CHEM-CRETE® CCC® 150

Cement-based Waterproofing Coating For Concrete Structures

PRODUCT DESCRIPTION

CHEM-CRETE® CCC® 150 (CCC® 150) is a Portland Cement-based with an acrylic additive, brush applied waterproof coating system for concrete and masonry surfaces. CCC® 150 is formulated similar to concrete, and becomes an integral part of the wall when properly applied, to give a uniform color and finish of the concrete substrate. CCC® 150 produces a textured finish, provides a decorative protection to the surface, which fills and seals the pores, voids and allows the substrate to breathe.

FIELDS OF APPLICATION

CCC® 150 waterproofs masonry and concrete surfaces, interior and exterior, above and below grade. Typical applications are:

- ☐ Reservoirs and water tanks.
- ☐ Bridges, tunnels.
- ☐ Foundations, parapets and basements.
- ☐ Swimming pools, toilets and fountains.
- ☐ Building walls, retaining walls.
- ☐ Sewage treatment plants and other surfaces subject to water penetration.

CCC® 150 is normally applied to the surface facing the water source. However, CCC® 150 is strong enough to withstand hydrostatic pressures from the negative side of the wall.

Compatibility: CCC® 150 is applied to concrete, block, brick, stone, pre-cast and formed concrete, stucco, cement plaster and other properly prepared, structurally sound masonry and concrete wall surfaces.

PRODUCT FEATURES

- ☐ Ready-to-use & only require addition of water.
- ☐ Suitable for interior and exterior applications.
- ☐ Excellent adhesion.
- ☐ Freeze thaw resistance.
- ☐ Waterproof and weatherproof.
- ☐ Allows substrate to breathe.
- ☐ Withstands hydrostatic pressure from negative side of application.
- ☐ Non-toxic and suitable for clean water applications.

PACKAGING

Product	Packaging
CHEM-CRETE® CCC® 150*	50 Lb (22.7 Kg) Bag

* Available is two colors; white and grey

TECHNICAL DATA

Property	Test Method	Test Criteria	Test Results
Absorption	ASTM C67	24 hours soak	4.5 %
		5 hours boil	4.6 %
Freeze Thaw Resistance	ASTM C67	Loss at 50 cycles Durability factor	1.1 %
	ASTM C666	-	101 after 300 cycles
Chloride Content	ASTM D114	-	0.0099%
Water Penetration & Leakage Through Masonry	ASTM E514	Results after coating of leaking wall. Extent of Damp Area – 72 hours - 0%. Maximum leakage Rate-Hour-None	
Salt Spray Resistance	-	300 hours exposure to 5% Solution @ 90F (32°C).	No adhesion loss or deterioration at test completion
Fungus Growth Resistance	FED-STD-141 Method 627-1	-	Resistant
Weatherometer, 6000 hours	ASTM G26	No crazing, cracking, chipping or flaking. Light chalk and color change. No other deterioration.	
Water Resistance - 2.5 mm thick coat	FSTTP-0035	No moisture pass after 8 hours equivalent to 158 kmph wind driven rain	
Flexural Strength, Psi (MPa), 28 days	ASTM C348	760 (5.2)	
Bond Strength, Psi (MPa)	ASTM D4541 Method A	62.22 (0.429)	
Initial Setting Time, @ 77°F (25°C)	ASTM C191	270 minutes	
Final Setting Time, @ 77°F (25°C)	ASTM C191	300 minutes	
Working Time, @ 77°F (25°C)	-	180 minutes	
Mixed Density, Lb/Gal (Kg/L)	ASTM D1475	14.94 (1.79)	

APPLICATION DATA

Surface Preparation: Surface must be structurally sound, clean and free from dirt, oil and all contaminants. New concrete and masonry surfaces must be cured for 28 days. Provide an absorptive surface on all substrates including smooth pre-cast and formed concrete, by abrading the surface. Remove form marks and other protrusions to prevent 'show through'. Repair all surface defects, cracks and voids before applying CCC® 150. Allow preparations to cure minimum 24 hours before coating. Dampen the substrate with clean water immediately before application of CCC® 150.

Leaking Areas: Basement Interior: Repair all joints with CEM220 Polymer Modified Cementitious Repair Mortar. Apply CEM290 Hydraulic Cement Water Plug where running water is a moisture problem. To relieve any excess water pressure, tap pressure relief holes at the base of wall. Leave holes open until surrounding CEM290 is firmly set (about 24 hours). Fill holes with CEM290 plug and coat immediately with CCC® 150. If ordinary dampness presents, brush one coat of CCC® 150 on the surface at the rate of 22.53 Lbs / 100 ft^2 (1.1 kg / m^2).

Mixing Procedure: CCC® 150 must be mechanically mixed, using a slow speed motor and mixing blade to thoroughly disperse all ingredients. Do not aerate mix.

Mixing Ratio: Approximately 8.165 liters (2 Gallons and 20 oz) of clean water is required for every 50 Lbs (22.70 Kg) bag of CCC® 150.

Pot Life: Pot life is approximately 20 minutes at 78.8°F (26°C). Mix only as much CCC® 150 as can be used in 20 minutes to prevent waste.

- ☐ For smooth, dense surfaces or for stronger adhesion and denseness, use EB550 SBR along with water as mixing liquid for mixing with CCC® 150.
- ☐ Blend 3 parts of clean water with one part of EB 550 SBR in a clean container to make up the mixing liquid.
- ☐ Pour approximately one half of the required mixing liquid into an empty clean container, and begin slow speed power mixing while slowly adding CCC® 150.
- ☐ Gradually add more CCC® 150 and mixing liquid to bring the mixture to the consistency of a heavy completely blended slurry mixture.
- ☐ Stop mixing; allow material to "Fatten" for 8-10 minutes.
- ☐ When "fattened", remix, and if necessary, add more mixing liquid to brushing consistency.

Application: Dampen the substrate thoroughly with clean water before starting application.

Hand Brush Method: Use a cement mason's brush. Load bristles with CCC® 150 and lay on a heavy coat using long, smooth, horizontal, strokes with sufficient material to fill all pores and voids. The final brush strokes should be in one direction to produce an even texture and finish.

Second Coat: Dampen the first coat with water within 4 hours after 1st coat has been applied prior to application of second coat.

Coverage: the coverage rates below are approximate and for estimating purposes only. Surface texture and porosity determines the total amount of CCC® 150 required.

- ☐ For ordinary wall waterproofing conditions, apply first coat of CCC® 150 at 22.53 lb/100 ft2 (1.1 kg/ m^2) and a second coat at 22.53 lb/100 ft2 (1.1 kg/ m^2).

For areas subjected to severe water pressures, double the above coverage. Total thickness of the coats will be approximately 1.5 - 3.0 mm thick.

Cautions:

- ☐ Do not apply to frozen or frost filled surfaces or when temperature is below 41°F (5°C) or expected to fall below 41°F (5°C) in 24 hours.
- ☐ Do not use on traffic bearing surfaces.
- ☐ Do not fill open cisterns, tanks, pools, etc. with water at least for 7 days after application completion.
- ☐ When using CCC® 150 in enclosed tanks or reservoirs, make sure that adequate ventilation is available during application and the total curing period.
- ☐ Occasionally, a white powdery substance known as efflorescence appears on masonry walls due to moisture carrying soluble salts to the surface. If this is present on the surface prior to application of CCC® 150 it must be removed with a wire brush or 10% muriatic acid solution and thoroughly washed-off. If this efflorescence appears after application of CCC® 150, it will eventually work its way out over a period of time.
- ☐ Measure water accurately to prevent strength reduction. Do not use additives such as retarders, set accelerators, calcium chloride or additional sand.
- ☐ Do not place CCC® 150 when temperatures are below or expected to fall below 1-2 °C within 72 hours.

CLEANING

Clean all mixing and application equipment with water immediately after use.

SAFETY PRECAUTIONS

CCC® 150 is non-flammable and non-toxic in nature. Avoid contact with eyes and skin as it may cause irritation due to its alkaline nature. Splashes of CCC® 150 should be washed off immediately with clean water. Wear necessary gloves and dust mask.

STORAGE

CHEM-CRETE CCC150 has a shelf life of minimum 12 months when stored in cool, dry conditions in unopened bags.

TECHNICAL ASSISTANCE

Please contact International Chem-Crete Corporation for Technical Personnel.

WARRANTY

LIMITED WARRANTY: International Chem-Crete Inc. 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 Inc. is not under any circumstances liable to connection with the use of information. As International Chem-Crete Inc. has no control over the use to which others may put its products, it is recommended that the products be tested to determine the suitability for specific applications and/or our information is valid in particular circumstances. Responsibility remains with the architect or engineer, contractor and owner of the design, application and proper installation of each product. Specifier and user shall determine the suitability of the product for specific application and assume all responsibility in connection therewith. AM180319.

Manufactured By:

International Chem-Crete Inc., 800 Security Row, Richardson, TX 75081. U.S.A
Tel: (972) 671-6477, Fax: (972) 238-0307
contactus@chem-crete.com www.chem-crete.com