

Concrete Pool Shell Protector

MANUFACTURER

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PRODUCT DESCRIPTION

AQURON® CPSP™ offers an effective solution to water migration in concrete. It is an aqueous-borne, deep penetrating, sub-surface densifying, and molecular bonding treatment/solution.

BASIC USE

 $\textbf{AQURON} \textbf{®} \ \mathsf{CPSP^{TM}} \ \text{is a permanent, clear treatment/preservative/}$ sealant solution for new or existing pneumatically applied or poured-in-place concrete.

AQURON® CPSP™ will reduce permeability and porosity in sound concrete and will also aid in protecting the embedded steel.

AQURON® CPSP™ has a highly reactive catalytic agent that reacts with free alkali and or alkaline hydrates to internally produce a silica hydrogel that fills the pore spaces and the voids around aggregate. Furthermore, alkali is converted to a neutral compound structure, reducing the potential for chemical reactions. More density is added; additional bonding strength is provided and the permeability and porosity are reduced.

 $\textbf{AQURON} \ \textbf{CPSP}^{\intercal M}$ is an ideal product for concrete shells that are to be painted or plaster-coated since it enhances the bonding quality of the surface.

AQURON® CPSP™ reduces peeling, cracking and loss of bond caused by capillary moisture or internal chemical reactions.

AQURON® CPSP™ will not alter the appearance of the surface or physical characteristics. The use of **AQURON®** CPSP™ will reduce damages (spalling, etc.) caused by freeze-thaw cycles in sound concrete

AQURON® CPSP $^{\text{TM}}$ neutralizes existing internal corrosives such as acids and chlorides preventing internal chemical reactions.

 $\textbf{AQURON} \textbf{®} \ \mathsf{CPSP^{TM}} \ \text{retards the rusting or corroding of embedded}$ steel. Another added benefit of using $\mathbf{AQURON} \mathbf{@}\ \mathsf{CPSP^{TM}}$ is the reduction of EFFLORESCENCE staining due to the reduced ability of water to penetrate the shell and the ability of **AQURON®** CPSP™ to stabilize the concrete's chemical makeup.

AQURON® CPSPTM will also reduce the chance of chemically treated pool water from passing through the pool shell and leaching into the ground water supply.

BENEFITS

- Reduces moisture penetration
- · Reduces bleed through stains-EFFLORESCENCE, especially on Vanishing edge applications
- · Helps protect reinforcing steel
- Helps pool water chemical balance
- · Strengthens the concrete, Shotcrete, or Gunite pool shell
- · Reduces the effects of freeze-thaw cycles
- Deep penetration (3-5 inches)
- Water borne = environmentally safe
- Prevents or reduces pool chemicals from leaching into ground water supply
- Environmentally friendly
- No VOC/VOS content
- Enhances the cure (watering the shell surface, after the AQURON® CPSP™ is applied, is still recommended.)

APPLICABLE STANDARDS

CPSP meets or exceeds applicable standards.

- ASTM C672 Section 7 Water absorption
- ASTM C672 Section 9 Suction
- ASTM C672 Section10 Efflorescence
- ASTM C666 Freeze-thaw resistance
- ASTM C666 Salt attack resistance
- **DIN 1048**
- ASTM C192 Strengthens concrete
- AASHTO T260 Chloride ion content AASHTO T259-78 Chloride ion penetration
- VOC/VOS Compliant
- ASTM C309 Type 2 Class A Curing Compound

COMPOSITION

AQURON® CPSP™ has a highly reactive catalytic agent in a waterborne proprietary colloidal silica base that produces a silica hydrogel below the surface and inside the matrix of the concrete, Shotcrete or Gunite.

PRECAUTIONS

AOURON® CPSP™ cannot function if there are:

- (1) Other sealers on the concrete surface
- (2) Polymers in the mix
- (3) Rebound in pneumatically applied concrete
- Cover all glass. CPSP™ will etch glass.
- Cover everything not intended for product. Incidental damage may occur on unintended surfaces.
- Spills or spray droplets in contact with glass should be removed immediately by flushing with water.
- Some discoloration of aluminum can occur.
- Do not apply AQURON® CPSP™ when air and/or substrate temperatures are less than 40°F/4.5°C and will not decrease to less than 40°F/4.5°C for 6 hours.
- DO NOT ALLOW TO FREEZE

PHYSICAL PROPERTIES

Physical Liquid Color Clear Odor None Specific gravity 1.11± Flash point None рΗ 12± Toxicity None Boiling point 212°F/100°C Freeze temperature 32°F/0°C Hazardous vapors None Weight per gallon. 9.18lbs/4.16kg Environmental impact Neutral User-friendly

DO NOT ALLOW TO FREEZE Freeze harm Excellent Surface bond quality None Flammability None VOC/VOS content Excellent Resistance to UV Yes Paintable None Pollutants Non-hazardous Excellent

Waste disposal methods Resistance to abrasion Polymerization nil Solids before applied nil Solids after applied 100% Recommended coverage

150 sq. feet per US gallon/ 3.5 sq. meters per liter

INSTALLATION

Job Conditions

- 1. Penetration: It is essential that AQURON CPSP™ have access to the substrate. Any previous coatings must be removed. Abrasion of the surface may be required to allow penetration. To determine if AQURON® CPSP™ can penetrate, spritz the surface with water. If the water sits on top of the surface or beads up, abrading is required.
- Low Temperatures: Do not proceed with application of **QURON® CPSP™** when ambient temperature and/or substrate temperatures are less than 40°F/4.5°C or forecasted to drop below 40°F/4.5°C during the next 6 hours. Use temperature gun to determine.
- High Temperatures: Should ambient or substrate temperature be 95°F or higher, cool surface with sufficient water so that the surface stays damp. Disperse puddled water. Use temperature gun to determine.
- Wind: Caution should be taken in windy conditions. Do not allow product to contact surfaces not intended for CPSP application.
- <u>Dry:</u> If allowed to dry, **AQURON®** CPSP™ can etch glass or dull shiny aluminum. If contact is made with glass or aluminum, rinse surface immediately with water before **AQURON®** dries on surface.
- 6. Strength: Do not dilute. Use as supplied.
- Plaster Coat: Once AQURON® CPSP™ is applied to an existing (not a new shell), wait 24 hours or until surface is dry before applying a breathable plaster coat.

For new concrete, it is recommended to wet cure in accordance with ACI 506.2-95 section 3.8.

 Fractures: AQURON® CPSP™ only seals the concrete itself, not fractures.

APPLICATION PROCEDURES

For new or established pool or spa shells:

- 1. **AQURON® CPSP™** must be applied at 2000 psi with a high pressure airless sprayer with spray tip size as follows:
 - Steel troweled pool decking and smooth plaster .013
 - Shotcrete .015- 019
 - Gunite .019
 - Spray tip fan width should be 8"-12" wide.
- 2. Application of the material with the airless sprayer shall be at a 90 degree angle to the surface of the wall or floor.
- 3. Prior to applying AQURON® CPSP™, pre-wet area with water to cool concrete that is extremely hot (95°F/35°C or higher). Pooled and puddle areas must be dispersed. Continue to keep damp until AQURON® CPSP™ has been applied. For maximum penetration of AQURON® CPSP™ keep the pool shell moist while applying product. If necessary, continue to mist the surface prior to the application of product to keep moist.
- 4. AQURON® CPSP™ must be sprayed twice over the same area. The first application should be sprayed in an East-West direction. Spray the second application in a North-South direction, over the area just treated, as soon as at least 60% of the surface sheen from the first application has disappeared. Apply wet on wet. One gallon of AQURON® CPSP™ will cover two applications of 150 sq. ft. To calculate the number of gallons required, divide the number of square feet in the project by 150. We recommend applying 2 full applications to both sides of any raised walls.

- 5. Start application holding spray tip approximately 8"-10"/200-254mm from concrete surface, make application using overlapping spray pattern with a fanning motion at the end of each pass.
- 6. Entire area being treated is to be saturated, but do not allow **AQURON**[®] CPSP™ to puddle. Depending on temperature, disperse puddled areas with a broom 5-15 minutes after application is completed. The higher the temperature, the shorter the time that the sheen is allowed to stay. Do not allow puddles of **AQURON**[®] CPSP™ to dry.
- 7. For vertical walls, begin at the bottom using an East-West overlapping spray pattern. Work your way from the bottom to the top. As soon as the sheen from the first application has disappeared, go back over the same area just treated using a North-South overlapping spray pattern. When the product runs 3-4 inches below the spray, you have reached tolerance.
- 8. When treating weeping hydrostatic concrete, Shotcrete or Gunite, and on all above grade walls, four applications will be required as follows:
 - (1) Spray East-West as in step 3 of the Application Procedures
 - (2) Then spray North-South
 - (3) Immediately spray East-West again
 - (4) Then spray North-South
- 9. Important caution when applying coatings: following the application of AQURON® CPSP™: we recommend that the surface be thoroughly cleaned prior to coating to remove any potentially bond-breaking containments that may have been purged to the surface

CLEAN UP AND SAFETY

- Caution must be taken, as treated surfaces may be slippery until it has completely penetrated.
- No special clothing, breathing apparatus, goggles or gloves are necessary, but in enclosed areas it is advisable to wear an appropriate respirator to avoid possible irritation to breathing.
- Attention should be made to watches, eyeglasses, etc., as aQUROn® CPSP™ can etch glass or discolor aluminum if allowed to dry.
- Clean equipment using water and mild soap. Never store spray equipment without cleaning and following manufacture's recommendations for storage between usages.

SHELF LIFE

Contents inside of packaging has 1 year shelf life, provided **AQURON®** CPSP is kept tightly sealed in original container when not in use.

PACKAGING

nouron® CPSP™ is available in 5 gallon/18.9 liters and 55 gallon/208.2 liters drum size. **nouron**® CPSP™ is also available in bulk containers.

MAINTENANCE

Special maintenance of treated area is not required.

TECHNICAL SERVICES

Technical information and assistance may be obtained from your local dealer, or by calling the technical department of the **AQURON** Aquatics Division at 1-800-342-4649. E-mail: info@aquron.com

AQURON Corp. Headquarters (972) 722-5444 Toll Free (800) 342-4649

LIMITED WARRANTIES

AQURON PRODUCTS EFFECTIVELY ADDRESS PROBLEMS CAUSED BY MOISTURE INTRUSION WHEN PROPERLY APPLIED BY AQURON TRAINED KEY APPLICATORS. AQURON WILL WARRANT IT'S PRODUCTS, AS STATED AND PROVIDED WITH EACH AQURON PRODUCT, TO BE EFFECTIVE AGAINST MOISTURE INTRUSION THROUGH SOUND CONCRETE FOR A WARRANTY PERIOD OF ONE YEAR.

THE FOLLOWING LIMITATIONS APPLY TO THE AQURON PRODUCT WARRANTIES:

- ALL PRODUCTS SHALL BE APPLIED BY AQURON TRAINED KEY APPLICATORS IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS FOR THE WARRANTY TO BE EFFECTIVE.
- ALL WARRANTY REMEDIES ARE LIMITED TO REFUND OF THE PURCHASE PRICE FOR THE AMOUNT OF PRODUCT COVERING THE AFFECTED AREA
- MECHANICALLY RELATED MOISTURE MIGRATION IS SPECIFICALLY EXCLUDED FROM ANY AQURON WARRANTY
- ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO WARRANTIES FOR FITNESS FOR USE OR FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY DISCLAIMED, EXCLUDED AND WAIVED TO THE FULLEST EXTENT ALLOWED BY LAW.
- IT IS THE RESONSIBILITY OF THE KEY APPLICATOR TO DETERMINE FITNESS FOR USE.

For all Limited Warranty questions or for warranty service, contact Aguron Headquarters at (800) 342-4649.