



## IMPERIAL MVB

### 100% SOLIDS MOISTURE VAPOR BARRIER EPOXY PRIMER TECHNICAL DATA & APPLICATION INSTRUCTION

#### PRODUCT DESCRIPTION

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

#### BENEFITS/FEATURES

- Superior adhesion to concrete
- Performs well where many other coatings fail
- VOC Compliant
- Resists Hydrostatic pressure up to 10 psi
- Excellent base for epoxies & urethanes

#### RECOMMENDED APPLICATIONS

Kingdom Products' **Imperial MVB** is designed for a variety of concrete flooring applications. It is an excellent primer for auto service centers, warehouses, laboratories, aircraft hangars, cafeterias, garages, basements and other areas affected by high moisture vapor transmission.

#### TECHNICAL INFORMATION

Pot Life.....	10 - 15 min	Wet Appearance.....	Clear
Drying Time - Tack Free.....	4-10 hours	Dry Appearance.....	Clear
Drying Time - Foot Traffic.....	12 - 24 hours	VOC Content.....	0 g/l
Drying Time - Heavy Traffic.....	24 - 48 hours	Application Temp.....	50°F - 80°F
Re-Coat Window.....	8-24 hours		

*\*\*Please note that low air and/or concrete temperatures and/or relative humidity will affect all drying times. Information above is based on lab temperatures of 70°F - 72°F @ 50% RH.*

#### COVERAGE RATES

**First Coat - direct to concrete**      50 - 100 ft<sup>2</sup> per gallon\*

*\*Coverage rates will vary depending upon surface porosity, texture, application method and prior coating application. Excessive build-up should be avoided. Follow recommended coverage rates for best results.*

#### SPECIFICATIONS/COMPLIANCES

Kingdom Products' **Imperial MVB** meets OTC, CARB & LADCO VOC restrictions - Perm rating < 0.1 perms @ 16 mils - ASTM E 96-10 - ASTM D 7234-05 - Resists hydrostatic pressure up to 10 psi.

#### PACKAGING, STORAGE & SHELF LIFE

Kingdom Products' **Imperial MVB** is packaged in 3 gallon kits. Store product in the application area to bring the material to room temperature before applying. Long term storage should be at room temperature. **Imperial MVB** has a shelf life up to one year (12 months) in it's original, sealed, unopened container.

#### MOISTURE TESTING

Concrete floors, especially those not poured over a proper vapor barrier, are subject to possible (MVP) moisture vapor transmissions which may result in bubbling and/or failure of high performance coatings. Basic moisture testing can be performed by securing a 4' x 4' sheet of plastic to the concrete surface by 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 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 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 is thoroughly removed. 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 pure Acetone and a microfiber dust mop. **CAUTION:** Acetone is extremely flammable! 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 between 50°F and 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. 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.

**PRODUCT MIXING:** Prior to blending, first mix each Part A & Part B separately with a stir stick, low speed mixer or vigorously shake container, to ensure uniform distribution of all ingredients. Then 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 useable pot life. **DO NOT THIN!**

**PRODUCT APPLICATION:** It is suggested to apply the mixed material by pouring it out onto the surface and spread with a flat flexible squeegee. Back roll clear and solid color epoxy using 3/8" nap lint free 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 any unused material. At this point it has reached the end of the useable 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.

If recoating 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 before recoating. Where applicable and with proper ventilation, wipe the surface with pure Acetone and a clean microfiber dust mop.

## CLEAN-UP & PRODUCT REMOVAL

Use Xylene to clean. Dispose of containers in accordance with local, state and federal regulations. Dried, cured product may be removed with a commercial epoxy stripper or by using a diamond grinding method, sand blasting method or similar mechanical action.

## PRECAUTIONS AND LIMITATIONS

- Tinting this material is not recommended as it may hinder its ability to fully penetrate and achieve maximum bond.
- 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.
- This product is intended to be used as a primer/base coat only. Be aware that when cured, this product may be slippery when wet. An anti-slip additive, such as *Kingdom Products' Sure Grip - Coarse*, can be added to reduce slip hazards.
- All new concrete must be cured for at least 28 days prior to application. **DO NOT USE ON BRICK.**
- It is not recommended to thin product. Improper thinning may cause sealer to delaminate in a short time frame.
- This product may darken the surface of many new and existing concrete slabs. Test prior to use.
- This product is **NOT** intended for use over concrete contaminated with vegetable oil, animal fat, synthetic oil, motor oil, or other automotive fluids.

## SPECIAL NOTES

**FOR PROFESSIONAL USE ONLY!** Please consult Safety Data Sheet (SDS), Technical Data Sheet (TDS) and Warranty Information prior to use. Applying **Imperial MVB** outside of the suggested parameters may result in job 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.