

# VC-5

## MOISTURE VAPOR CONTROL - NEW CONCRETE

SINAK VC-5 is a ready to use, single component, zero VOC Moisture Vapor Control System that eliminates flooring failures due to moisture, moisture vapor, hydrostatic pressure, osmotic pressure, and alkalinity emanating from or through new “green” concrete. VC-5 is spray applied to freshly placed concrete and replaces the Division 3 Cure, Seal, and includes a 20-Year moisture, moisture vapor, alkalinity, hydrostatic, and osmotic pressure warranty. VC-5 is designed for use on all structural and lightweight concrete to receive finished flooring, roofing, or coatings.

VC-5 permanently penetrates the concrete substrate and restricts permeability & moisture vapor drive at the bond line, providing an improved surface for flooring, roofing, and coating performance. VC-5 is not a bond breaker, and does not form a film or residue on the surface. VC-5 is compatible with all porous & non-porous adhesives, floor coverings, roofing systems, polishing systems, and surface treatments. Use of VC-5 allows for same day slab access and installation of any flooring, roofing, or coating 7 days after initial concrete placement.

VC-5 includes a non-prorated, fully transferable, 20-year labor, material, and adhesive bond warranty that covers replacement costs of all adhesives, coating, roofing, and flooring systems. The VC-5 warranty allows mechanical surface profiling up to 1/4” amplitude. VC-5 is a true single component system that replaces all other costly and labor intensive moisture mitigation and remediation products. VC-5 is a cost-effective preventative solution that saves weeks off the construction schedule and eliminates delays caused by concrete moisture failures. VC-5 is class 55 non-hazardous, non-toxic, contains no solvents, is listed as UL GREENGUARD Gold Certified, Health Product Declaration (HPD), Environmental Product Declaration (EPD), Declare Label LBC Red List Free, Super Compliant with SCAQMD and Buy American Act compliant. VC-5’s stable formula has an infinite shelf life and does not expire.

## FEATURES & BENEFITS

- 20-Year Flooring & Roofing Replacement Warranty
- Compatible with all Flooring, Coating, & Roofing Systems
- Compatible with all Porous & Non-porous Adhesives
- Eliminates Moisture Testing
- Eliminates Off Gassing & Pinholing
- Eliminates Concrete Curling
- Reduces Concrete Permeability
- Flooring or Roofing Installation 7 days after concrete placement
- Surface profiling up to 1/4” covered under Warranty
- Hydrostatic & Osmotic Pressure covered under Warranty
- Controls Moisture Vapor
- Controls Alkalinity
- Exceeds ASTM C-309, C-1315, & C-39 Specifications
- Compatible with 1L Concrete

## WHERE TO USE VC-5

- Structural & Lightweight Concrete
- Vertical Cast in Place Concrete
- Below Grade
- Above Grade
- Slab On Grade
- Pan Decks
- Topping Slabs
- 1L Concrete
- Cold Storage
- Sport Flooring
- Medical Facilities
- Schools
- Data Centers
- Concrete to Receive Moisture Sensitive Flooring, Roofing, or Coating
- Concrete to Receive Hot or Cold Applied Roofing



## SUSTAINABLE DESIGN REQUIREMENTS

- Zero VOCs
- UL 2818 Gold - GREENGUARD® Gold Certified
- Environmental Product Declaration
- LBC Red List Free Declare Label
- Health Product Declaration
- Listed as Super-Compliant by the South Coast Air Quality Management District (SCAQMD)
- Exceeds the regulatory limits in the SCAQMD Rule 1113
- Meets the requirements to contribute for LEED credit in the following areas: EQ Credit 1.0, 4.1, 4.3, EQ Credit 10 3.1, MR Credit 5.1 and 5.2

## TESTING

- ASTM C-39** (Compressive Strength)
  - Meets or exceeds 28-day water cure
- ASTM C-309/C-1315: TYPE 1 CLASS A**
  - Exceeds water retention of less than 0.40 kg/m<sup>2</sup>
- ASTM D-3359-23** (Test Method for Rating Adhesion)
  - Passed
- ASTM D-4263:** (Concrete Moisture Test)
  - Passed
- ASTM E-96:** (Water Vapor Transmission)
  - 0.08 grams/hr m<sup>2</sup>
- ASTM F-1869:** (Calcium Chloride)
  - <5lbs per 1000 sq ft
- ASTM F-2170:** (Relative Humidity)
  - 100% RH Covered under warranty
- ASTM F-710-21:**  
(Standard Practice for Preparing Concrete Floors)
  - Compliant

## COVERAGE RATES

Two-coat coverage rate is 300 sq ft per gallon (7 sq m per liter) for horizontal or vertical surfaces.

## INSTALLATION

Installation should be continuous. VC-5 application should begin after the surface is firm enough to tolerate foot traffic without surface bruising or immediately after early entry saw cutting. Apply a small test area to confirm penetration. If product beads on the surface and does not penetrate, contact SINAK for technical support. If rain should occur at any time during this process, see '*Interrupted Installation*' at the end of this section.

1. Protect objects and areas not to be treated from spillage or overspray.
2. Apply first coat of VC-5 uniformly wetting the surface with an airless or tank-type sprayer.

**DO NOT** allow VC-5 to puddle or flood the surface.

Drying time will vary from 10 to 30 minutes depending on temperature and environment.

**NOTE:** "Dry" means dry to the touch

3. Immediately after the first coat is dry, apply a second coat. Apply the second coat perpendicular to the first coat to create a crosshatched pattern.
4. Pay special attention to apply material in joints and on slab edges. Treatment of these areas will eliminate slab curl.
5. Clean all equipment with warm soapy water.

## VERTICAL CAST-IN-PLACE INSTALLATION

1. Application may begin immediately after forms have been removed.
2. Apply the first coat of VC-5 uniformly wetting the surface with an airless or tank-type sprayer.
3. Verify the first coat has dried to the touch before beginning the second coat.
4. Apply the second coat uniformly wetting the surface.

**NOTE:** Flooring, roofing, or coating installation may begin seven days after concrete placement on areas treated with VC-5. SINAK recommends that all surface preparation adhere to the coating manufacturer's written instructions and a field bond test be conducted prior to the coating, flooring, or roofing installation. Hardwood and engineered glue down floors (may) require an application of SINAK V-Poxy. SINAK allows for a MAXIMUM of 0.50 water to cement ratio for warranty compliance. As a best practice, do not apply VC-5 during dew point.

**NOTE:** The SINAK VC-5 Warranty application may begin immediately after installation. Warranty Applications must be initiated within twelve (12) months of the original date of application. Visit [www.SINAK.com](http://www.SINAK.com) for warranty application information.

## INTERRUPTED INSTALLATION

If the application should be interrupted by rain, mark the place of interruption and continue the application as soon as weather permits. If the delay exceeds 4 hours contact SINAK immediately.

## HOT WEATHER INSTALLATION

In hot (above 100°F or 38°C), dry and/or windy conditions apply VC-5 shortly after loss (evaporation) of surface bleed water. SINAK recommends the use of SINAK Finishing Aid during concrete placement and finishing operations.

## COLD WEATHER INSTALLATION

Do not apply in temperatures below 32°F (0°C). Contact SINAK for additional information.

## STORAGE & HANDLING

VC-5 has an infinite shelf life when stored in a cool dry area out of direct sunlight. VC-5 MUST be protected from freezing. Product that has frozen will not function as intended, and should be discarded.

## AVAILABILITY

VC-5 is available in 5-gallon (18.9-liter) pails, 55-gallon (208.2-liter) drums and 275-gallon (1041-liter) totes.

## TECHNICAL ASSISTANCE

Technical assistance is available from the manufacturer (800) 523-3147 [www.SINAK.com](http://www.SINAK.com).

## WARRANTY

A 20-Year non-prorated labor and materials warranty is available. Concrete must be placed in accordance with ACI manual section 302.1R-15 with a water to cement ratio of less than 0.50. Contact SINAK for warranty requirements.

SINAK warrants its products to be free from manufacturing defects and to meet the technical properties on the current product information sheet. To the maximum extent permitted by law, this express warranty and the remedies specified below are exclusive and in lieu of all other warranties and remedies. Any implied warranties including without limitation implied warranties of merchantability and fitness for a particular purpose are excluded. SINAK's liability under this product warranty shall be limited to a refund of purchase price or replacement of the product. SINAK shall have no liability for any loss of use, interruption of business, lost profits or goodwill, or for any special, incidental or consequential damages of any kind arising from the purchase or use of the warranted product, even if SINAK has been advised of the possibility of such loss, interruption or damage. This limited warranty may not be modified by representatives of SINAK, its distributors or dealers. Any claim made under this warranty must be made within one (1) year of purchase and shall be accompanied by any reports or test results that form the basis of the warranty claim. Prior to settlement of a warranty claim, SINAK shall have the right, but not the obligation, to conduct site inspections and perform tests pertaining to the customer's warranted product and its manner of use.