ChemMasters

SPECIALTY CONSTRUCTION PRODUCTS

CHEMSEAL

WATERPROOF CEMENT BASED COATING FOR CONCRETE & MASONRY

P R O D U C T D A T A

DESCRIPTION

CHEMSEAL is a portland cement based coating for concrete and masonry that resists both positive and negative hydrostatic pressure. **CHEMSEAL** fills and seals the pores and voids in the surface imparting strength, durability and uniform appearance. **CHEMSEAL** is available in a variety of standard colors for use on above grade, interior or exterior applications and in a foundation gray color for use below ground. When mixed with Cretelox, latex polymer modifier, Chemseal develops a highly durable, low maintenance, water-proof barrier

USES

CHEMSEAL is typically applied to concrete or masonry to water proof and improve the appearance of any concrete or masonry surface. Typical applications include:

- Interior basement walls
- Exterior foundation walls
- Pools or brine tanks
- Exterior walls of block, brick or concrete buildings.
- Cisterns, septic tanks or sewers
- Tunnel walls
- Light pedestrian horizontal surfaces
- Water treatment plants

ADVANTAGES

- Permanently waterproofs
- Allows vapor transmission
- Does not support growth of mold or mildew
- Crack bridging up to 1/16" (1.6mm)
- UV resistant
- Will not peel, blister or chip
- Solvent / odor free - 0 VOCs
- Heavily bodied to fill voids and cracks
- Provides a uniform decorative appearance
- Non toxic - suitable for use in potable water storage facilities

TECHNICAL DATA

Compressive Strength (ASTM C-109)

28 days	5,000 psi (34.5 MPa)

Tensile Strength (ASTM C-109)

7 days	225 psi (1.6 MPa)
28 days	400 psi (2.8 MPa)

Absorption (ASTM C-67)

24 hours	< 3.25%

Shore D Hardness (TTP 0035)

21 days	50

Wind Driven Rain Resistance

(Fed. Spec. TT-C-555-B)	20 hours @ 150 mph
Water Penetration	none
Blister Density/Size	none

Weatherometer (ASTM D-822)

5,000 hour test reveals no chalking, checking, cracking, scaling, blistering or any other deterioration

Freeze - Thaw Resistance

No cracking or deterioration after 100 cycles

Salt Spray Resistance

No deterioration or loss of adhesion after 500 hrs. Rating of "0" indicating no spalling.
(Control sample had a rating of "5" indicating serious spalling)

Fungus Growth (Fed.Test 141, Method 6271)

28 days	none

Water Permeance

After Coating Leaking Wall (ASTM C514)

Extent of damp area	0%
Maximum leakage	none
Leakage rate	none
Permeance rating	excellent

PACKAGING

CHEMSEAL is package in 50 pound (22.7 kg) poly lined bags (56 per pallet). Cretelox is packaged in 1 gallon (3.7 L) jugs, 5 gallon (18.9 L) pails and 55 gallon (207.9 L) drums

ESTIMATING GUIDE

FIRST COAT: Typical application rate for **CHEMSEAL** is 225 square feet (21 M^2) per bag. This will give a dry film coat of 60 mils.

SECOND COAT: The application rate of the second coat will vary depending on the conditions and the application. For most applications, the coverage rate will be 450 square feet (42 M^2) per bag. At this rate, the total thickness of the two coats of

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ChemSeal will form a dry film coating of 1/16 inch (1.6 mm) or 90 mils.

In higher hydrostatic pressure applications (over 15 psi) or in negative side waterproofing conditions, the second coat should be applied at 225 square feet (21 M^2) per bag. At this rate, the two coat system will be 120 mils thick.

Directions

Surface Preparation: Apply **Chemseal** to a clean, structurally sound surface. Remove efflorescence, salt, deteriorated concrete or masonry, dirt, oils, waxes, form release agents, curing compounds and paints. Eliminate mildew, mold or fungus on the wall by washing with a chlorine bleach solution and rinsing well prior to application of **ChemSeal**.

Repair all cracks and voids. Grout around pipes and conduit with **ChemPlug** hydraulic cement. If necessary, repoint joints at wall / slab intersections. To prevent leakage at this joint, chip the crack and apply a cove of **ChemPlug**. Drill weep holes at the base of any wall with an active pressure leak temporarily relieve water pressure. Weep holes may be plugged 48 hours after ChemSeal application.

Mixing: Each 50 pound bag of **ChemSeal** will require 6 to 8 quarts (5.7-7.5 L) of mixing liquid. The amount of mixing liquid used will vary depending on the consistency of the **ChemSeal** desired. Use **Cretelox** acrylic admixture as part of the mixing liquid for optimum results with all **ChemSeal** applications. **Cretelox** improves the chemical, impact and abrasion resistance of **ChemSeal** as well as increasing the bond strength. When using **Cretelox**, in most conditions, the mixing liquid will consist of 1 part **Cretelox** to 3 parts potable water.

Use 1 part **Cretelox** to 2 parts water as the mixing liquid for **ChemSeal** when it is applied to dense brick, block, tile or if applying to weak, deteriorated or previously painted surfaces. Also use this mixing liquid ratio for swimming pools, cisterns, reservoirs, or sewage treatment facilities.

When making a trowelable mix, 25 pounds (11 kg) of clean silica sand may be added to every 50 pounds (22.7 kg) bag of **ChemSeal.**

Blend a measured amount of **Cretelox** and water to equal 2 allons (7.6 liters) of mixing liquid per 50 pound (22.7 kg) bag. If silica sand is to be included in the mix, preblend 25 pounds (11kg) of sand to each bag of **ChemSeal**.

Pour half or the mixing liquid required for the batch into an empty, clean mixing container and begin slow speed mixing with a drill and paddle. Do not entrain air. Slowly add **ChemSeal** to the mix. Add more mixing liquid as needed to bring the mix to a heavy pancake batter consistency.

Stop the mixer and allow the mixture to fatten for 10 minutes. Remix and, if necessary, add additional mixing liquid to reduce to brushing consistency. Properly blended material should cling to a masonry brush without dripping.

Pot life is 60 minutes at 70ºF (21ºC). Higher temperatures and low humidity may significantly reduce pot life.

General Application Instructions

Prior to applying any **ChemSeal,** thoroughly wet the substrate by fog spraying with potable water. On hot days, exterior applications may require repeated wetting. Wetting is required to prevent a dry surface from sucking moisture away from the **ChemSeal**.

Apply with a mortar brush, trowel or textured spray equipment. Typical application for the first coat is 60 mils. Do not spread too thin. Trace mortar joints to insure they are completely filled. Finish brush strokes in one direction if appearance is important. Avoid stopping finish coats in the middle of a wall as this may cause lap marks. Work towards a natural breaking point such as a corner, column or control joint. For maximum waterproofing and durability, a second coat is recommended. The second coat may be applied from 30-60 mils over the first coat. Use thicker topcoats when area being coated is subjected to negative side water pressure Thinner topcoats are sufficient for exterior vertical walls, marine aquarium / zoo tanks or swimming pools. When applying a second coat of pigmented **ChemSeal**, allow the first coat to cure for a couple days. The delay will reduce suction shadowing and give greater color uniformity.

Storage

Cover unopened bags and store on pallet in a cool, dry area. Shelf life of properly stored material is 18 months from date of manufacture.

Cautions

Do not apply if rain is expected within 24 hours or if temperature is above 90ºF (32ºC) or below 40ºF(4ºC)

Allow to cure 10 days before immersion in water.

May cause eye and respiratory tract irritation. Over exposure may cause skin irritation. Do not take internally. Keep out of reach of children.

Make certain that the most current versions of the product data sheet and MSDS are being used. Go to www.chemmasters.net or contact ChemMasters customer service at 1.800.486.7866 to verify the most current version.

Proper application is the responsibility of the user. ChemMasters can only make technical recommendations and cannot provide quality control on the jobsite.

This Product is Formulated and Labeled for Industrial and Commercial Use Only

FOR BEST RESULTS AND SAFEST USAGE, USER IS SPECIFICALLY DIRECTED TO CONSULT THE CURRENT MATERIAL SAFETY DATA SHEET AND PACKAGE LABEL FOR THIS PRODUCT

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