

1. PRODUCT NAME

MB25 (Moisture Barrier 25)

2. MANUFACTURER

PROFLEX® Products, Inc.
2826 Broadway Center Blvd
Brandon, Florida 33510
Telephone: 863-937-9623
Toll Free: 877-577-6353
Fax: 863-937-9624
Internet: www.proflex.us



3. PRODUCT DESCRIPTION

PROFLEX® MB25 is a two component, epoxy reaction resin based sealer for professional flooring installation over damp sub floors. MB25 will mitigate moisture pressure from a humid sub floor to an acceptable level for any flooring installation. It will bridge minor cracks in the sub floor. MB-25 spreads easily and creates a dust free surface ready for safe installation of flooring.

Advantages

- Moisture barrier up to 25# or 100% RH
- Use under any flooring (Wood, Laminate, VCT, LVT, LVP, Sheet Vinyl, Tile, Carpet etc.)
- Contains no water, solvents or VOCs

Approved Sub Floors

- Concrete Slabs
- Vinyl (well bonded, grinded, tested negative for asbestos)
- Ceramic Tiles
- Stone
- Terrazzo
- Radiant Heated Sub Floors
- Wet Concrete Slab up to 25#/24hrs/1000SF and 100% RH

Packaging

2 ½ US Gallon (9.46 L), 60 per pallet

Approved Trowels and Spread Rate

Foam Roller up to 140 SF/gal, PROFLEX® Rake Trowel (7/64" x 5/64" Notch; up to 70 SF/gal)

4. TECHNICAL DATA

Shelf Life

24 Months in original; unopened container

Climate Conditions

50° - 90° F 30%-80% humidity.

Drying Time before Installation

Between 12 and 18 hours, completely hardened after 7 days

Pot Life

approx. 25 min @ 70 °F (21 °C)

Storage

Above 14°F

Transportation

UN 2735 Polyamines DOT Class 8 Corrosive
Above 14°F

5. INSTALLATION

Pre-Installation Checklist

A successful installation requires proper preparation of the sub floor. Read and understand all applicable guidelines and technical data sheets before installation. Follow industry standards and flooring manufacturer's recommendations for sub floor moisture content, design, layout and application of flooring materials. All slab constructions must meet the specific requirements of the floor covering to be installed.

Sub Floor Examination

Do not apply sealer onto a visibly damp or wet surface. Examine concrete sub floor for color, cleanliness, porosity and pre-existing residues PRIOR TO installation. Concrete sub floors must be checked for any contaminants.

New concrete

Slab should be free of all construction contaminants such as mud, dirt, curing compounds, paint overspray, dry wall mud, oil, grease, etc. If oil based or chemically treated sweeping compounds were used, slab will be contaminated. Sand or grind until contaminants are removed, then vacuum and damp mop the slab. After installation of sealer, the appearance may not be uniform due to varying degrees of porosity in the slab, which does not affect the degree of moisture remediation.

Existing concrete:

a) What color is the concrete? Concrete is typically grey in color. If concrete is NOT grey, it is either coated with or contains contaminants. All such contaminants must be completely removed by either grinding or shot blasting until grey in color.



Contaminated Floor



Clean Sub Floor

b) Any cutback/bitumen/tar/asphalt removal process, whether mechanical or chemical, will leave residues in the capillaries and on top of the concrete. These residues must be completely removed by either grinding or shot blasting until grey in color.



Cutback Residues



Clean Floor after Shot Blasting

c) When is the subfloor considered clean? After vacuuming and tacking, check for dust and particles removal by wiping a white cloth across the surface. Continue vacuuming and tacking until white cloth does not pick up dust or other particles.



Dirt on Sub Floor



Clean Sub Floor

d) To check to see if a curing compound or sealer is on the concrete surface, place a water drop on the concrete and observe if the water beads and does not absorb into the subfloor. If so, then there is a compound on the concrete that needs to be removed. Remove the compound by grinding or shot blasting, vacuum and tack the floor. Then repeat the water drop test. Absorption should take place within one minute. We recommend using the PROFLEX® Epoxy Test Kit.



CONCRETE SLAB CONTAMINANTS

Elevated levels of inorganic or organic contaminants in concrete can prevent proper adhesion of primers, sealers, and adhesives to the surface of the slab. In order to measure these contaminants core samples need to be extracted from the concrete slab. Two core samples should be taken for the first 10,000 SF of sub floor, and one additional core sample for every additional 10,000 SF. Extraction should be done dry if at all possible. Core sizes should be 1-4 inches in diameter and 1-4 inches in length.

Inorganic contaminants are salts that are usually transported to the surface by the evaporating water during the drying process. They will accumulate and form a very hard, yet unstable crust. Primers and sealers will stick to that crust, which in turn has only a limited adhesion to the concrete below and could break loose once mechanical stress is put on the sealer. In addition, these salts will "attract" more water from underneath and increase the surface moisture.

Testing for water soluble inorganic content using ion chromatography is to be performed at a sample depth of 0-3 mm and 3-6 mm below the surface of the slab for sodium (Na⁺), potassium (K⁺), sulfates (SO₄²⁻), and chlorides (Cl⁻). Based on an extensive database of core samples across the USA, the following "normal" concentration levels have been established:

Na⁺: 200 - 800 ppm
K⁺: 200 - 800 ppm
SO₄²⁻: 1500 - 5500 ppm
Cl⁻: 10 - 100 ppm

Organic contaminants such as oil, grease, fatty esters, are typically brought upon the surface after the installation of the slab to enhance and/or accelerate the curing process. Waterborne primers and sealers will have a low tolerance for such contaminants, epoxy based sealers are able to penetrate a higher percentage of such contaminants.

Solvent soluble organic content is detected using IR spectroscopy and provides a concentration for organic contaminants like oil, grease, fatty esters, fatty carboxylate salts in the 0-3 mm layer of the core sample. Acceptable levels of these organic contaminants are:

For water based primers, sealers, and adhesives: < 300 ppm
For alcohol based primers and adhesives: < 500 ppm
For epoxy based sealers and urethane adhesives: < 700 ppm
One out of many testing laboratories that we can recommend is:

Mineralogy, Inc.
Phone 877-744-8284
Fax 918-743-7460
3228 East 15th Street
Tulsa, OK 74104
Email: info@mineralogy-inc.com

Prior to installation, the subfloor must be checked according to applicable installation guidelines. It must be solid and sound, permanently dry, clean, free of chaps and anti-adherents, as well as resistant to pressure and tension. Moisture content of all floors must be measured before installation.

Sub Floor Preparation

Depending on type and condition of sub floor, a mechanical treatment (e.g. mechanical brushing, grinding, sanding, shot or bead blasting) is required. Intensity of such work must be determined at the site by the installer. Dust, paint, residual adhesives (not limited to cutback adhesive) or other surface pollution must be removed by suitable means. We recommend cleaning the surface with an industrial vacuum cleaner. Cracks and gaps must be filled with concrete crack filler prior to application of primers, sealers, leveling compounds, and/or adhesives unless they are expansion joints. (For details, see technical datasheet @ www.proflex.us).

Treatment of Cracks and Gaps

There are several types of cracks and gaps that need to be treated differently.

a) Hairline or spider web cracks:

They are typically less than 1/32" wide and only topical. They do not need to be treated prior to application of sealers.

b) Stress cracks or relief cuts:

They are over 1/32" up to 1/8" wide. They will need to be filled with a PROFLEX® CF-20 concrete crack filler.

c) Relief cuts or non-moving voids:

They are over 1/8" wide and may go all the way through to the bottom of the slab. A PROFLEX® Backer Rod will need to be inserted into the void to retain the crack filler. Fill the remaining void with a PROFLEX® CF-20 concrete crack filler.

d) Dynamic or moving joints:

They are intentional separations between two sections of concrete that allow for expansion and contraction. They will need to be honored throughout the entire installation. The usage of the facility and the amount of movement will determine the appropriate product and installation procedure. PROFLEX® EJJ (Expansion Joint Filler)

Mixing of Components

Lid contains hardener. Pierce all the way through plastic disc in center of lid and the bottom of the lid using a long screwdriver or similar tool. Let the hardener flow into the lower part of the bucket for one minute. All of the hardener must drain into the pail before mixing parts A&B. Open ring, remove the lid and mix both components with mixing paddle for at least 3 minutes. Use an electric drill with no more than 300 rpm until an even color is reached. Avoid air entrapment by mixing slowly and using an appropriate mixing paddle. Make sure to mix along wall and bottom-part of the container as well. Temperature of both components should be at least 50 °F before mixing. Empty pail onto floor immediately after mixing to prevent sealer from heating up and drying in the pail.

Installation Procedure

Mix pail according to mixing instructions. Apply sealer undiluted with approved applicator. Make sure sealer is spread evenly and up to the perimeters. The spread rate is critical for a successful installation. Do not exceed the maximum coverage. For sub floor moisture up to 18#/24hrs/1,000SF (calcium chloride test) or 97% RH (in-situ probe), spread MB-25 with a foam roller over no more than 140 SF/gal. For sub floors with a moisture content up to 25#/24hrs/1,000SF (calcium chloride test) or 100% RH (in-situ probe), spread MB25 with PROFLEX® Rake Trowel over no more than 70 SF/gal. (For use under resilient flooring, see technical datasheet @ www.proflex.us).

Installing VCT, LVT, Sheet Vinyl, Rubber over Damp Sub Floors

Products such as VCT, LVT, LVP, SVP, Sheet Vinyl, rubber or carpet with vinyl backing may be installed over damp sub floors as long as sub floors are properly sealed and prepared for the flooring. The condition of the sub floor and/or the type of flooring to be installed will determine if the floor needs to be leveled. Then follow the appropriate instructions below.

Flooring Installation Recommendations:

A) In areas where leveling is NOT REQUIRED to lay the flooring the following adhesives are recommended for a direct bond to MB25:

Resilient Flooring Installations: PROFLEX® PS100 (see Product Data Sheets for more information)

Wood Flooring Installations: PWA 200, Pro-Bond (see Product Data Sheets for more information)

B) In areas where leveling is REQUIRED to lay the flooring the follow procedure is required:

1) Spread MB-25 with approved applicator. Do not exceed recommended coverage for intended application. Let sealer dry overnight (approx. 12-18 hours).

2) Next spread PROFLEX® SP-1 with Foam or 1/8" Nap Roller. Coverage should be around 140 SF/gal. Let primer dry for approx. 1-2 hours until it changes color from milky white to clear. PROFLEX SP-1 will provide a bonding surface for the leveling compound.

- 3) Spread Leveling Compound such as PROFLEX® DPU or SLU or patching compounds PROFLEX® Feather Flex, PSP, or PSP+, at $\frac{1}{8}$” onto PROFLEX® SP-1 and allow to dry.
- 4) Spread Flooring Adhesive following manufacturer's recommendations.

C) *Tile Flooring Installations:* Spread PROFLEX® SP-1 with Foam or 1/8” Nap Roller. Coverage should be around 140 SF/gal. Let primer dry for approx. 1-2 hours until it changes color from milky white to clear.

Using non-PROFLEX® adhesives or leveling compounds over Proflex Sealers

If using a non-PROFLEX® leveling compound, make certain it will bond to the PROFLEX® Sealer or Primer by checking with the manufacturer for their requirements to use their product over acrylic or epoxy sealers and primers. Testing in an inconspicuous area prior to installation is recommended. PROFLEX® cannot warrant the performance of other manufacturers' products nor their compatibility with PROFLEX® sealers and primers.

If no leveling is required, a pressure sensitive or contact adhesive can be spread directly over the PROFLEX® Sealer. Again, if not a PROFLEX® product, make certain that the adhesive being used is approved over either an acrylic or epoxy-based sealer or primer by checking first with the adhesive manufacturer.

When installing non-porous flooring directly over a sealer, it is absolutely necessary to let the adhesive flash and become tacky (check with adhesive manufacturer for flash time) before placing the flooring into the adhesive since it will be sealed from both sides once the flooring is laid and it will not be able to dry any further.

6. AVAILABILITY

PROFLEX® Products are available nationwide.

To locate PROFLEX® products in your area, please contact:

Phone: 877-577-6353

Website: www.proflex.us

7. WARRANTY

Limitations

When using other than PROFLEX® products in conjunction with PROFLEX® primers, sealers, leveling compounds, or adhesives, PROFLEX® denies any and all responsibility for any ensuing problems and/or damages without prior written authorization from PROFLEX®. MB-25 is not suitable in conditions where there is a missing or compromised vapor barrier causing hydrostatic pressure. (See warranty for full details.) Do not dilute primer/sealer or mix with other products.

In case of accident, injury, spill or exposure, see SDS sheet for information. Consult technical data sheet at www.proflex.us for updated information.

Sealer will not prevent moisture damages from hydrostatic pressure, underground springs, damaged water pipes, sinks, ice makers, faulty plumbing, flooding, etc.

8. MAINTENANCE

Non-applicable.

9. TECHNICAL SERVICES

Toll Free: 877-577-6353

Fax: 863-937-9624

Technical and safety literature

To acquire technical and safety literature, please visit our website www.proflex.us

10. FILING SYSTEM

Division 9