



Chem-Crete®
SOFIX®
 CCC® 700

**Hydrophilic and Hygroscopic Water Vapor and Moisture Blocker
 for transmission rates up to 18 Lbs per 1000 ft² per 24 Hours**

PRODUCT DESCRIPTION

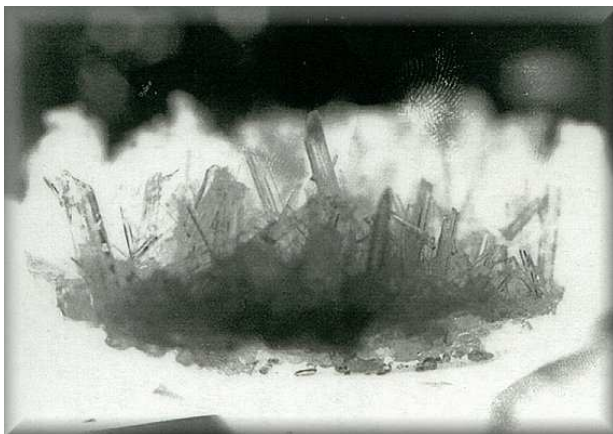
CHEM-CRETE® SOFIX® CCC® 700 is a unique, water-based blend of catalyzed chemicals that significantly reduces water vapor and moisture transmission through concrete and masonry structures. It is suitable for transmission rates up to 18 Lbs per 1000 ft², per 24 hours (ASTM F1869).

SOFIX CCC 700 produces water-insoluble, hydrophilic and hygroscopic crystals within the concrete capillaries, voids and pores. The affinity of the crystals to vapor and moisture is extremely high. In the presence of vapor and moisture, the hydrophilic crystals absorb the vapor and moisture, rapidly swelling and blocking the pores and capillaries. The hygroscopic crystals grow in the presence of vapor and moisture providing additional transmission blocking performance. Over time, hygroscopic crystals will continue to grow, providing ever-increasing transmission-blocking performance.

This product is designed to perform in applications that may be subject to continuous exposure to vapor and moisture. The product becomes inactive during dry conditions and is fully reactivated when vapor or moisture are present. The unique reactivation is the key in reducing vapor and moisture transmission.

The very low viscosity of SOFIX CCC 700 allows it to penetrate deeply into the substrate. The product protects, preserves and waterproofs without any surface film formation or color change. It will not interfere, and may improve, the adhesion properties of concrete coatings, paints and sealers. Treatable substrates include concrete, cementitious mortars and plasters, limestone. Areas of application:

- Slabs and foundations
- Walls
- Pits
- Pools
- Tunnels
- Reservoirs



Picture: microscopic image shows crystals of SOFIX CCC 700

FIELDS OF APPLICATION

- Concrete floor coverings (carpet, wood, vinyl, tile, etc.)
- Concrete coatings (epoxy, polyurethane, polyurea, etc.)
- Concrete sealers and stains
- Concrete wall and ceiling paints and architectural coatings
- Abatement of fungus, mold, mildew, algae and bacteria

PRODUCT FEATURES

- High vapor & moisture blocking performance
- Seals voids, capillaries and cracks in concrete up to 1/16th inch
- Single-component, ready-to-use and easily applied
- Low viscosity and deep penetration
- No VOC, environmentally-safe, non-toxic and odorless
- Interior/exterior, positive or negative applications
- Reduces permeability (CRD-C48-92, IDOT C4 Mix)

Product	Age, days	Coefficient of Permeability, cm/se
SOFIX CCC 700	28	4.164 x 10 ⁻¹⁰
Control (baseline)	28	6.335 x 10 ⁻⁷

- Reduces vapor and moisture emission by up to 67% (ASTM F-2659)

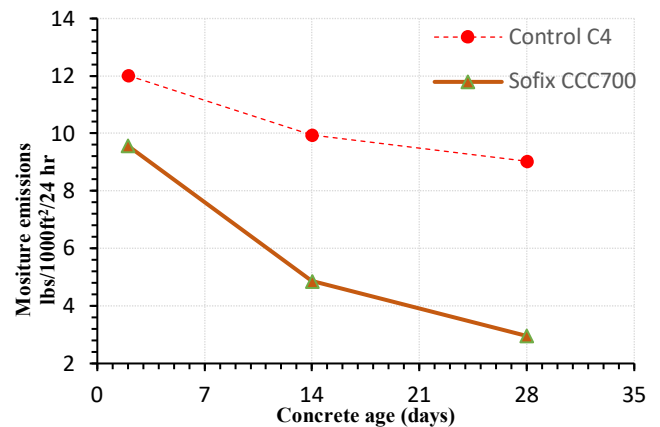


Figure: ASTM F-2659 Standard Guide for Preliminary Evaluation of Comparative Moisture Condition of Concrete, Gypsum Cement and Other Floor Slabs and Screeds Using a Non-Destructive Electronic Moisture Meter

- Increases the service life of concrete coatings (protects against debonding, blistering, bubbling and adhesion failures)
- Increases the service life of concrete paints, stains and sealers
- Increases adhesion of coatings, paints and sealers
- Reduces or prevents fungus, mold, mildew, algae and bacteria growth on concrete floors, walls and under floor coverings (carpet, wood, vinyl, etc.)
- Becomes an integral part of the treated substrate
- Reduces freeze-thaw damage
- Reduces or eliminates silicate dusting
- UV stable
- Can be applied to fresh or existing concrete

PACKAGING

Product	Packaging
CHEM-CRETE SOFIX CCC 700	1 GAL (3.785 LITER) JUG
	5 GAL (18.925 LITER) PAIL
	55 GAL (208 LITER) DRUM

TECHNICAL DATA

PROPERTY	VALUE
Specific Gravity @ 77°F/25°C (ASTM, D1475)	1.09
Freeze Temperature	25°F (-4°C)
For Cleaning	Water
Color	Clear
Odor	None
Flammability	None
Fumes During Treatment	None
Environmental Hazard	None
Thinners Required	None
Drying Time At 77°F (25°C)	2-3 hours

Applicable Standards:

- ❑ CRD-C48-92: Standard Test Method for Water Permeability of Concrete (concrete was subjected to water at a pressure of 460 feet/140 meters)
- ❑ ASTM F2659: Standard Guide for Preliminary Evaluation of Comparative Moisture Condition of Concrete, Gypsum Cement and Other Floor Slabs and Screeds Using a Non-Destructive Electronic Moisture Meter
- ❑ ASTM F1869: Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride
- ❑ ASTM D3359: Standard Test Method for Rating Adhesion by Tape Test
- ❑ ASTM G23: Standard Practice for Operating Light-Exposure Apparatus (Carbon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials

APPLICATION DATA

Methods of Application: Spray, roll or brush.

Apply using:

- Low-pressure sprayer
- Paint brush or roller
- Bristle broom
- Squeegee

Surface Preparation: Surface must be clean, free of surface efflorescence, paint, sealer, oil, adhesive, curing compound, form release agent and/or anything that will impede SOFIX CCC 700 penetration into the substrate.

Recommended cleaning methods include compressed air, pressure washing, scrubbing or other methods to remove surface dust, dirt or other contaminants.

Heavily contaminated areas must be cleaned using biodegradable concrete cleaners (CHEM-CRETE CONCLEAN CCC060, recommended) and a pressure washer to remove deeply penetrating contaminants.

SOFIX CCC 700 may be applied to damp surfaces free from standing water.

If installing resilient flooring, follow ASTM F710 (Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring)

Coverage: Two coats required, 200 ft² per gallon, per coat (4.91 m² per liter, per coat). Excessively porous substrates may require additional material. Apply with an even, uniform spreading rate.

Limitations: Do not apply under the following conditions:

- Temperature below 40°F (5°C)

Precautions: During application, do not allow product to come in contact with metal or glass. If contact occurs, immediately wash contacted area with water to prevent crystal formation.

CLEANING

Clean all equipment and tools with clean water immediately after use.

STORAGE

Two-year shelf life when stored in its original, unopened container, in a cool, dry place. Always agitate the product before using. **DO NOT ALLOW PRODUCT TO FREEZE.** Repeated freezing and thawing may cause damage to the product.

SAFETY PRECAUTIONS

As with all construction chemical products, adequate precautions and care must be taken during usage and storage. Avoid direct contact with foodstuff, eyes, skin and mouth. Contacted areas should be washed thoroughly with clean running water and soap. Always wear protective goggles and gloves. In case of eye contact, flush for fifteen minutes with warm water. If eye irritation persists, seek medical attention. In case of ingestion or swallowing, drink two glasses of clean water and seek medical attention. **KEEP OUT OF REACH OF CHILDREN.**

TECHNICAL ASSISTANCE

Contact International Chem-Crete for Technical Personnel.

WARRANTY

LIMITED WARRANTY: International Chem-Crete warrants that, at the time and place we make shipment, our materials will be of good quality and will conform to our published specifications in force on the date of acceptance 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 cannot, under any circumstances, make any guarantee of results or assume any obligation or liability in connection with the use of this information.

As International Chem-Crete has no control over product usage, it is recommended that the product be tested to determine suitability for a specific application and/or that 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 the suitability of products for specific application and assume all responsibilities in connection therewith. Any liability is limited to the replacement of material if proven faulty. AM020323-01.

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