



Protect flooring installations from the ground up.

7240 State Road, Philadelphia, PA 19135  
215-332-7709 or 888-839-2661  
Fax: 215-332-9997

vexcon.com

## MOISTUREBLOC® EMULSION VAPOR REDUCTION PRIMER STEP 1

MILDEW, ALGAE, BACTERIAL AND MOISTURE PROTECTION OF ADHESIVES  
MEETS TT-C-555B AND TT-P-1411

### DESCRIPTION

**MOISTUREBLOC® EMULSION VAPOR REDUCTION PRIMER STEP 1** is part of Vexcon's MoistureBloc Vapor Reduction System, which prevents carpet, tile and wood flooring adhesion loss due to moisture. This system is designed to reduce moisture vapor emissions by approximately 75%-85%, based on ASTM F1869, or more depending on temperature, humidity, ground water levels and rainfall amounts. A concrete slab that exhibits high moisture emission results per ASTM F1869 Calcium Chloride Test (greater than 3.0#/1000 sq.ft./ 24 hrs.) is coated with **MoistureBloc Emulsion Vapor Reduction Primer Step 1**. Step 1 is followed with **MoistureBloc Emulsion Vapor Reduction Topcoat Step 2**, which improves tile adhesion; see data sheet CP115B. Reactive adhesives use **MoistureBloc Emulsion Vapor Reduction Topcoat Step 3** in place of Step 2; see data sheet CP115C.

The system is based on unique technology of a breathable smooth coating with excellent adhesion to concrete. MoistureBloc Emulsion Vapor Reduction System will protect adhesives from moisture vapor and alkali degradation. For complete system analysis, see Technical Note TN115.

### BENEFITS

- Breathable 1.5 metric perms
- Withstands 576#/sq.ft. of Hydrostatic pressure
- Apply directly to fresh concrete (< 28 days old)
- Resistant to acids, alkalis, and reduces the moisture environment which allows mold and fungus to grow
- Moisture retentive (aids curing of new concrete)
- Cost effective protection
- Protects adhesive from moisture vapor degradation
- Alkali Blocker
- Low Odor

### SURFACE PREPARATION EXISTING CONCRETE

- The concrete shall be cleaned of all previously applied coatings.
- Use one of Vexcon's concrete cleaners and stain removal products to properly clean the surface prior to application.
- Use **MoistureBloc Adhesive Remover** to remove old adhesives and floor waxes prior to application of the vapor reduction system.
- To remove coatings such as epoxies, sealers, and curing compounds, use **MoistureBloc Stripper**.
- The floor shall be cleaned with **MoistureBloc Floor Cleaner** to remove any dust, dirt or debris and allowed to dry for a minimum of 24 hours after cleaning.
- To remove efflorescence or to etch the surface for improved material penetration, use **StarSeal® EF Safe Etch**, product data sheet OP100.
- There should be no freestanding water on the surface when the MoistureBloc vapor reduction system is applied.
- Hairline cracks should be repaired using **MoistureBloc Flexible Joint Sealant**.

### APPLICATION EXISTING CONCRETE

Vapor reduction system shall consist of the following products applied in accordance with the following procedures and methods.

- The concrete slab shall be coated with **MoistureBloc Emulsion Primer Step 1**, applied by sprayer or roller at a rate not to exceed 160-180 sq. ft. per gallon and allowed to dry for a minimum of 12 hours.
- Then apply a second coat of **MoistureBloc Emulsion Primer Step 1** at a rate of 160-180 sq. ft. per gallon at a 90 degree angle (crosshatch) to the first coat direction to ensure that all pinholes and voids are filled, and allowed to dry for a minimum of 12 hours.
- If rolling, for best results use Vexcon's **EvenFlow Applicator** or ¼ " nap roller.
- Use a roller pan to take off excess product. Do not dip and roll, or pour and spread.
- After 12 hours, the concrete shall be roller coated with **MoistureBloc Emulsion Topcoat Step 2** applied at a rate not to exceed 140-150 sq. ft. per gallon.
- The entire system shall be allowed to fully cure out and dry for a minimum of 24 hours prior to the application of floor tile, carpet, sheet goods or 72 hours prior to F1869 testing.
- It is required that ASTM F1869 test be run on the MoistureBloc Emulsion coated concrete prior to applying floor covering to determine that the water vapor levels have been reduced to an acceptable level. Vexcon will provide additional material if required free of charge if the initial application does not reduce the vapor to less than 3#/1000sq.ft./24hrs.
- **Many water based adhesives require a portion of the water to go into the concrete to help achieve quick tack time; this water will not go through the MoistureBloc System. The tack time of each adhesive should be determined prior to applying the tile; this can vary as much as 100% vs application of the adhesive on concrete. \*Consult with Vexcon for compatibility of reactive adhesives for flooring. If adhesive tack time may not be extended, refer to the section "Application as Base for Cementitious Overlayments or Patching Products" on this data sheet.**
- Proper application of Vexcon material is the responsibility of the installer or user. Telephone consultation and/or field visits by Vexcon personnel are for the sole purpose of making technical recommendations only, and not for providing quality control or supervision on location.

### APPLICATION NEW CONCRETE

- Apply as soon as possible after the concrete has received final finishing, just as the water sheen disappears. If application is delayed, concrete must be kept wet (preferably by water spray-mist) until **MoistureBloc Emulsion Step 2** can be applied. If concrete is allowed to dry, use **StarSeal EF Safe Etch**, product data sheet OP100, to clean and prepare the surface.
- Apply one coat of MoistureBloc Emulsion Step 2 at 300 sq.ft./gal. Allow to dry. After 72 hours drying and curing time, if the MoistureBloc Emulsion Step 2 film is undamaged, the application of MoistureBloc Emulsion Step 1 can continue as directed above for Existing Concrete.

## **APPLICATION AS BASE FOR CEMENTITIOUS OVERLAYMENTS OR PATCHING PRODUCTS**

The use of MoistureBloc System as a vapor reduction system under cementitious flooring systems must follow the directions below:

1. **MoistureBloc Surface Bond**, data sheet CP154, must be applied over MoistureBloc Step 2 or Step 3 in accordance with manufacturer's directions as a primer bonding agent for the cementitious product.
2. The latex primer system for the cementitious manufacturer can be used if designed as a bonding agent to concrete.

## **FLOOR REPAIR AND RESTORATION**

- **MoistureBloc SLU**- High strength and fast setting self leveling underlayment designed to level and smooth interior substrates prior to installation of finished flooring
- **MoistureBloc FP** - Self curing advanced polymer modified skimcoat leveling compound for patching and restoration of interior concrete floor surface defects

## **NOTE: JOINTS**

MoistureBloc and bonding agent/primer must be applied to joints prior to using cementitious patch or floor levelers to fill joints as a protection for compounds.

## **ANALYSIS**

The above recommendation is made based on the following calculations, independent laboratory results, and data. MoistureBloc, when tested in accordance with Fed. Spec. TT-P-1411, will withstand greater than 576#/sq.ft. of Hydrostatic pressure without allowing water to come through the film, and will breathe through 1.5 metric perms of water vapor or 1.4#/1000 sq.ft./24 hrs. An ASTM C1315 Type 1 sealer applied at 150 sq.ft./gal. will breathe through less than 1.77# water vapor per 1000 sq.ft./24 hrs.

## **SPECIFICATIONS**

VOC: 180 grams/liter or 1.50#/gal

- Meets:
  - USEPA AIM-Waterproofing Sealers and Treatments
  - OTC-Waterproofing Concrete/Masonry Sealers
  - CARB-Waterproofing Sealers, Concrete/Masonry
- LEED NC category/points: For detailed information visit [vexcon.com/green](http://vexcon.com/green).
  - EQ 4.1 – 1 point
  - EQ 7.1 – 1 point
  - EQ 7.2 – 1 point
  - MR 2.1/2.2 – 1 point
  - MR 5.1/5.2 – 1 point
  - ID 1 – 1 point
- ASTM C 309, Type 1 Class A&B
- CSI reference: 07 26 13, 09 61 50

## **LABORATORY TESTS**

Independent Laboratory test results by Bee Laboratories on mortar and cured concrete samples, applied with the MoistureBloc Emulsion Vapor Reduction System and tested by ASTM F1869, while the bottom of the block is immersed in water, show a reduction on average of 75% in the water vapor. See test report TN124. This system functions to bring down F1869 test results of 12#/1000sq.ft./24 hours to the limit of 3#/1000 sq.ft./24 hrs.

## **SAMPLE ARCHITECTURAL SPECIFICATION**

Basis of design: Concrete will be coated with MoistureBloc Emulsion Vapor Reduction System as manufactured by Vexcon Chemicals, Inc., a modified acrylic texture paint that meets the requirements of Federal Spec. TTC-555B, TT-P-1411, and VOC requirements. Surface will be coated with MoistureBloc Emulsion Primer (Step 1) at 90 sq.ft./gallon and MoistureBloc Emulsion Topcoat (Step 2 or 3) at 150 sq.ft./gal in accordance with manufacturer's recommendation in product data sheet CP115 to provide reduction of moisture vapor from concrete of approximately 75-85%.

## **WARRANTY**

MoistureBloc Emulsion Vapor Reduction Primer System is covered by a five-year material replacement warranty. Contact Vexcon for complete warranty information.

## **SHELF LIFE**

If properly stored in its original sealed container, two years from date of manufacture. Rotate your stock.

## **SPRAYING EQUIPMENT INFORMATION**

Electric	Graco Ultra 1000
Air	Graco Bulldog 30:1
Gas	Graco 5000

Spray equipment must be cleaned and maintained in accordance with manufacturer's directions.

## **PACKAGING**

MoistureBloc Emulsion Primer Step 1 is available in 50-gallon drums and 5-gallon pails.

## **VITAL STATISTICS**

Flash Point	200°F (41°C) TCC
Boiling Point	310-495°F (154-257°C)
Autoignition Temp	473°F (245°C)

Use foam, carbon dioxide and dry chemicals as extinguishing media for fires. Water may be used to reduce the rate of burning and to cool containers.

## **PHYSICAL PROPERTIES**

Weight Solids	67%
Dry Time to touch	4 hr.
Wt/gal	11.7#/gal.

## **HEALTH AND SAFETY**

- Use of respirators is mandatory when using this product in confined areas.
- Use only with adequate ventilation.
- If swallowed, do not induce vomiting.
- Use of gloves, goggles and other protective clothing is advised when using this product.

Vexcon MSDS CP115A is an integral part of the safety and application of this product. Before using product, obtain a copy from your distributor or by contacting Vexcon Chemicals.

## **CONTACT US @**

Additional product information, technical assistance and customer service is available by contacting Vexcon Chemicals directly or our distributors.

- [vexcon.com](http://vexcon.com)
- [sales@vexcon.com](mailto:sales@vexcon.com)
- [techservice@vexcon.com](mailto:techservice@vexcon.com)
- Voice: 888.839.2661
- [customerservice@vexcon.com](mailto:customerservice@vexcon.com)
- Fax: 215.332.9997

## **WARRANTY**

Vexcon warrants that the goods supplied hereunder shall be of its standard quality and shall conform in all material respects to the sample which has been made available for testing by buyer prior to sale. As the EXCLUSIVE REMEDY for any breach of this Limited Warranty, Vexcon shall replace nonconforming goods or refund the purchase price. Since methods of use and application are beyond Vexcon's control, this Limited Warranty IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THOSE CONCERNING MERCHANT ABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS LIMITED WARRANTY IS ALSO IN LIEU OF ANY OTHER POSSIBLE LIABILITIES OF VEXCON, WHETHER ALLEGED TO ARISE BY AGREEMENT OR BY OPERATION OF LAW, RESPECTING THE SALE, APPLICATION, USE OR FUNCTION OF VEXCON'S PRODUCTS, INCLUDING BUT NOT LIMITED TO CLAIMS OR NEGLIGENCE, GROSS NEGLIGENCE, STRICT LIABILITY OR ANY OTHER TORT. IN NO EVENT SHALL VEXCON BE LIABLE FOR PERSONAL INJURY OR PROPERTY DAMAGE, REAL OR PERSONAL, ATTRIBUTED TO ITS PRODUCTS, NOR FOR ANY EXCAVATION, REMOVAL, REAPPLICATION, DOWN TIMES, CLEANUP, LOSS OF USE, LOSS OF OPPORTUNITY, LOSS OF MARKET VALUE, LOSS OF RENTAL VALUE OR FOR ANY LOSS OF PROFITS OR OTHER SPECIAL, INCIDENTAL, RESULTING, CONSEQUENTIAL OR EXEMPLARY DAMAGES. No person is authorized by Vexcon to assume for it any other liability of any kind in connection with the sale or use of products manufactured and sold by it, and there are no oral agreements or warranties collateral to or affecting any sale or use. All of the foregoing arises under the substantive law of Pennsylvania without regard to principles of conflicts of laws.