



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 on damp concrete substrates in a single- or double-coat application method as well as a vapor retarder using a single-coat method over wood 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

Green certifications

- 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 and creating a bonding surface for self-leveling underlayments using a double-coat application method with sand broadcast
- For controlling moisture vapor emissions from concrete in a double-coat method for direct-bond application of adhesives or placement of primers and self-levelers

- For retarding moisture transmission in a single-coat application method on suitable wood substrates before glue-assist installations of wood flooring
- For controlling moisture vapor emissions from concrete with a single-coat application method when combined with a MAPEI urethane or hybrid-polymer wood/bamboo flooring adhesive

LIMITATIONS

- Do not install over substrates containing asbestos.
- Do not install over any adhesive residues.
- For interior installations only
- Do not install 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 high-moisture-resistant, 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 Fahrenheit (2.8 degrees Celsius) 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
- Approved wood subfloor construction per the wood-flooring manufacturer's recommendations

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, concrete must be in pristine condition, porous and without contamination. If these conditions are not present, profile the surface using dustless, engineer-approved methods to prepare the surface to a minimum International Concrete Repair Institute (ICRI) concrete surface profile (CSP) of #1 to #2.
- 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 the "Surface preparation requirements for self-leveling underlayments" reference guide in the Floor Covering Installation Systems section of MAPEI's Website.

MIXING

Before product use, take appropriate safety precautions. 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 at a rate of about 6 to 8 mils in wet film thickness (WFT). Avoid contact with baseboards and other vertical surfaces.
3. Work the product completely into the concrete surface. Do not allow the product to create a film on the 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.
4. Allow *Planiseal PMB* to cure for about 2 hours or until completely dry to the touch. Pinholes and voids in coverage can be treated by a secondary application of *Planiseal PMB* over the open area using a microfiber pad or paint brush.

5. Install wood or bamboo flooring using urethane, hybrid-polymer or modified silane adhesives within 24 hours after application of *Planiseal PMB*.

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 for direct-bond applications of approved* resilient/carpet adhesives, primers and self-leveling underlayments

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 at a rate of about 6 to 8 mils WFT. Avoid contact with baseboards and other vertical surfaces.
3. Work the product completely into the concrete surface. Do not allow the product to create a film on the 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.
4. Allow *Planiseal PMB* to cure for about 2 hours or until completely dry to the touch.
5. Apply a second tight coat (of 4 to 6 mils) of *Planiseal PMB* over the first coat, making sure not to puddle the product or create thick layers.
6. Allow the second coat of *Planiseal PMB* to cure for about 4 hours or until completely dry to the touch.
7. Apply adhesives or primers to the cured surface of *Planiseal PMB* using directions found in their respective Technical Data Sheets (TDSs) for their use over nonporous substrates.

*For adhesive and primer recommendations, refer to the MAPEI technical bulletin "Adhesives and primers over *Planiseal PMB*."

Moisture control and bonding agent for self-leveling underlayments

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 at a rate of about 6 to 8 mils WFT. Avoid contact with baseboards and other vertical surfaces.
3. Allow the material to completely dry (for about 2 to 3 hours).
4. Apply an additional thin coat (of 4 to 6 mils) of *Planiseal PMB* using a saturated 1/4" (6 mm) nap roller. Then immediately broadcast oven-dried sand – graded, free of fines and with a mesh size of 16 to 30 (such as *Mapesand Coarse*) – 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.

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

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)

Approximate Coverage* per 3.5 U.S. gals. (13.2 L)

700 to 800 sq. ft. (65.0 to 74.3 m ²) per single coat

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

Planiseal PMB



Continued from Page 2

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 priming.
7. Apply underlayments according to their respective TDSs.

Vapor-retarding method for use over approved wood substrates

1. Pour *Planiseal PMB* directly onto the substrate 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 at a rate of about 6 to 8 mils WFT. Avoid contact with baseboards and other vertical surfaces.
3. Allow the material to completely dry (for about 2 to 3 hours).
4. Install wood flooring using the glue-assist method following industry standards.

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.

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

For information on MAPEI's commitment to sustainability and transparency, as well as how MAPEI products may contribute to green building standards and certification systems, contact sustainability_USA@mapei.com (USA) or sustainability-durabilite@mapei.com (Canada).

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 nor 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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Edition Date: September 19, 2022
MK 3000162 (22-2534)