

CrownCote Vapor Barrier

Product Description Sheet No. 303

A Pretreatment Penetrating Polymer Barrier to Control Vapor Transmission on Concrete Floors

Description

CrownCote Vapor Barrier, Product No. 303 is a 100% solid, 100% reactive, ultra low viscosity, moisture-insensitive, non-shrink, two-component, modified epoxy-penetrating sealer. It is formulated to penetrate the cement paste portion of the concrete and fill pores within the concrete structure. The polymer has excellent adhesion to the aggregate and cures under dry and damp conditions.

Recommended Use

Use on clean concrete surfaces that have vapor transmissions problems.

- Slabs-On-Grade Concrete Floors
- Interior or Exterior
- Heavy Traffic Areas
- Pretreatment before Overlaying Floors with Polymer Systems, Tile and Carpets

Advantages

- Excellent Working Time
- Cures and Adheres on Dry or Damp Concrete Surfaces
- Applicable and Curable Down to 33°F
- Applicable on concrete with readings up to 25 lb/1000 ft²/24 hrs
- Creates a Dense, Non-porous Barrier within the Concrete Mass Upper Surface
- 100% Solids, No VOC's
- Ultra Low Viscosity
- Very Safe to Use
- Low Odor During Application
- Cures Without Other Chemical Aid
- USDA and FDA Compliance
- Applied with Squeegee and Roller
- Improves Strength Properties of Concrete

Mix Ratio

70% A to 30% B by Weight

Typical Data for CrownCote Vapor Barrier

(Material and Curing Conditions 7 days at 23°C (73°F) unless noted, 50% R.H.)

COLOR	Light Amber	VISCOSITY	200 - 400 cps (MPa.s)
TENSILE STRENGTH	3,100 psi (21.4 MPa)		
TENSILE ELONGATION	>10%		
WATER ABSORPTION	0.01		
TACK-FREE	6 - 12 hrs	FULL CURE	7 days
POTLIFE	12 - 18 minutes	SHELF LIFE	1.5 years

Limitations

- **DO NOT APPLY ON WET OR WATER SATURATED CONCRETE SURFACES**
- Do Not Apply when Substrate Temperature is below 33°F (1°C).
- Do Not Thin with Solvents or Other Materials, They Will Prevent Proper Cure.
- Call Crown Polymers when readings exceed 15 lb/1000 ft²/24 hrs.
- Prod. No. 303 is a Pretreatment Material - It Must Be Covered with an Approved Wear Surface by Crown Polymers Corp.

Surface Preparation

1. Sound concrete for soft areas, and delaminations.
2. Locate all cracks, leaking expansion, isolation and control joints.
3. Follow Crown Polymers standard recommendations for patching, crack and delamination repairs and sealing all joints.
4. Remove all surface overlay materials.
5. Shot blasting of the concrete surface is required -grinding is not acceptable.
6. Use fans if necessary to move air over the cleaned surface to help dry the concrete.
7. The drier the concrete the deeper the penetration of the polymer.
8. All of the above work must be completed, if required, before product application.

Typical Coverage

It is difficult to determine exact coverage's of a penetrating product. The denser the concrete the less penetration and the higher the porosity of the cement paste the deeper the product will penetrate. Application rates vary from 35 to 70 ft² / gallon (0.58 to 1.16 L / m²).

How to Apply CrownCote Vapor Barrier

Test Substrate for Cleanliness and Adhesion

Before placement of the product test the cleaned concrete substrate for soundness and cleanliness with a Tensile Pull Test ACI 503 R (min.200 psi) or Crown Polymers Surface Shear Test. 100% concrete must fail to pass either test without bond line failure.

Preconditioning the Polymer

When temperatures drop, polymers typically thicken and it becomes harder to flow or to spread the product. When the temperatures are warmer, they typically become thinner. To improve the product flow-ability maintains temperature at about 20°C (73°F) before mixing. When the substrate temperature is 10°C (50°F) or lower, preheat each epoxy component to 90°F before mixing. **Caution the potlife will be reduced by about 50%.**

Mixing

Pre-mix Component "A", then pour Component "B" into "A" and mix for 60 seconds (until one even color develops) with a low speed paddle attached to a drill (400-600 rpm). The mixed product is ready for immediate placement.

Application Methods

1. Pour the mixed polymer onto the floor and spread evenly over the surface leaving a thick layer of epoxy with a squeegee.
2. Back roll the wet polymer into the surface of the concrete with a 3/8 in. nap roller. Help work the material into the concrete by pressing down onto the roller with extra pressure.
3. Leave a wet film of epoxy on the surface of the concrete after rolling.
4. Inspect all areas repeatedly to see if the concrete has absorbed the epoxy into the concrete mass. If it has immediately apply more material as explained above. Repeat as many times as necessary.
5. Do Not Broadcast With Aggregate or Any Other Material. This is a Neat Application.

Curing

1. Allow the epoxy to cure over night.
2. Carefully inspect the entire area to make sure that the vapor barrier film is solid without film break or concrete surface protrusions.
3. If protrusion(s) occur reapply the CrownCote Vapor Barrier to solve the problem(s).
4. Allow epoxy to become tack-free, and immediately apply the polymer overlay system selected to protect the floor.

KEEP OUT OF REACH OF CHILDREN

LIMITED WARRANTY - "Crown Polymers Corp. warrants its products to be free of manufacturing defects, to be of good quality, and that They will meet Crown Polymers current published physical properties when applied in accordance with Crown Polymers written directions and tested in accordance with ACI, ASTM and Crown Polymers Standards. Product proved to be defective will be replaced. **There are no other warranties by Crown Polymers Corp. of any nature whatsoever, expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product.** Crown Polymers Corp. shall not be liable for damages of any sort, including remote or consequential damages, resulting from any claimed breach of any warranty, whether expressed or implied, from any other cause whatsoever. Crown Polymers will not be responsible for use of this product in a manner to infringe on any p



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Customer Satisfaction

Apply to a test area(s) to ensure that the application meets Crown Polymers Standard for this project and the customer's expectations.

Clean-up

In case of spills wear suitable protective equipment, contain spill, and collect with absorbent material, place in suitable container. Ventilate area. Avoid contact. Dispose according to applicable local, state, and federal regulations.

Disposal

Dispose in accordance with current, applicable local, state, and federal regulations.

CAUTION

Before Using Read Safety Data Sheets.

Component "A"- Irritant

Contains epoxy resins. Prolonged contact with skin may cause irritation. Avoid contact with eyes.

Component "B" - Corrosive

Contains aliphatic/cycloaliphatic amines. Contact with skin may cause severe burns. Avoid eye contact. Product is a strong sensitizer

Important Information and First Aid

Use of safety goggles, chemical-resistant gloves, adequate ventilation and NIOSH/OSHA approved respirator is recommended. In case of skin contact, wash thoroughly with soap and water. For eye contact, flush immediately with plenty of water for at least 15 minutes. For respiratory problems, remove person to fresh air. Contact a physician immediately. Wash clothing before re-use.

Single Source Supplier

Expert technical advice combined with design and style

Crown Polymers delivers high performance polymer floor systems, coatings, precast coverings, and concrete repair products of quality, economy and durability.

Our knowledgeable technical sales staff combined with highly skilled factory trained applicators ensure the success of the markets we serve.

Crown Polymers works closely with the architect, engineer, owner and contractor with strong specifications and field support to obtain quality results.

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