

# CPSP™

## 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

**AQURON® CPSP™** is a permanent, clear treatment/preservative/sealant solution for new or existing pneumatically applied or poured-in-place concrete. **AQURON® CPSP™** will seal the matrix and significantly preserve its embedded steel.

**AQURON® CPSP™** is a highly reactive catalytic agent that reacts with free alkali and/or alkaline hydrates by internally producing 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 internal chemical reactions. More density is added; additional bonding strength is provided; and the pool shell is permanently, hydrostatically sealed from within.

**AQURON® CPSP™** 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™** prevents 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 significantly protect the pool shell from damages (spalling, etc.) caused by freeze-thaw cycles. **AQURON® CPSP™** neutralizes existing internal corrosives such as acids and chlorides preventing internal chemical reactions. **CPSP™** severely retards the rusting or corroding of embedded steel.

Another added benefit of using **AQURON® CPSP™** is the virtual elimination of EFFLORESCENCE staining due to the inability of water to penetrate the shell and the ability of **AQURON® CPSP™** to stabilize the concrete's chemical makeup. **AQURON® CPSP™** will also prevent 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
- Protects reinforcing steel
- Helps pool water chemical balance
- Strengthens the concrete, Shotcrete or Gunitite pool shell
- Protection from effects of freeze-thaw cycles
- Deep penetration (3 to 5 inches)
- Water borne = environmentally safe
- Prevents pool chemicals from leaching into ground water supply
- Environmentally friendly
- No VOC/VOS content
- Significantly enhances the cure (watering the shell surface, after the CPSP is applied, is still recommended).

### APPLICABLE STANDARDS

**CPSP meets or exceeds applicable standards.**

- ASTM C-672 Section 7 Water absorption
- ASTM-C-672 Section 9 Suction
- ASTM-C-672 Section 10 Efflorescence
- ASTM C-666 Freeze-thaw resistance
- ASTM C-666 Salt attack resistance
- DIN 1048
- ASTM C-192 Strengthens concrete
- AASHTO T260 Chloride ion content
- AASHTO T259-78 Chloride ion penetration
- VOC/VOS Compliant

### COMPOSITION

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

### PRECAUTIONS

**AQURON® 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.

### PHYSICAL PROPERTIES

Physical	Liquid
Color	Clear
Odor	None
Specific gravity	1.11±
Flash point	None
pH	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	Yes
Shelf life	Indefinite
Freeze harm	None (allow to thaw completely)
Surface bond quality	Excellent
Flammability	None
VOC/VOS content	None
Resistance to UV	Excellent
Paintable	Yes
Pollutants	None
Waste disposal methods	Non-hazardous
Resistance to abrasion	Excellent
Polymerization	nil
Solids before applied	nil
Solids after applied	100%
R-Factor	Increases up to 20
Recommended coverage	150 sq. feet per US gallon/ 3.5 sq. meters per liter

## INSTALLATION

### Job Conditions

- Penetration** It is essential that **AQUORON® 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 **AQUORON® 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 **AQUORON® 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.
- 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.
- Wind:** Caution should be taken in windy conditions. Do not allow product to contact surfaces not intended for CPSP application.
- Dry:** If allowed to dry, **AQUORON® CPSP™** can etch glass or dull shiny aluminum. If contact is made with glass or aluminum, rinse surface immediately with water before **AQUORON®** dries on surface.
- Strength:** Do not dilute. Use as supplied.
- Plaster Coat:** Once **AQUORON® 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:** **AQUORON® CPSP™** only seals the concrete itself, not fractures.

### Application Procedure

For new or established pool or spa shells:

- AQUORON® 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.
- Application of the material with the airless sprayer shall be at a 90 degree angle to the surface of the wall or floor.
- Prior to applying **AQUORON® 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 **AQUORON® CPSP™** has been applied.  
  
For maximum penetration of **AQUORON® CPSP™** keep the pool shell moist while applying product. If necessary, continue to mist the surface during the application of product to keep moist.
- AQUORON® 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 the surface sheen from the first application has dissipated. Apply wet on wet. One gallon of **AQUORON® 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.**
- Start application holding spray tip approximately 8"-12"/200-

300mm from concrete surface, make application using **overlapping spray pattern with a fanning motion at the end of each pass.**

- Entire area being treated is to be saturated, but do not allow **AQUORON® CPSP™** to puddle. Disperse puddled areas with a broom 15-30 minutes after application is completed. Do not allow puddles of **AQUORON® CPSP™** to dry.
- 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 treating weeping hydrostatic concrete, Shotcrete or Gunite, 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
- Important caution when applying coatings: following the application of **AQUORON® CPSP™**: we recommend that the surface be thoroughly cleaned prior to coating to remove any potentially bond-breaking contaminants that may have been purged to the surface.

### CLEAN-UP AND SAFETY

- Caution must be taken, as treated surfaces may be slippery until completely cured.
- 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 **AQUORON® 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 manufacturer's recommendations for storage between usages.

### SHELF LIFE

Shelf life is indefinite provided **CPSP™** is kept tightly sealed in original containers when not in use.

### PACKAGING

**AQUORON® CPSP™** is available in 5 gallon/18.9 liters and 55 gallon/208.2 liters drum size. **AQUORON® 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 **AQUORON** Aquatics Division at 1-800-342-4649. E-mail [aquaticsdivision@AQUORON.com](mailto:aquaticsdivision@AQUORON.com)

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

### LIMITED WARRANTIES

**AQUORON** products effectively address problems caused by moisture intrusion when properly applied by **Aquron** Trained Key Applicators. **Aquron** will warrant its products, as stated and provided with each **Aquron** product, to be effective against water intrusion for a warranty period of one-year. Two-year warranties are available if a warranty application is completed and approved before product application. **THE FOLLOWING LIMITATIONS APPLY TO THE AQUORON PRODUCT WARRANTIES:**

- ALL PRODUCTS SHALL BE APPLIED BY **AQUORON** 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 **AQUORON** 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.

**For all Limited Warranty questions or for warranty service, contact **Aquron** Headquarters at the numbers below.**

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