and any debris that is in the crack should be removed. Loose material should not be allowed.
- 4. Old caulking Any joints that have old caulking or sealant need to have the old caulking or sealant removed from those joints and thoroughly cleaned. This will include control joints and expansion joints.



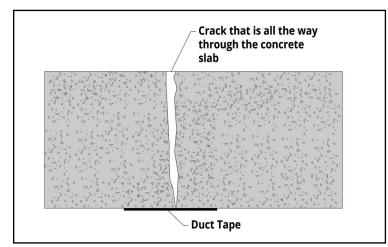
SEALING APPLICATION

- 5. Important If the system is to be applied to newly poured concrete, then the application must not begin for at least **14 days** after the pour is completed. If the system is being applied to older existing concrete then the application can begin once the surface is clean and all cracks have been properly cleaned & prepared.
- 6. NOTE: Any of the products should only be applied when the ambient temperature is 40°F (+4°C) and rising or 100°F (+38°C) and falling.





 Before applying any sealer, determine if any of the cracks extend all the way through the concrete.
For slab on grade applications this will not be possible. If a crack can be identified from below the concrete slab, then these cracks will need to have an application of duct tape applied to them.



- 8. The purpose of the duct tape is to ensure that the waterproofing material stays within the crack and does not run out. Once duct tape has been applied to the underside of any through cracks, then application of the waterproofing may begin.
- 9. Sealer should be applied using a low-pressure pump style sprayer, backpack sprayer or a drum style sprayer. A fan or cone style sprayer tip is best for the application of the product.
- 10. Begin by flooding all cracks. This includes cracks that have been routed or ground. The purpose of this spraying is to ensure that all cracks have a sufficient amount of sealer material within them. In this situation more is always better.
- 11. Once all cracks have been properly flooded, begin applying CretePro FasTrac to the entire concrete surface area at a rate of 180 - 220 square feet per gallon. As the application of product is being made, add more material to any cracks. This will ensure that the cracks have as much material as possible.



- 12. Once all surfaces have been sprayed, allow product to dry to touch (if you touch the surface and no wet product comes off on your hand). In case the product does not completely dry to the touch within 5 hours, begin the washing application.
- 13. Once the product has completely dried to the touch, but no later than the 5 hour point, begin washing the surface. Washing is to remove any excess material sitting on the surface. Washing should be done with clean, clear water. Washing should continue until there is no "white foaming" occurring, which is evidence of the presence of the material.

ACCELERATING AGENT USE - OPTIONAL

The following steps are optional and are not required.

- 14. Once the washing is complete, allow all surfaces to dry to the touch. Dry time will vary depending on environmental conditions. Once the washed surface is dry begin application of the ACR Crack & Void, followed by the application of the ACR Accelerating Agent.
- 15. Begin by spraying ACR Crack & Void into all cracks flooding them with product. Once all the cracks have been treated with ACR Crack & Void, then begin spraying all concrete surfaces that were treated with waterproofing with ACR Accelerating Agent. Spray ACR Accelerating Agent at the same rate as the waterproofing material.





- 16. After spraying allow all surfaces to dry to the touch. Once all surfaces are dry to the touch, beginning washing off excess materials from the surface. Washing should continue until there is no "light white foaming" occurring, which is evidence of the presence of the materials.
- 17. IMPORTANT! If all excess material has not been removed from the surface, once it dries there will be white streaks left on the surface. These white streaks <u>do not affect the performance of the</u> waterproofing materials, but it can be a aesthetic appearance concern. If white streaking occurs once all surfaces are dry, power washing (less than 4000 psi) may be required to remove the white streaks.



RATES OF APPLICATION

CretePro FasTrac application rates will vary, but under most conditions it will require 1-gallon for every 180-220 square feet of concrete surface (1 liter to 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 Crack & Void application rates will vary depending on crack width and depth, but under most conditions it will require 1-gallon for every 140-160 lineal feet of cracks on average.

ACR Polyseal Sealant application rates will vary with the width of the crack, but under most condition the rate will be approximately 16-18 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.







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 has been UL Certified NSF/ ANSI 61



TESTING STANDARDS

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

Potable Water Certification

Non combustible Surface

Compressive and Flexure Strength

- NSF 61
- ASTM C1568-08 Wind Uplift Approval
- Chloride Ion Resistance • ASTM C1202
- **Compressive Strength** • ASTM C39 Permeability
- TAS 112
- ASTM D93
- ASTM E108
- ASTM C-42
- ASTM-C-666
- Zero VOC's • ASTM D-3960
- ASHTO T-38 Moisture Vapor Transmission

Ignition temp

Freeze/Thaw

SHELF LIFE & STORAGE

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



LIMITATIONS

CretePro FasTrac 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

The following products are available in the following sizes:

CretePro FasTrac

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

ACR Accelerating Agent - concentrate

- 5 gal pail of concentrate = 55 gal drum
- 1/2 gal jug concentrate = 5 gal pail

ACR Crack & Void

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

ACR Polyseal Sealant S+

- 20 oz sausage packs
- 2 gallon bulk pails

ACR PolyMembrane Flashing

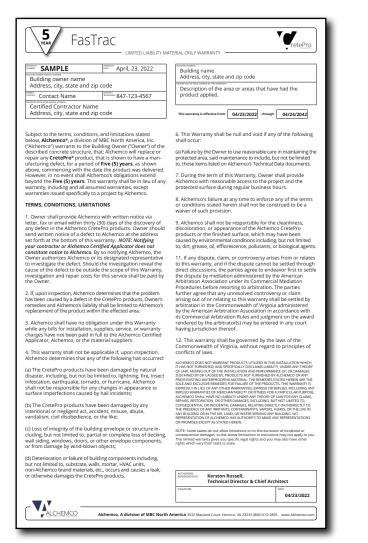
- 5 gallon pails (18.92 liters)
- 55 gallon drums (208.2 liters)



01/01/2023



AVAILABLE WARRANTIES



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

• CretePro 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. WARNINGS



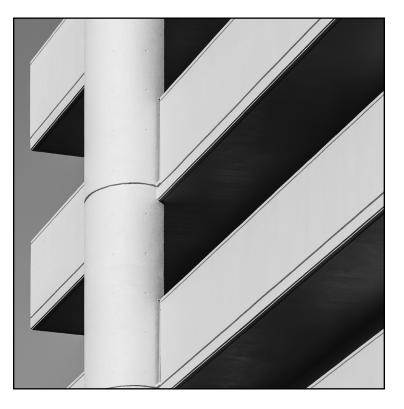
DANGER! TOXIC IF SWALLOWED

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).













WARRANTY DISCLAIMER

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