

REPORT

LAST UPDATE: (March 2020)

REDUCING VAPOR TRANSMISSION for the Flooring Industry

PROTEC III: Original The Original Chemical Cure

DESCRIPTION

Protec III: Original is a water-based penetrating concrete treatment. Protec III: Original concrete treatment is the permanent answer for the flooring industry. Protec III penetrates the concrete surface which chemically reacts with the free lime in the concrete and creates CSH (calcium silicate hydrate). This fills the pores in the concrete which locks in moisture, with the additional benefit of hardening and dust- proofing the concrete surface.

TYPICAL PROBLEMS PROTEC III CHEM RX SOLVES

- Carbonation
- Dusting
- Moisture/Vapor Pressures
- PH Fluctuations

Protec III: Original once installed properly will reduce moisture readings from as high as 8 lb per 1000 sq. feet per 24 hours to the recommended maximum installation level for carpet, wood and resilient flooring of 3 lbs. per 1000 square feet per 24 hours within 72 hours. Protec III: Original has the additional benefit of hindering bacteria and fungi (mildew) growth.

CARBONATION AND DUSTING

Up till now, dusting or carbonated concrete required expensive grinding and removal of the affected area. With Protec III: Original those days are over. With the application of Protec III: Original the concrete surface is now hard, strong and dust free. For heavily dusting concrete use additional coats of Protec III: Original see TDS for information and application instructions.

PH FLUCTUATIONS

Protec III: Original neutralizes contaminants and alkalinity and controls pH levels in the concrete indefinitely.

Protec III: Original is not a colloidal silicate. Colloidals tend to naturally leave a dusty concrete surface. This dust has to be thoroughly removed otherwise adhesion of flooring materials could be compromised.

BONDING

On poor concrete Protec III: Original increases bond strength by up to 300%.

BENEFITS

- Leaves no surface membrane
- Dust-proofs
- Moisture Retarder
- Dramatically hardens carbonated concrete.
- Increases the life of the treated surface
- Compatible with all glues and adhesives
- Leaves an ideal surface for flooring and coatings

USES

Warehouse floors, hospitals, commercial buildings, parkades.

COVERAGE

Vapor Pressure: approximately 250 ft²/gallon (6.1 m²/litre)

Dusting and Carbonated Concrete: approximately 125-150 ft²/gallon (3.1-3.7 m²/litre)

PHYSICAL CHARACTERISTICS

Physical State: Liquid

Color: Opaque

Odor: Mild

Toxicity: None

Cleanup: Water

Flash Point: None

Freezing Point: 0°C

Cure: 72 Hours

Recoatibility: After 4 hours

VOC Compliant: Yes - 0 g/litre

CAUTIONS

- Apply product at room temperature.
- Check for evidence of curing compounds and surface porosity by pouring a little water on the concrete and watch for penetration. If there is no sign of penetration within 90 seconds, then the concrete should be mechanically prepared by sanding, grinding etc.
- Make sure all paint, plaster, dust and latiance is removed to allow full efficient penetration.
- For spills, dilute and flush with water.



APPLICABLE STANDARDS

ASTM C418 - Abrasion 67% Decrease

ASTM 642-90 - Porosity 18% Reduction

ASTM 642-90-Water Absorption 30%

Decrease Water Permeability - 50% to 70%

Decrease depending on concrete quality and porosity

SURFACE PREPARATION

- Old dirty concrete should be cleaned thoroughly removing all old glue and adhesives, oils, and any other contaminants. After cleaning, rinse surface thoroughly with water.
- Allow 12 hours for the surface to dry before application of Protec III: Original.
- If concrete is clean, thoroughly sweep area of dust and debris.
- Apply Protec III: Original before repairing cracks in the sub-floor or applying patching or floor-leveling compounds.
- Protec III: Original will not prevent water from coming up through cracks in the concrete floor.
- Follow manufacturer's directions for waterproofing concrete crack sealers and cementitious patching and leveling compounds.

APPLICATION

CARBONATED AND DUSTING CONCRETE

Apply Protec III: Original at a rate of 125- 150 ft²/gallon (3.1-3.7 m²/litre) making sure to thoroughly saturate the concrete surface. If dusting is severe we recommend additional coats of Protec III: Original. Apply Protec III: Original by sprayer or microfiber pad.

When spraying, a spray nozzle that produces a flow of 1/2 gallon per minute under 40 psi is recommended. Make sure concrete stays wet for 30 minutes by re-applying more Protec III: Original or by re- distributing the existing product using a micro-fiber pad.

Do not allow the product to form puddles.

After 30 minutes let the surface dry, no water flushing is needed.

After 1st coat has dried for 4 hours apply the 2nd coat of Protec III: Original.

Follow the same procedure as the 1st coat. Two to 3 coats are required. Once floor has dried for 24 hours, sweep floor clean.

VAPOUR PRESSURE AND PH CONTROL

Apply Protec III: Original at a rate of 250 ft²/gallon (6.1 m²/litre) making sure to thoroughly saturate the concrete surface. Moisten the surface with Protec III: Original by sprayer or microfiber pad. When spraying, a spray nozzle that produces a flow of .25 gpm under 40 psi is recommended. Spray in a fine fog pattern.

Make sure concrete stays wet for 30 minutes by re-applying more Protec III: Original or by re-distributing the existing product using a micro-fiber pad.

Do not allow the product to form puddles. After 30 minutes let the surface dry, no water flushing is needed. After 1st coat has dried for 4 hours apply the 2nd coat of Protec III: Original if required.

Follow the same procedure as the 1st coat.

Conduct moisture testing using an anhydrous calcium chloride test kit according to ASTM F-1869 test method, and in accordance with the floor manufacturer's recommendations for acceptable sub-floor moisture, after 72 hours and before the flooring installation begins.

If the test results are within the recommendation, proceed with the flooring installation. If the initial 72-hour moisture reading is not within the recommendations, wait an additional 72 hours and retest. A third application of sealer is rarely needed, but may be necessary in severe cases. If the retest moisture reading is within recommendations, proceed with the flooring installation. If the retest reading indicates the moisture is still too high, call Technical Support for assistance. Protec III: Original is not recommended or warranted for below grade concrete floors if they are to be covered with flooring or paint.

CLEAN-UP: water

SHELF-LIFE: 4 years in unopened original container

PACKAGING

5 gallon (18.9 Litre) Pails

55 gallon (205 Litre) Drums

1040 Litre Totes

WARRANTY

We warrant our products to be of good quality and will replace any products proved defective. Satisfactory results depend not only upon quality products, but also upon many factors beyond our control. The user shall determine the suitability of the product for the intended use and assume all risks and liability in connection therewith. Therefore, except for such replacement of product, Cornerstone Coatings makes no warranty or guarantee express or implied including warranties of fitness for a particular purpose or merchantability, respecting its products, and Cornerstone Coatings shall have no other liability with respect thereto. This warranty supersedes all other warranties express or implied.