



CHEM-CRETE SofiX[®] CCC100

“Hydrophilic Moisture and Vapor Blocker”

MANUFACTURER

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PRODUCT DESCRIPTION

Chem-Crete SofiX CCC100 is a unique waterbased blend of catalyzed chemicals that permanently eliminate moisture transmission through concrete structures up to 10 lb. / 1000ft²/24 Hours.

The moisture blocking mechanism of Chem-Crete SofiX CCC100 occurs as a result of a crystallization process that takes place within the concrete capillaries and pores. The chemicals within Chem-Crete SofiX CCC100 react with calcium hydroxide in the concrete to produce insoluble hydrophilic crystals. The affinity of the crystals to moisture is extremely high. In the presence of hydrostatic pressure or under wet conditions, the crystals absorb moisture and immediately swell to block concrete pores and capillaries, thus preventing moisture penetration. Even in the absence of calcium hydroxide, the catalyzed chemicals of Chem-Crete SofiX CCC100 will still form hydrophilic crystals. The very low viscosity of Chem-Crete SofiX CCC100 allows it to penetrate deeply into a concrete substrate. The product protects, preserves and waterproofs without any surface film formation or color change.

USES

- Concrete Floors.
- Foundations and Slabs
- Reservoirs
- Industrial Plants
- Swimming Pools
- Subway Tunnels
- Elevator Pits

- Walls and Flooring in Parking Garages.

FEATURES

- High moisture, vapor blocking performance.
- Single component.
- Easy application.
- Penetrates concrete and seals capillary tracts and hairline cracks.
- Multiple functions: Blocking of moisture, vapor; sealing and bonding which increase adhesive properties for products such as: epoxy coatings, polyurethane coatings, asphalt coatings and paints.
- Cost effective.
- Non-toxic.
- Resists hydrostatic pressure.
- Exterior and interior applications.
- Permanently seals the pores and voids within the concrete substrate.

Treatable Materials:

Concrete, concrete block, mortar, plaster, stucco, terrazzo, exposed aggregate and any sand, aggregate cement combination.

APPLICATION

Methods of Application: Spray, roll or brush.

Tools Needed: Spray equipment, roller, brush, bristle broom or squeegee.

Surface Preparation: Surface must be clean, and free of paint, sealer, oil, adhesive, curing compound, form release and/or anything that will not allow Chem-Crete SofiX CCC100 to penetrate the substrate. All areas to be treated must be cleaned by scrubbing, or pressure washing to remove any surface dust, dirt or other contaminants. Chem-Crete SofiX CCC100 may be applied to damp surfaces as long as no standing water or puddles are present. Heavy contaminated areas must be cleaned using Chem-Crete CONCLEAN CCC 060 biodegradable concrete cleaner and a pressure washer

to help remove deeply penetrated areas.

1. **Test the moisture content of the substrate using the Quantitative Calcium Chloride test method (ASTM F1869-98).**
2. If the moisture content is below 9 lb./1000 ft²/24 hours, wet the surface slightly with clean water; then apply the first coat of Chem-Crete SofiX CCC100.
3. Apply the first coat of Chem-Crete SofiX CCC100 at a rate of 200 sq. ft. per gallon. The concrete or masonry substrate must remain wet with Chem-Crete SofiX CCC100 for at least 30 minutes.
4. After the concrete or masonry substrate is dry, normally 1 to 2 hours at 72°F. (21.1°C.), apply a second coat of Chem-Crete SofiX CCC100 at a rate of 200 sq. ft. per gallon making sure to keep the substrate wet with Chem-Crete SofiX CCC100 for at least 30 minutes.
5. Allow the surface to completely dry for at least 24 hours. During the drying stage, good circulation of air is needed and the room temperature should be kept close to standard conditions.
6. **Re-test the moisture transmission rate after 24 hours of application, as described above. If the moisture transmission rate remained higher than required, a third coat at a rate of 200 sq. ft. per gallon of Chem-Crete SofiX CCC100 is required.**
7. Once the moisture content drops to a reading within the limits specified by the end user or the floor covering manufacturer, the substrate must be cleaned to remove any surface crystals or efflorescence materials that might be pushed to the surface as a result of the treatment. Cleaning can be done by any method you may find convenient such as mopping, blowing, etc.

TECHNICAL DATA

- Specific Gravity 1.07
- Freeze Temperature 25°F. (-4°C.)
- Freeze Harm Complete
- Boiling Point 214°F. (105°C.)
- For Clean-Up Water
- Color Clear
- Odor None
- Toxicity None
- Flammability None
- Fumes None
- Environmental Hazards None
- Thinners None Required
- Drying Time 1-2 Hours
@77°F. (25°C.)

STANDARDS

Meets or Exceeds:

ASTM C-666 Freeze Thaw Testing

NCHRP #244 "Soak Test" Rev.

Bonding ASTM C-3359: 28% increase in epoxy adhesion or surface coating.

Hardening ASTM C-42: 40% increase in compressive strength at 14 days over untreated samples. 35% increase at 28 days over untreated samples.

Weathering ASTM G-23: Ultraviolet exposure has no adverse effect on samples treated with Chem-Crete SofiX CCC100.

ASTM C-309 Curing, Type 1, Class A

Curing Temperatures:

ATEC 25-01831

Penetration: Ink Test (Korea)

Permeability/Capillarity:

88.151.518 (French)

PACKAGING

Chem-Crete Sofix CCC100 is available in 5 and 55 gallon containers.

TECHNICAL SERVICES

Please contact International Chem-Crete Corporation for technical personnel.

LIMITATIONS

Do not apply Chem-Crete SofiX CCC100 in the following cases:

- When temperatures fall below 40°F.
- To areas previously treated with curing or sealing agents unless these coatings have been removed by chemical or mechanical means.
- When quantitative calcium chloride levels are above 10 lb./1000Ft.²/24 Hours.

Coverage: 2 coats, 200 sq. ft. per gallon each coat. Coverage depends on the temperature and porosity of the concrete.

Shelf Life: One year. Agitate bucket or drum before using.

WARRANTY

LIMITED WARRANTY: "International Chem-Crete Corporation warrants that, at the time and place we make shipment, our material will be of good quality and will conform to our published specifications in force on the date of the order."

DISCLAIMER: The information contained herein is included for illustrative purposes only and, to the best of our knowledge, is accurate and reliable. International Chem-Crete Corporation is not under any circumstances liable in connection with the use of this information. As International Chem-Crete Corporation has no control over the use to which others may put its products, it is recommended that the products be tested to determine if suitable for a specific application and/or our information is valid in a particular circumstance. Responsibility remains with the architect or engineer, contractor and owner for the design, application and proper installation of each product. Specifier and user shall determine suitability of products for specific application and assume all responsibilities in connection therewith.

Chem-Crete SofiX CCC100 Hydrophilic Moisture and Vapor Blocker is manufactured by:

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