



Planiseal[®] PMB

One-Component, Polyurethane Moisture Barrier and Bonding Agent



DESCRIPTION

Planiseal PMB is a one-component, moisture-curing, polyurethane compound designed to provide moisture vapor emission protection for wood and bamboo flooring on damp concrete substrates. It also serves as a bonding agent and moisture barrier system for self-leveling underlayments when applied in a double-coat method with dry sand.

FEATURES AND BENEFITS

- Single-component, with no mixing required
- Zero VOCs
- Compatible with MAPEI urethane and hybrid-polymer-based adhesives
- No moisture limits, and no moisture testing required

INDUSTRY STANDARDS AND APPROVALS

LEED v4 Points Contribution

LEED Points

Health Product Declaration (HPD)* Up to 2 points

* Using this product may help contribute to LEED certification of projects in the category shown above. Points are awarded based on contributions of all project materials.

Additional Green Certifications

- CRI Green Label Plus #GLP54548. Refer to the CRI's Website at www.carpet-rug.org for additional information.
- Living Building Challenge (LBC) Red List Free: This product has been verified per the most current Red List on the LBC's Website.

WHERE TO USE

- For controlling moisture vapor emissions from concrete slabs in preparation for wood or bamboo floor-covering installation
- For controlling moisture vapor emissions from concrete slabs and creating a bonding surface for self-leveling underlayments
- Residential applications (rental apartments, condominiums and homes)
- Commercial applications (office buildings and cafeterias)
- Heavy commercial applications (shopping malls, grocery stores and department stores)
- Institutional applications (hospitals, schools, universities, libraries and government buildings)

LIMITATIONS

- Do not install over substrates containing asbestos.
- Do not install over any adhesive residues.
- For interior installations only
- Do not install wood or bamboo flooring in areas not recommended by the manufacturer.
- Do not apply over standing water or slabs saturated with water.
- Do not dilute with water or solvent.
- Do not use traditional, polymer-modified patching or self-leveling compounds under *Planiseal PMB*. Only exterior-rated, cement-based materials can be used under *Planiseal PMB*.



- Do not use with MAPEI's *Ultrabond ECO[®] 995* flooring adhesive when the adhesive is applied using the Moisture-Control Method (using a clip-on trowel).
- Do not install in areas with known hydrostatic moisture problems.
- Use only when the substrate temperature is between 50°F and 90°F (10°C and 32°C).
- Do not install unless the temperature of the prepared concrete slab is at least 5 degrees F (2,8 degrees C) above the dew point, to avoid condensation.

SUITABLE SUBSTRATES

- Absorbent new/existing concrete that is at least 28 days old, both above grade and on grade

Consult MAPEI's Technical Services Department for installation recommendations regarding substrates and conditions not listed.

SURFACE PREPARATION

- All substrates must be structurally sound, dry, solid and stable. Substrates should be clean and free of dust, dirt, oil, grease, paint, curing agents, concrete sealers, loosely bonded toppings, loose particles, and any other substance or condition that may prevent or reduce adhesion.
- For direct application without mechanical profiling, concrete must be in pristine condition, without contamination, porous and with an International Concrete Repair Institute (ICRI) concrete surface profile (CSP) of #2 to #3. If these conditions are not present, mechanical profiling is required.
- Mechanical preparation of the surface should involve dustless, engineer-approved methods to obtain a CSP of #3. Ensure that all old adhesives, contaminants, curing compounds, oils, silicates, dust and other bond breakers are completely removed. Inadequate surface preparation may lead to pinholing, bubbling, bond loss and subsequent failure of the moisture barrier.
- Refer to National Wood Flooring Association guidelines for substrate tolerance (flatness), which specify 3/16" (4,5 mm) in a 10-foot (3,05-m) radius.

See MAPEI's "Surface Preparation Requirements for Self-Leveling Underlayments" document in the Reference & Installation Guides section of the Floor Covering Installation Systems page on MAPEI's Website.

MIXING

Choose all appropriate safety equipment before use. Refer to the Safety Data Sheet for details.

- Ready to use; no mixing is necessary.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

Moisture control for direct-bond applications of wood/bamboo flooring

1. Pour *Planiseal PMB* directly onto the substrate in a wide ribbon.
2. Immediately smooth the material with a well-saturated 1/4" (6 mm) nap roller, using even and consistent strokes to achieve 100% coverage.
 - Do not allow the product to create a film on the surface. Work the product completely into the concrete surface. Allowing the formation of a film can result in foaming of the product. If foaming occurs, scrape the surface to remove any friable surface material and proceed normally.
 - Avoid contact with baseboards and other vertical surfaces.
3. Allow *Planiseal PMB* to cure for about 2 hours or until completely dry to the touch.
4. Install wood or bamboo flooring using urethane, hybrid-polymer or modified silane adhesives within 24 hours after application of *Planiseal PMB*.
 - If flooring will be installed after 24 hours, apply an additional thin coat of *Planiseal PMB* using a saturated 1/4" (6 mm) nap roller. Then broadcast oven-dried sand – graded, free of fines and with a mesh size of 16 to 30 – onto the wet material to rejection. The amount of sand needed is about 0.5 to 1 lb. per sq. ft. (2,44 to 4,88 kg per m²). Follow NIOSH safety guidelines when broadcasting with sand. Once the sand is properly broadcast, allow the system to cure for at least 4 hours before exposing it to foot traffic. Remove the excess sand after at least 6 hours by sweeping and vacuuming. Wood and bamboo flooring can then be installed using urethane, modified-silane or hybrid-polymer adhesives directly on the surface.
 - Note: Do not install wood/bamboo flooring with *Ultrabond ECO 995* using the Moisture-Control Method (with a clip-on trowel). *Ultrabond ECO 995* can be used but only with traditional trowel usage. Do not create a monolithic layer with this adhesive over *Planiseal PMB*.

Moisture control and bonding agent for self-leveling underlayments

1. Pour *Planiseal PMB* directly onto the substrate surface in a wide ribbon.
2. Immediately spread out and smooth the material with a well-saturated 1/4" (6 mm) nap roller, using even and consistent strokes to achieve 100% coverage.
3. Allow the material to completely dry (for about 2 to 3 hours).
4. Apply an additional thin coat of *Planiseal PMB* using a saturated 1/4" (6 mm) nap roller. Then broadcast oven-dried sand – graded, free of fines and with a mesh

Product Performance Properties

Laboratory Tests	Results
Polymer type	Polymeric methylene diisocyanate
Solids content	100%
VOCs (Rule #1168 of California's SCAQMD)	0 g per L
Flash point (Tag)	> 200°F (93°C)

Shelf Life and Product Characteristics (before mixing)

Shelf life	1 year when stored in original, unopened packaging at 73°F (23°C)
Physical state	Liquid
Color	Amber

Protect containers from freezing in transit and storage. Provide for heated storage on site and deliver all materials at least 24 hours before work begins.

Application Properties at 73°F (23°C) and 50% relative humidity

Substrate temperature range	50°F to 90°F (10°C to 32°C)
Drying time of first coat	2 to 3 hours
Drying time of second coat	4 hours

Packaging

Size	Pail: 3.5 U.S. gals. (13,2 L)
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Approximate Coverage* per 3.5 U.S. gals. (13,2 L)

Flooring Type	Coverage
Smooth concrete	400 to 600 sq. ft. (37,2 to 55,7 m ²)
Rough concrete	350 to 525 sq. ft. (32,5 to 48,8 m ²)

* Coverage shown is for estimating purposes only. Actual jobsite coverage may vary according to substrate conditions.

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size of 16 to 30 – onto the wet material to rejection. The amount of sand needed is about 1 lb. per sq. ft. (4,88 kg per m²). Follow NIOSH safety guidelines when broadcasting with sand.

5. Once the sand is properly broadcast, allow the system to cure for at least 4 hours before exposing it to foot traffic. Remove the excess sand after at least 6 hours by sweeping and vacuuming.
6. Self-leveling underlayments can then be placed directly onto the surface without the need for additional priming. Apply underlayments according to their respective Technical Data Sheets.

CLEANUP

- Clean tools with mineral spirits while the product is still fresh/wet.

PROTECTION

- Protect the application area from traffic and other trades until the final installation of flooring.

RELATED DOCUMENTS

ACI: 302.2R-06 – Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials

Refer to the SDS for specific data related to health and safety as well as product handling.

LEGAL NOTICE

The contents of this Technical Data Sheet (“TDS”) may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in effect at the time of the MAPEI product installation. For the most up-to-date TDS and warranty information, please visit our website at

www.mapei.com. **ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI WARRANTIES.**

Before using, the user must determine the suitability of our products for the intended use,

and the user alone assumes all risks and liability. **ANY CLAIM SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING TO US WITHIN FIFTEEN (15) DAYS FROM DATE IT WAS, OR REASONABLY SHOULD HAVE BEEN, DISCOVERED.**

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