CHEM-CRETE® FLEX CCC900

Two-Component, Acrylic Modified, Flexible Cementitious Coating

PRODUCT DESCRIPTION

CHEM-CRETE FLEX CCC900 is a two-component, thixotropic, cementitious acrylic modified flexible coating system with a high adhesion to concrete, masonry and steel. CHEM-CRETE FLEX CCC900 forms a hard, highly alkaline waterproof coating with a degree of elasticity, which protects the concrete or other substrates from the effect of aggressive acid gases, moisture and chlorides. CHEM-CRETE FLEX CCC900 has good chemical resistance to gasoline, diesel oil, sodium hydroxide, calcium chloride and sewage.

BASIC USES

CHEM-CRETE FLEX CCC900 can be use to waterproof concrete, concrete masonry unit blocks and bricks, and cement-rendering. It protects concrete against the effects of free-thaw cycles, de-icing salt, carbon dioxide, acid gases, dilute acids and alkalis.

Areas of application include but not limited to:

- ☐ Waterproofing of water tanks.
- ☐ Sealing internal basement and cellar walls against dampness.
- ☐ Protection of concrete structures in marine environments
- ☐ Coating of sewage and water channels.

ADVANTAGES

- ☐ Economical and easy to apply by brushing, troweling or spraying.
- ☐ Good flexibility which make it ideal for coating small movement cracks
- ☐ Excellent adhesion, bonds to porous and non-porous surfaces
- ☐ Excellent resistance to CO_2 and dilute acids.
- ☐ Non-toxic and no VOCs.
- ☐ Allows substrate to breathe.
- ☐ Resists up to 70 meters (230 ft) water head of pressure.
- ☐ High resistance to chloride ion diffusion.

PACKAGING

Product	Packaging
CHEM-CRETE FLEX CCC900	66.67 Lb (30.24 kg) Unit

One unit of CHEM-CRETE FLEX CCC900 consists of the following:

Part A (Powder)	50 Lb (22.68 Kg) Bag
Part B (Liquid)	16.67 Lb (7.56 Kg) Pail

CHEM-CRETE FLEX CCC900 is available in the flowing color combinations:

FINISHED COLOR	PART A	PART B
Light Grey	Grey Powder	White Liquid
White	White Powder	White Liquid
Standard Blue	Grey Powder	Blue Liquid
Standard Green	Grey Powder	Green Liquid
Light Blue	White Powder	Blue Liquid
Light Green	White Powder	Green Liquid

TECHNICAL DATA

Property	Value @ 77F (25°C)	Standard
Mixed Density, Lb/Gal (kg/L)	15.4 (1.85)	ASTM D1475
Pot Life, minute	> 240	-
Initial Setting Time, hours	> 6	ASTM C191
Final Setting Time, hours	> 6	ASTM C191
Adhesion to Concrete, Psi (MPa) 7 days	191.45 (1.32) Concrete Failure	ASTM D4541 Method A
Water Permeability, perm	3.07 *	ASTM E96
Salt Spray Resistance	300 hours = no effect	ASTM B117
Elongation	18%	ASTM D522
VOC, grams/Liter	0	-
Resistance to water pressure		
At 1 mm coating thickness	1 bar no Leakage	DIN 1048
At 2 mm coating thickness	3 bars no leakage	DIN 1048

* Test performed at two coats of 80 mils (2 mm) thickness.

Recommended Water Pressure's Application Rates:

Pressure	Coverage Rate
14.5 psi (1 bar)	41 Lb / 100 ft² (2 kg/m²)
43.5 psi (3 bar)	82 Lb / 100 ft² (4 kg/m²)
101.5 psi (7 bar)	123 Lb / 100 ft² (6 kg/m²)

Coverage: 0.36 Lb/ft² **(**1.76 kg/m²) for 40 mil (1 mm) thickness coating. To insure total protection, two coats are recommended. Using this coverage rate, one unit of CHEM-CRETE FLEX CCC900 will cover up to 185 ft² (17.18 m²). Variation in coverage rate might occur depending on the application uniformity and the substrate porosity.

Chemical Resistance: Good chemical resistance to gasoline, diesel oil, sodium hydroxide, calcium chloride and sewage. Coated surfaces exhibit good resistance to mild acids.

APPLICATION DATA

Surface Preparation: The areas to be treated must be free from all grease, oil, dust, residual curing compound, mold release agent or other contaminants that could impair adhesion. Smooth surfaces should be roughened. All loose material and surface laitance should be removed by shot blasting or hydro jetting. Mechanical wire brushing may be appropriate for small areas.

Spalled concrete should be cut back to sound concrete and leveled with suitable cementitious repair mortar such as CEM220. Conventional concrete curing compounds should be removed before application of CHEM-CRETE FLEX CCC900.

CHEM-CRTE CEM241 can be used to seal any existing pin holes.

Mixing: CHEM-CRETE FLEX CCC900 is supplied in pre-measured units and should be mixed on site utilizing clean containers. Slowly add the powder to the liquid and mix using slow speed drill fitted with suitable paddle. The workability can be increased by addition of small amounts of clean water at maximum of 12 FL oz (355 milliliters) per 67.67 Unit of CHEM-CRETE FLEX CCC900.

Placing: CHEM-CRETE FLEX CCC900 is best applied using spray techniques. A stiff bristle brush or roller may be employed and trowel application can be undertaken as necessary. Apply the first coat approximately 40 mil (1 mm) thick onto the prepared substrate. To ensure total protection, a second coat should be applied in the same way after waiting 30 minutes depending on the temperature (when the first coat is stable but not fully set).

CLEANING

All tools should be cleaned with water immediately after use.

STORAGE

Store in dry frost-free conditions at moderate temperatures no greater than 95ºF (35ºC). Protect the liquid Part B from freezing.

SAFETY PRECAUTIONS

As with all chemical products, care should be taken during use and storage to avoid contact with eye, mouth, skin, and foodstuffs. Treat splashes to eye and skin immediately. If accidentally ingested seek immediate medical attention.

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.

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