PREMIER PROTECTIVE COATINGS

Revision 02-06-24

Moisture Vapor Barrier Epoxy - Membrane System

MOISTURE VAPOR BARRIER

PRODUCT DESCRIPTION

PPC MVB i s 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 v iscosity formulation not only facilitates enhanced penetration into t he concrete for superior substrate adhesion but also ensures a g reater ability to seal and block moisture compared to conventional e poxy flooring products.

SAFETY MEASURES

Prioritizing safety during the handling of our product is paramount. To prevent skin contact, as some individuals may exhibit allergic reactions to the materials used, we strongly advocate the use of protective gloves, eyewear, appropriate attire, and ensuring proper ventilation. For comprehensive insights and guidance on the safe handling, storage, and disposal of chemical products, we urge you to consult the latest Safety Data Sheet (SDS) for **PPC MVB**. This resource contains essential physical, ecological, toxicological, and other safety-related data.

— KEEP OUT OF REACH OF CHILDREN
— KEEP FROM FREEZING CONDITIONS
— INTENDED FOR INDUSTRIAL USE ONLY

Disclaimer : Our recommendations and information pertaining to the application and utilization of our products are based on our extensive knowledge and experience, provided in utmost good faith. Nevertheless, the actual variances in materials, differences in substrates, and on-site conditions may have implications on the product's performance. Consequently, no warranty or liability can be inferred from this information or any recommendations. Users bear the responsibility of conducting their product testing tailored to their specific application and purpose. We strongly emphasize respecting the proprietary rights of third parties. All orders are subject to our prevailing terms of sale and delivery. For the most recent local product Technical Data Sheet related to the specific product, please don't hesitate to request it.

ADVANTAGES

- 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

APPLICATIONS

- 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

PACKAGING

3 Gallon and 15 Gallon Kits (on special order)

COLORS

Clear

RECOMMENDED THICKNESS

16 mils 100 ft2/gal

MOISTURE VAPOR BARRIER

MECHANICAL PROPERTIES

@ 73°F (23°C) AND 50% R.H.

Properties	Data
Thinner Recommended	Xylene
Softening Point	266°F (130°C)
Abrasion Resistance, ASTM D4060 Taber Abraser Cs-17 Wheel / 1000g (2.2 Lbs.) / 1000 Cycles	30 mg loss
Bond Strength, ASTM D4541	> 1.9 MPA (275 psi) (substrate failure)
Coefficient Of Thermal Expansion ASTM D696	0.89x10-5 in/in/°F (1.6x10-5 mm/mm/°C)
Tensile Strenght D2370	7500 psi
Water Absorption ASTM C413	<0.1%
Impact Resistance	160 in/lb
Resistance To Mold Growth, ASTM D3273	Rated 10 (highest resistance)
Resistance To Fungi Growth, ASTM G21	Rated 0 (no growth)
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
Chemical Resistance	Please contact SPDG
Flexural Strength ASTM C580	16.2 MPa (2350 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.

PHYSICAL PROPERTIES

@ 73°F (23°C) AND 50% R.H.

Properties	Data
Volatile Organic Compounds (VOC)	<5 g/l
Density	9.0 lb/ga
Pot Life	35-40 minutes
Mix Ratio	Mix full units only
Application Temperature	45°F (7°C) min. / 86°F (30°C) max.
Service Temperature	-40°F (-40°C) min. / 248°F (120°C) max.
Visual Appearance	High Gloss
Curing Details	FOOT TRAFFIC: N/A LIGHT TRAFFIC: N/A FULL CURE: 7-8 days / 1/4 in (6 mm)
Shelf life (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).

CHECK CONCRETE MOISTURE

The concrete surface needs to be completely dry prior to applying this floor coating. It is essential to conduct concrete moisture testing, with a preference for calcium chloride testing or "In-situ" relative humidity testing. The readings obtained must fall below the specified threshold outlined for each Purepoxy system, ensuring suitability for direct installation onto the concrete substrate.

CHECK TEMPERATURE & HUMIDITY

Maintain floor temperature and materials within the range of 65°F (18°C) to 90°F (32°C). Ensure humidity levels are below 95%. Refrain from applying the coating unless the floor temperature exceeds the dew point by at least 5°F.

SURFACE PREPARATION

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.

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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.

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

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.

CLEANUP

Thoroughly clean the mixing station, tools, and equipment as necessary. Employ acetone, a solvent exempt from volatile organic compounds (VOC), for cleanup. Adhere to all applicable legal, health, and safety guidelines when managing or storing solvents and materials, especially in confined spaces. Ensure that the work areas are adequately ventilated throughout the placement and curing processes.

MAINTENANCE

Examine the installed floor through spot cleaning and addressing any areas that may have sustained damage or cracks. To extend the longevity of the flooring system, it is strongly advised to implement a daily maintenance regimen to ensure that the floor remains safe for its intended use.

DISPOSAL

Dispose of empty containers and any other waste materials in compliance with federal, state, provincial, and local regulations.