

# KOVARA<sup>®</sup> MBX

Moisture barrier for protection of flooring assemblies up to 99.5% relative humidity

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## Product Description

KOVARA<sup>®</sup> MBX moisture barrier is designed to be laid down above concrete floor slabs and below floor coverings to protect these materials — as well as their adhesives — from any staining, warping or mold that may result from water vapor emissions and alkaline salts infiltrating through the concrete slab up to 99.5% relative humidity. KOVARA<sup>®</sup> MBX consists of a three-layer composite construction, with a HDPE bottom layer for moisture protection, glass mat middle layer for dimensional stability, and dark blue mineral top layer to enhance adhesive bond.

KOVARA<sup>®</sup> MBX is installed with KOVARA<sup>®</sup> Double Sided Tape and KOVARA<sup>®</sup> MBX Seam Tape to protect the seams above and below the membrane respectively. When moderate or heavy rolling loads are expected, additional application of KOVARA<sup>®</sup> Double Sided Tape is required in a 5' x 5' or 2.5' x 2.5' box grid configuration. Refer to the KOVARA<sup>®</sup> Box Grid Application Method on [gcpat.com](http://gcpat.com) for additional information.

## Product Advantages

- Installation in a fraction of the time of epoxy-based moisture barriers
- Reduced labor costs and improved project capacity for contractors
- Reduced downtime and business disruption for building owners
- No shotblasting required
- Resistant to heavy rolling loads
- Does not support mold or mildew growth
- 10-year product warranty

## Warranty

KOVARA<sup>®</sup> moisture barriers are backed by a limited 10-year replacement warranty. You can find the entire KOVARA<sup>®</sup> MBX warranty information at [gcpat.com](http://gcpat.com), or contact your GCP Applied Technologies sales representative for details.

## Technical Services

KOVARA<sup>®</sup> MBX customers benefit from GCP's Technical Service team, providing field support for successful job completion.

## Product Uses

KOVARA<sup>®</sup> MBX can be used under any of these approved floor coverings:

- Carpet tile
- VCT-vinyl composition tile
- SVT-solid vinyl tile
- LVT/LVP-luxury vinyl tile/luxury vinyl plank
- SDT-static dissipative tile
- Laminate flooring
- Ceramic tile
- Porcelain tile
- Natural stone
- Broadloom carpet
- Woven synthetic-backed stretch-in, double glue and direct glue carpet
- PVC backed carpet
- Urethane foam backed carpet
- Compressed urethane backed carpet
- Recycled backed carpet
- Engineered wood-floating or direct glue
- Bamboo

The following specialty floors require review to verify existing conditions and use to ensure the best installation; please contact your local GCP flooring sales rep or GCP Technical Services for a warranty registration form or any other questions.

- Commercial and residential sheet vinyl flooring
- Rubber flooring
- Resilient sports flooring
- Wood court flooring

## Installations Guidelines

### Slab RH Testing and Pre-Installation Requirements

All concrete slabs, regardless of grade, should be tested for moisture content using the approved method of RH in-situ probe testing in accordance to the latest version of ASTM F-2170. Slabs should only be tested 28 days after pour and once the slab has been allowed to realize appropriate service conditions, which includes permanent heat/HVAC operations and complete enclosure of the space.

Acclimate all flooring materials and adhesives in accordance with the flooring manufacturer's recommendation. Floors and the planned installation space should be conditioned at least 48-72 hours prior to the start of the installation. Environmental conditions should remain constant during the installation and after the installation is completed. Permanent HVAC should be in operation and set to between 65°F - 85°F.

Always inspect KOVARA® MBX, KOVARA® tapes, and flooring materials for physical damage and/or defects. The installation of defective or damaged materials, in most cases, may deny any future rights to a claim.

KOVARA® MBX installations, including floor preparation and finished flooring, should not be started or installed where further trade work on or above the product will be required. Always read the associated documentation and installation instructions for all flooring, adhesives and underlayment to be installed.

When selecting adhesives, KOVARA® MBX is considered a non-porous surface. The appropriate adhesive, recommended trowel size and/or spread rate should be specified by the flooring manufacturer. If considering adhesives classified for wet-set applications, contact GCP Technical Services for specific application recommendations.

### Concrete Substrate Preparation

All of the recommended work practices contained in these guidelines are in conformance with the most recent version of ASTM-710 and acceptable industry guidelines as approved by RFCI. The installation contractor is solely responsible for determining the suitability of a slab, moisture testing and use prior to starting the installation of KOVARA® MBX.

The concrete slab should be smooth, dry, clean and structurally sound. Dust and other contaminants may have an effect on the mechanical bond of the KOVARA® tapes to the substrate and overall performance of the system.

All surface cracks, grooves, depressions, control or other non-moving joints greater than 1/8" should be filled and sanded smooth with the plane of the substrate using modified Portland cement patching compounds or an epoxy injection. Crowns in slab or protrusions should be smoothed in the same manner. Patching materials should be allowed to completely dry prior to the application of KOVARA® MBX and finished flooring materials.

Existing adhesives should be completely removed to provide a tack-free substrate. Please follow the RFCI's (Resilient Floor Covering Institute) "Recommended Work Practices for Removal of Existing Floor Covering and Adhesive."

Substrates that have been installed with cutback adhesives should only be removed in strict accordance with local, state and federal guidelines. If the slab has been abated using a chemical process, immediately contact GCP Technical Services for additional encapsulation and installation recommendations.

Do not use gypsum - or plaster-based patching compounds underneath KOVARA® MBX. Areas requiring deep fill, other than a skim coat, should only be repaired using a MRP (moisture resistant patch) or exterior grade patching/repair compound. Consult your manufacturer for additional recommendations on these types of substrate repair products.

### Installation Over Existing Resilient Flooring

Ensure the existing floor is well bonded and securely attached. Such installations should not exceed one layer of non-cushioned resilient flooring beneath KOVARA® MBX.

The existing floor must show no indication of failure related to moisture or alkalinity. Tiles that have de-bonded, cracked or cupped should be removed and replaced with new flooring tile or filled with an approved patching compound to smoothly transfer to the surrounding flooring materials.

Floors with embossed surfaces or textures should be made smooth using an approved latex embossing leveler or modified Portland cement patching compound approved for this process.

All waxes and/or sealers should be removed using industry approved methods prior to the installation of KOVARA® tapes and encapsulation KOVARA® MBX.

### KOVARA™ MBX Installation

Apply KOVARA® 4" double-sided tape at all doorways and transitions to other flooring materials to prevent air from entering below the system or movement of the KOVARA® MBX. If the floor to be installed will be heavily trafficked or used with heavy rolling loads, please refer to the Box Grid Application Method on [gcpat.com](http://gcpat.com) before continuing.

Evaluate the KOVARA® MBX seam layout by measuring across the room and laying chalk lines to clearly identify the seam line locations. These lines will serve as a guide for setting the required 4" double-sided tape correctly. Begin by setting the first chalk line 4'10" away from one wall, and then measure all subsequent lines at 5' intervals away from the first chalk line. Continue this pattern across the entire room.

When installing around floor monuments, columns, or poles, splice the KOVARA® MBX to fit around the obstructions and tape to secure the seams in this area.

Begin placing the tape by anchoring the double-side tape along the first chalked line. The edge of the tape closest to the first wall should sit right along the chalk line. Pull the tape across the entire length of the seam line. Set the KOVARA® Double Sided Tape in place and roll the KOVARA® Double Sided Tape, ensuring that you have removed any wrinkles and the tape is flat. **DO NOT REMOVE THE RELEASE FILM FROM THE KOVARA® DOUBLE-SIDED TAPE AT THIS TIME.** Continue the process by placing tape at each of the newly snapped chalk lines, with the edge of the tape closest to the first wall sitting along the chalk line.

Unroll the KOVARA® MBX material starting at a wall, ensuring that the first piece falls exactly centered across the installed KOVARA® double-sided tape. The smooth, glossy side of the KOVARA® MBX should be facing the substrate (down) and the rough, textured side should be facing up. Net fit to walls and trim to fit. Individual cuts should not exceed 30 linear feet in length.

Repeat the previous step to complete the layout of subsequent pieces, ensuring that the end cuts are staggered to allow the offset of cross seams.

Working from one side of the room, lightly butt the first two adjacent pieces of KOVARA® MBX together ensuring that both sheets fall centered over the previously placed KOVARA® double-sided tape. Continue by removing the release film through the seam, while at the same time setting the KOVARA® MBX membrane into the tape. Continue this process across the entire installation, and roll all seams with either a hand roller or 75-100 pound resilient roller. **NEVER OVERLAP SEAMS** as it may telegraph through the finished flooring, and **NEVER USE COMPRESSION METHOD** at any seams.

Complete the installation by setting the blue KOVARA® MBX seam tape across the top of all side seams and cross seams. Maintain adequate tension on the tape when setting to minimize bubbling and wrinkling. Roll the seam with the approved roller.

## Finished Flooring Installation

Sweep the KOVARA® MBX membrane to remove any installation debris, dust or dirt that may have accumulated during the application. Complete the finished flooring installation in accordance with all manufacturer guidelines. Apply the adhesive directly to the surface of the KOVARA® MBX in accordance with the manufacturer's recommendation for non-porous substrates.

With the continuous advancement of flooring technologies, it is impossible to list all of the products that can be effectively installed using KOVARA® MBX. If your product is not included in the list of approved floor coverings, please contact GCP Technical Services for additional information. Always follow your specific flooring manufacturer's recommendations for installation over non-porous substrates.

Perform necessary planning and layout of all flooring materials. We recommend lighter chalks as they will be clearly seen on the surface of the KOVARA® MBX. Always adjust the layout to avoid seam joints falling directly over a KOVARA® MBX seam.

Caution should be taken to ensure the KOVARA® MBX membrane is not cut, damaged or punctured. Some adhesives may take longer to flash off and cure compared to installations over porous concrete. Always use a new trowel with the recommended notch for each application.

DO NOT install broadloom carpeting requiring crab stretching, stay nailing or heavy knee-kicking to align patterns; they can cause distortion to the KOVARA® MBX.

Do not mechanically fasten wood flooring through KOVARA® MBX. Regarding floating flooring systems, carefully follow all flooring manufacturer's recommendations for the installation.

Installing ceramic, porcelain, or natural stone tile materials requires KOVARA® MBX to be anchored to the substrate using KOVARA® double-sided tape in a 5'x5' box grid. Please refer to the KOVARA® Box Grid Application Method on [gcpat.com](http://gcpat.com).

When using a thin-set application method for ceramic, porcelain, or stone tile, either a polymeric modified or unmodified setting material is acceptable. Refer to the local building codes and ANSI/TCNA guidelines for approved installation practices.

## Initial Maintenance

Upon completion of the finished flooring installation, KOVARA® MBX requires a minimum of 120 hours (5 days) before conducting initial 'wet' cleaning or maintenance. Failure to follow this requirement may result in improper adhesive curing and/or failure of the adhesive bond. Always clean and maintain flooring with neutral pH cleaning products.

## Physical Properties

| PROPERTY                  | TYPICAL VALUE                | TESTING METHOD |
|---------------------------|------------------------------|----------------|
| Roll Size                 | 5' x 144' (720 sq. ft.)      | -              |
| Basic Weight              | 12.5 lbs. per 100 sq. ft.    | ASTM D2646     |
| Thickness                 | 28.0 mils                    | ASTM D5729     |
| Permeance                 | <0.1 perms                   | ASTM E96       |
| Maximum PH Allowed        | 12                           | -              |
| Fungi and Mold Resistance | Does not sustain mold growth | ASTM G21-15    |
| Flammability              | Passes                       | ASTM D2859-96  |
| Dimensional Stability     | Passes                       | ASTM D7570     |
| Radiant Panel             | Passes Class I               | ASTM E648-10   |
| Smoke Density             | <450                         | NFPA 258       |
| Residual Indentation      | Passes                       | ASTM F970      |

rt for successful job completion.

### gcpat.com | North America customer service: 1-866-333-3726

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