

# PPC Moisture Vapor Barrier TDS

## PRODUCT TECHNICAL DATA SHEET

**PPC MVB** is a transparent two-component epoxy, comprising 100% solids with a mild scent and low viscosity. It is specially designed as a moisture barrier coating for treating both new and existing concrete floors exhibiting elevated moisture levels and high pH. Serving as a one-coat moisture vapor barrier coating, PPC MVB proves versatile for different concrete applications. Its low viscosity formulation not only facilitates enhanced penetration into the concrete for superior substrate adhesion but also ensures a greater ability to seal and block moisture compared to conventional epoxy flooring products. When **Premera FPI Fusion Primer** is included, minimal surface preparation is required on sound and stable surfaces, no shotblasting, no grinding or scarifying is required.

### WHERE TO USE

- Pharmaceutical
- Manufacturing & Warehouse Floors
- Laboratories
- Mechanical Rooms
- Animal Care Areas
- Shop Floors
- Loading Docks
- Pharmaceutical Plants
- Retail Stores
- Multiple-Unit Housing
- Institution Facilities
- Excellent Moisture Blocker
- Underneath any Coatings Showing Concrete Contamination
- Underneath Various Floorings Such as Carpet, Wood, Rubber, Vinyl, Tile, & Linoleum/PVT

### ADVANTAGES

- Essentially odorless and self-priming.
- 100% Solids, Low VOC, Low Odor
- Vapor Control for High Moisture and High pH Slabs.
- One-Coating Moisture Vapor Barrier
- Excellent Concrete Adhesion
- Standard and Fast Drying Times
- Low Viscosity for Deeper Concrete Slab Penetration
- Controlled Vapor Pressure up to 25lbs

### THEORETICAL COVERAGE RATES

100 sq.ft per gallon at 16 WTF

### PACKAGING & COLORS

Packaging: 3 Gallon and 15 Gallon Kits (on special order)  
Colors: Clear

### MIX RATIO

PPC Moisture Vapor Barrier mix ratio is 2A:1B, meaning two parts A (resin) to one part B (hardener) by volume.

### SHELF LIFE AND STORAGE

(at 40°F to 100°F)

Parts A and B: 12 months in original unopened factory sealed containers. Protect from freezing. Part C: 6 months in original unopened packaging. Store dry between 50-110°F (10-44°C).

### PHYSICAL/CHEMICAL CHARACTERISTICS

|                                           |                                                                |
|-------------------------------------------|----------------------------------------------------------------|
| Volatile Organic Compounds (VOC).....     | <5 g/l                                                         |
| Density .....                             | 9.0 lb/ga                                                      |
| Pot Life .....                            | 35-40 minutes                                                  |
| Mix Ratio .....                           | Mix full units only                                            |
| Application .....                         | 45°F (7°C) min. / 86°F (30°C) max Temperature                  |
| Service .....                             | -40°F (-40°C) min. / 248°F (120°C) max Temperature             |
| Visual Appearance .....                   | High Gloss                                                     |
| Recoat Window.....                        | 8-24 hours                                                     |
| Curing Details                            |                                                                |
| TACK FREE.....                            | 6-8 hours                                                      |
| FOOT TRAFFIC .....                        | 8-12 hours                                                     |
| LIGHT TRAFFIC: .....                      | 48 hours                                                       |
| FULL CURE .....                           | 7-8 days / 1/4 in (6 mm)                                       |
| Thinner Recommended .....                 | Xylene                                                         |
| Softening Point .....                     | 266°F (130°C)                                                  |
| Abrasion Resistance .....                 | 30 mg loss                                                     |
| ASTM D4060 Taber Abraser Cs-17            |                                                                |
| Wheel / 1000g (2.2 Lbs) /1000 Cycles      |                                                                |
| Bond Strength .....                       | > 1.9 MPA (275 psi) (substrate failure)                        |
| ASTM D4541                                |                                                                |
| Coefficient Of Thermal Expansion          |                                                                |
| ASTM D696.....                            | 0.89x10 <sup>-5</sup> in/in/°F (1.6x10 <sup>-5</sup> mm/mm/°C) |
| Tensile Strength D2370 .....              | 7500 psi                                                       |
| Water Absorption ASTM C413 .....          | <0.1%                                                          |
| Impact Resistance .....                   | 160 in/lb                                                      |
| Resistance To Mold .....                  | Rated 10 (highest resistance)                                  |
| Growth, ASTM D3273                        |                                                                |
| Resistance To Fungi .....                 | Rated 0 (no growth)                                            |
| Growth, ASTM G21                          |                                                                |
| Hardness, Shore D .....                   | 70-80                                                          |
| Flow .....                                | 325 mm (12.80 in)                                              |
| Coefficient Of Friction, ASTM D2047 ..... | 0.7 smooth                                                     |
| Indentation Mil-PRF-24613 .....           | 0%                                                             |
| Thermal Compatibility, ASTM C884 .....    | Pass                                                           |
| Compression ASTM S695 .....               | 10000 psi                                                      |

*\* Times are approximate and will be affected by changing ambient conditions, especially changes in temperature and relative humidity.*

*\* The indicated mileage is calculated for flat surfaces. A porous or imperfect surface will require more material in order to cover the same mileage.*

## OVERVIEW OF INSTALLATION STEPS

**Mandatory Mockup:** A 100-200 sq/ft mockup should be installed as a guide for installation and quality control panel days or weeks before the actual installation of the coating system. The mockup should be approved by an authorized representative of the Property Management for Slip Resistance, aesthetics, and functionality.

**Surface Preparation:** No grinding or surface profile is needed when **Premera FPI Fusion Primer** is used. Otherwise ICRI CSP 3 is necessary. To achieve optimal performance, the product mandates a suitable surface profile. The substrate must undergo mechanical profiling (ASTM 4259-83) and should be clean, sound, and dry.

Cavities, cracks, and imperfections will be visible in the coating if the concrete is not properly repaired. Use **PPC Crack Repair Fast** to smooth out and fill any concrete voids, pinholes, or other imperfections on the surface. Once the material has hardened, correct any imperfections through diamond grinding.

Another option will be to use **PPC Polyurea Decking 95** as a grout coat to fill scratches, pinholes, or cracks over the concrete. Once the material is dry you can apply your next coating right on top of it (24 Hr recoat window)

**Mixing:** Maintain the temperature of both (A) and (B) components between 70°F and 80°F (20°C-25°C). Mix them separately to achieve a consistent texture. For a 3-gallon kit, pour (Side-B) into (Side-A) in a 3.5-gallon bucket. Thoroughly mix the contents until all components are fully integrated, and no streaking is evident. Avoid thinning the mixture. Precise measurement of each component is crucial for optimal product performance. Consider the beneficial technique of pouring from one container to the other (boxing) during mixing to ensure thorough blending. Mix for a duration of 2 minutes.

**Application Equipment:** The equipment required may vary depending on the system used. It typically includes a low-speed drill (operating at 450 rpm) with a Jiffy® type impeller mixing paddle, a disposable 3-inch brush for precise application, a 3/8-inch nap non-shedding roller with a phenolic core, and a rubber squeegee. Pouring, squeegeeing, and back-rolling are recommended techniques because Dip-n-Roll can be challenging for less experienced installers, potentially resulting in unsightly lap lines.

**Application:** Once you have thoroughly mixed all the components according to the instructions, promptly pour the mixture onto the surface in a ribbon. Evenly spread the material using a squeegee and assess the film thickness with a wet-film thickness gauge. It is crucial to perform back-rolling and then cross-rolling. Allow a minimum of 12 hours for drying before applying a recoat. (but not later than 24 hours). Light foot traffic may be permitted in 8-12 hours, light vehicle traffic in V, heavy traffic in 3 days.

## FOR BEST RESULTS

- Always protect materials from excessive heat and cold, and pre-condition to room temperature, as necessary.
- Always apply at decreasing temperatures. Concrete is porous and traps air. During rising temperatures (typically in the morning), air expands and can cause gas release in the coating. It is safer to apply coatings in the late afternoon, especially for outdoor applications.
- Measure surface and ambient temperatures to ensure the material is only applied when temperatures are between 45°F and 86°F during placement and cure time.
- Regularly check wet film thickness with mil gauge and monitor consumption to ensure correct application rates are obtained.
- The proper application of this product is the sole responsibility of the end user. Job site visits by PPC representatives are only for the purpose

of making recommendations, and do not assume any liability for supervision or quality control.

- Spray down **Premera T2 MCM** topcoat to provide superior resistance to harsh chemicals, abrasion, mold, mildew, moss, chlorides & salt spray, acid rain, UV damage, oxidation, animal & bird waste damage, gum, and graffiti.

## LIMITATIONS:

Avoid contact with Part A and B as they may cause skin and/or eye irritation. In case of contact, immediately flush area with copious amounts of clean water for at least 15 minutes. Seek medical attention. Applicators should cover hands with impervious gloves. Wash hands thoroughly with soap and water after use, and before eating, smoking, etc.

## LIMITED WARRANTY:

PPC warrants its products to be free of manufacturing defects and that they will meet PPC current published physical properties. PPC warrants that its products, when properly installed by a state licensed contractor according to PPC guide specifications and product data sheets over a sound, properly prepared substrate, will not fail for a period of 12 months. Seller's sole responsibility shall be to replace that portion of the product which proves to be defective. There are no other warranties by PPC of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. PPC 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. PPC shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. PPC reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

## DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the users responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and PPC makes no claim that these tests or any other tests, accurately represent all environments. For further information please contact us at the following email address: [orders@premierprotectivecoatings.com](mailto:orders@premierprotectivecoatings.com) or visiting [www.premierprotectivecoatings.com](http://www.premierprotectivecoatings.com)

### DISPOSAL

Any surplus material, including both Part A and Part B components, should be combined and allowed to cure. Upon curing, the product can be disposed of without any restrictive conditions.

Uncured materials should be securely stored in an appropriate sealed container and disposed of in strict adherence to the applicable provincial, state, municipal, and federal regulations.

### CAUTION

ALWAYS KEEP OUT OF THE REACH OF CHILDREN

KEEP FROM FREEZING CONDITIONS

INTENDED FOR INDUSTRIAL USE ONLY