



# MVB 100

## High Solids Moisture Vapor Barrier Epoxy Primer



MVB 100 is a high performance epoxy primer system designed to reduce water vapor transmission. When applied to properly prepared concrete, MVB 100 has shown to have improved adhesion to concrete surfaces where moisture is an issue and other high performance coatings have failed.

### Key Features & Typical Benefits

- Superior adhesion for concrete affected by moisture vapor transmission.
- Excellent base coat for many urethanes and epoxies.
- Performs well where many other coatings fail.
- VOC compliant for all areas in the United States and Canada.

### Recommended Applications

- Auto Service Centers
- Warehouses
- Laboratories
- Aircraft Hangars
- Garages
- Basements
- Many other concrete surfaces where moisture vapor transmission is an issue.



### Specifications / Compliances

- Meets OTC, CARB & LADCO VOC restrictions.
- Perm rating < 0.2 perms @ 16 mils
- ASTM E 96-10 (Standard test method for water vapor transmission of materials)
- ASTM D 7234-05 (Standard test method for pull-off adhesion strength of coatings on concrete)

### Typical Properties & Technical Information

PROPERTY	VALUE
Solids/Active Content, Percentage by weight	100%
Pot Life	N/A
Dry Time - Tack Free	10 - 14 hours
Dry Time - Foot Traffic	20 - 24 hours
Dry Time - Heavy Traffic	4 - 7 days
Re-Coat Time Window	12 - 24 hours
Application Temperature	50° F - 80° F
VOC (Volatile Organic Compound) Content	0 grams/Liter
Appearance - Dry	Clear

Information above is based on lab temperatures of 70° - 72°F at 50% RH. Using this product outside these conditions may affect the accuracy of the information above. Always test prior to use!

ALWAYS REFER TO SDS & READ FULL TECH DATA SHEET AND WARRANTY INFORMATION PRIOR TO USE.

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## Application Instructions

**MOISTURE TESTING:** Concrete floors, especially those not poured over a proper vapor barrier (plastic), are subject to possible moisture vapor transmission which may result in bubbling and/or failure of high performance coatings. Basic moisture testing can be performed by placing a 4' x 4' sheet of plastic on the concrete surface and securely taping it down on all edges. If after 24 hours the concrete is still dry below the plastic, the surface should be ready to coat. If moisture is present, the coating applicator should perform calcium chloride and relative humidity probe testing to determine if excessive levels of vapor emissions are present before applying any coatings.

**SURFACE PREPARATION:** The concrete surface must be deemed mechanically and structurally sound, thoroughly clean of debris and completely dry. Concrete must be fully cured a minimum of 28 days. It is recommended to prepare the concrete surface by mechanical means such as shot blasting or diamond grinding with 30 grit or coarser diamonds to achieve a CSP-2 to CSP-3 profile. Vacuum concrete surface several times until dust thoroughly removed. If applying over an existing, fully bonded coating that is outside its recommended recoat window, the surface should be sanded thoroughly with a 60-120 grit sanding screen until the surface is completely dulled with scratches. Vacuum dust thoroughly, rinse with clean water and remove excess water with a wet/dry vacuum or floor scrubber. Allow surface to dry completely prior to application of coating. Where applicable and with adequate ventilation, wipe the surface with acetone and a microfiber dust mop. **CAUTION:** Acetone is extremely flammable! If using acetone follow all safety precautions, make sure no pilot lights, open flames, sources of static electricity, sparks or extreme heat sources are present. Use recommended personal protection for acetone.

Substrate, air and material temperatures must be no less than 50°F and not exceed 80°F. If applied outside these limits the coating may not achieve adequate film formation and may have excessive air entrapment, bubbles, blushing or hazing. Please note that higher substrate, air and material temperatures as well as excessive humidity may speed the cure rate of this product. Cooler temperatures and lower humidity may slow the cure rate of this product.

**FOR PERSONAL PROTECTION USE GLOVES, GOGGLES, RESPIRATOR AND OTHER NECESSARY PPE. REFER TO SDS PRIOR TO USE!**

**TINTING:** Tinting this material is not recommended as it may hinder it's ability to fully penetrate and achieve maximum bond.

**MIXING:** If mixing less than a full kit, mix Part A and Part B separately with a stir stick, low speed mixer or vigorously shake containers prior to measuring out the smaller kit to ensure uniform distribution of all ingredients. In a clean mixing container, blend 2 Parts A and 1 Part B using a drill mixer for 2-3 minutes. Avoid creating a vortex in the material which could introduce air and/or moisture content to the mixture. Do not mix more than can be applied within the usable pot life time frame. **DO NOT THIN!**

#### **COVERAGE RATE:**

First Coat - Direct to Concrete : 50 - 100 ft<sup>2</sup> per gallon\*

\*Coverage rates may vary depending upon surface porosity, texture, application method and prior coating application. Excessive build up should be avoided.

**APPLICATION:** It is suggested to apply the mixed material by pouring it out onto the surface and spread with a flat flexible squeegee or a 3/16" (15 - 20 mil) notched squeegee. Back roll clear and solid color epoxy using 3/8" nap shedless roller. 18" rollers are recommended for any surface to speed up application time and reduce roller marks. Use a brush or small roller for corners and areas hard to maneuver longer squeegees/rollers. While applying keep a wet edge to prevent roller marks. It is recommended to work in sections usually using control joints as dividers to ensure proper application results. It is always suggested to minimize the amount of time mixed material is held in a larger volume, especially in higher temperatures. If the material becomes thick while applying and sticking to the application tools, stop applying and discard the mixed material. At this point it has reached the end of the usable pot life. While applying keep a wet edge to prevent streaking. Do not allow to puddle! Use a brush to remove excess coating in joints.

**RECOATING:** If possible, recoat within the suggested recoat window located on page 1. Apply additional coats in the same manner as the first coat. Note that higher substrate, air and material temperatures as well as excessive humidity may greatly reduce the acceptable recoat window of this product. When working in higher temperatures, always recoat as early in the recoat window as possible to avoid failure between coats. If recoating outside the suggested recoat window (see page 1) or beyond 24 hours, sand using a 60-120 grit sanding screen to ensure adequate adhesion between coats. Vacuum dust thoroughly, rinse with clean water and remove excess water with a wet/dry vacuum or floor scrubber. Allow surface to dry completely prior to application of coating. Where applicable and with adequate ventilation, wipe the surface with acetone and a microfiber dust mop. **CAUTION:** Acetone is extremely flammable! If using acetone follow all safety precautions, make sure no pilot lights, open flames, sources of static electricity, sparks or extreme heat sources are present. Use recommended personal protection for acetone.

**PLEASE NOTE:** Applying material outside the suggested parameters may result in product failure. It is always recommended to test the product in a small, inconspicuous area (on the same concrete substrate) for desired results prior to application. Coverage rates may vary for all coatings and substrates depending on porosity, density, texture etc. When applying, adhere to suggested coverage rates. Applying too thin of a coating may cause inadequate

**COD WARNING:** OSHA and the American Disabilities Act (ADA) have now set enforceable standards for slip-resistance on pedestrian surfaces. The current coefficient of friction required by ADA is .6 on level surfaces and .8 on ramps. The manufacturer recommends the use of slip-resistant aggregate in all coatings or flooring systems that may be exposed to wet, oily or greasy conditions. It is the contractor and end users' responsibility to provide a flooring system that meets current safety standards. The manufacturer nor its sales agents will be responsible for injury incurred in a slip and fall accident.

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## Precautions and Limitations

- This product will freeze during storage. Store at temperatures above 40°F.
- All HVAC ventilation ducts should be somehow blocked prior to application so solvent fumes are not distributed.
- If using indoor, use proper ventilation while applying and for hours after application to ensure fumes are removed.
- It is not recommended to apply product over carpet, tile, or other types of floor adhesives.
- This product performs best when applied as one or two medium-light coats, not one heavy coat.
- Please be aware that this product when cured may be slippery when wet. An anti-slip additive can be added to reduce slip hazards.
- All new concrete must be cured for at least 28 days prior to application.
- It is not recommended to thin product. Improper thinning may cause coating to delaminate in a short time frame and other performance issues.
- This product may darken the surface of many new and existing concrete slabs. Test prior to use.
- Physical properties listed on this technical data sheet are typical values not specifications.
- This product is intended as a primer/base coat only.
- This product is NOT intended for use over vegetable oil, animal fat or synthetic oil contaminated concrete.
- This product is NOT intended for use over concrete contaminated with motor oil or other automotive fluids.

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**CLEAN-UP:** Use xylene. Dispose of containers in accordance with local, state and federal regulations.

**PRODUCT REMOVAL:** Dried, cured coating may be removed with a commercial epoxy stripper or by using a diamond grinding method, sandblasting method or similar mechanical action.

**SHELF LIFE:** Up to one year from manufacture date in its original, unopened container stored at room temperature.

**PACKAGING:** Available in 3 gallon kits.

Always read all technical information, label and SDS prior to use. This information can be found online or by calling customer service at the number below.

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The manufacturer warrants our products to be of good quality, free of defects and will conform with our published specifications in force on the date of acceptance of the order. As the exclusive remedy for breach of this warranty, we will replace defective materials. Ninety days after The manufacturer has shipped the products, all our warranty and other duties with respect to the quality of the materials delivered shall conclusively be presumed to have been satisfied, all liability therefore terminates, and no action for breach of any said duties may thereafter be commenced. No warranty is expressed or implied as to the length of life of this product, or merchantability or fitness. Liability, if any, is limited to the purchase price of the material. Under no circumstances will The manufacturer be liable for a consequential damage to anyone in excess of the purchase price of the products.