



MVP4®

MOISTURE VAPOR PROTECTION, ANTI-FRACTURE AND NOISE REDUCTION MEMBRANE

KEY FEATURES

- Warranty for unlimited moisture vapor protection
- Noise reduction typical of 1/4" cork
- Allows visual inspection of membrane prior to flooring installation

DESCRIPTION

MVP4® Moisture Vapor Protection is a one-part, trowel applied, moisture cure urethane membrane designed to be used beneath glue-down installations of engineered, solid and bamboo hardwood flooring. MVP4® is exceptionally easy to trowel and is designed to minimize moisture vapor transmission from the subfloor, create a noise reduction barrier over the substrate, and establish an anti-fracture membrane that can bridge cracks that can occur in the substrate prior to or after installation (up to 1/8"). MVP4® may be applied prior to any Bostik hardwood adhesive to achieve a warranty for unlimited moisture vapor protection. This membrane has low VOC's (as calculated per SCAQMD Rule 1168) and does **NOT** contain any water. MVP4® comes with Bostik's BLOCKADE® antimicrobial protection, which inhibits the growth of bacteria, mold or mildew on the surface of the cured membrane. The cured membrane resists stains caused by mold.

SUPERIOR MOISTURE PROTECTION

MVP4® has extremely low moisture vapor permeability and is not adversely affected by moisture. As a result, costly and time consuming concrete moisture testing is not required when 1) the slab is properly prepared, dry to the touch, and fully cured, and 2) MVP4® is used in conjunction with an approved Bostik adhesive. Approved Bostik adhesives are identified on the Bostik Limited Warranty for Hardwood Flooring Installation Products that can be found on the Bostik website, www.bostik.com/us.

SUPERIOR SOUND CONTROL

MVP4® provides a premium sound reduction barrier over the substrate that typically outperforms 1/4" thick cork underlayment (when used as a system with Bostik's Best®). This eliminates the costly labor and materials required to transport and install these secondary acoustical sheet membranes. Independent testing laboratory results are summarized on the table to the right (when is used as a system with Bostik's BEST®).



SOUND REDUCTION PERFORMANCE

(when used as a system with Bostik's BEST)

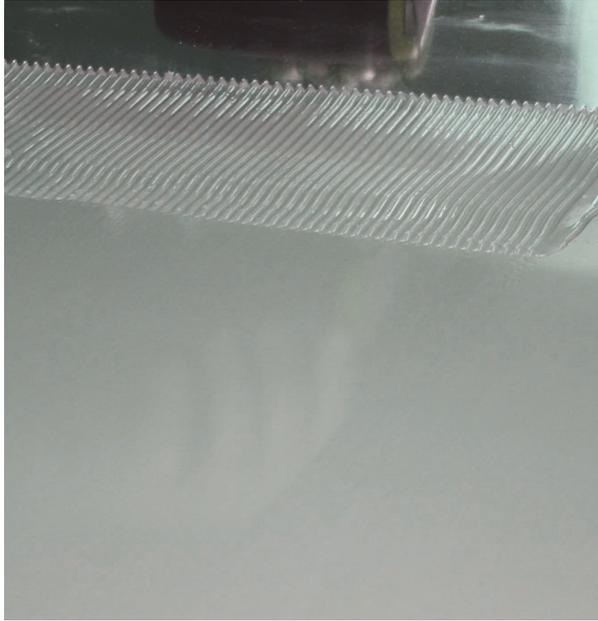
| Subfloor Type | Flooring Type | Ceiling Type | Results | Test |
|---------------|------------------|-----------------------|---------|------|
| 6" Concrete | 9/16" Engineered | 5/8" Suspended Gypsum | 62 | IIC |
| 6" Concrete | 9/16" Engineered | 5/8" Suspended Gypsum | 61 | STC |
| 6" Concrete | 9/16" Engineered | None | 49 | IIC |
| 6" Concrete | 9/16" Engineered | None | 52 | STC |

ANTI-FRACTURE PERFORMANCE

MVP4®'s elastomeric characteristics establish an anti-fracture membrane that can bridge cracks up to 1/8" (3mm) which can occur in the substrate prior to or after installation. This superior elasticity allows the membrane to move with the wood as it expands and contracts with changes in humidity and temperature over the life of the floor.

ULTIMATE VERSATILITY

This high performance formulation may be used beneath engineered, solid, bamboo, cork, and parquet flooring with no restrictions on board width or length. It may be used over all



properly prepared substrates common to hardwood flooring installations, including concrete, cement patch/underlayments that have no moisture vapor limitation (such as Bostik SL-100™, SL-150™, SL-175™, SL-200™ Webcrete® 95, Webcrete® 98 or UltraFinish™ Pro). This membrane can also be used prior to the installation of glue-down plywood as described.

LEED® CONTRIBUTION

This low VOC formulation (as calculated per SCAQMD Rule 1168), may contribute toward LEED® credits under section EQ 4.1: Low-Emitting Materials—Adhesives & Sealants.

DIRECTIONS FOR USE

Read and understand data sheet completely before beginning installation. Follow industry standards, as well as flooring manufacturer's recommendations for acclimation, design, layout and application of wood flooring material. If jobsite conditions are outside of flooring manufacturer's recommendations, take necessary corrective actions. Whether the moisture content of substrate exceeds or is within the flooring manufacturer's recommendations, to address current or possible future subfloor moisture, and cracks (up to 1/8"), apply MVP4® as directed and allow it to cure for a minimum of 12 hours prior to the use of an approved Bostik adhesive to glue down the flooring.

SURFACE PREPARATION

Surfaces must be absorptive, clean, free from loose materials, oil, grease, sealers, curing compounds, waxes, silicates, laitance, and all other surface contaminants that may inhibit proper bond. Completely remove cutback adhesive residue or other surface contaminants by diamond grinding, or shot blasting to open the pores of the concrete. All surfaces to be treated must have a concrete surface profile (CSP) of 1-3 (similar to a broomed finish), as defined by ICRI (International Concrete Repair Institute, Guideline No. 03732). Maximum acceptable floor variation is 3/16" in 10 feet. Areas requiring patching or leveling must be done using a Portland cement-based material (e.g., Webcrete® 95, Webcrete® 98, UltraFinish™ Pro and SL-100™, SL-150™, SL-175™, and SL-200™ Self Leveling Underlayments).

OPEN TIME CHART

| Temperature | Humidity | | | |
|---------------|----------|-----------|-----------|-----------|
| | 40% | 60% | 80% | |
| 60 °F (16 °C) | Tack | 2 Hours | 1.6 Hours | 1.3 Hours |
| | Open | 3.5 Hours | 3.5 Hours | 3 Hours |
| 70 °F (21 °C) | Tack | 1.6 Hours | 1.3 Hours | 1 Hour |
| | Open | 3 Hours | 3 Hours | 2.5 Hours |
| 80 °F (27 °C) | Tack | 1.3 Hours | 1 Hour | 0.6 Hour |
| | Open | 3 Hours | 2.5 Hours | 2 Hours |

NOTE: This chart is for reference only, actual jobsite times may vary.

PLEASE NOTE: Concrete substrate should **NOT** be smooth and reflective; it must have a concrete surface profile of CSP 1-3 (similar to a broomed finish), as defined by ICRI (International Concrete Repair Institute, Guideline No. 03732). It is advisable to test for adequate substrate absorption and texture in several areas throughout the jobsite by sprinkling droplets of water onto the slab. The drops of water should show signs of penetrating the substrate within one minute. This is evidenced by a water stain on the concrete without a "domed" droplet. If no signs of water penetration are shown within one minute and "domed" droplets remain (similar to drops on a car hood) the substrate will need to be mechanically textured.

INSTALLATION

Apply MVP4® using the notched side of a 3/16" x 5/32" deep trowel to achieve a flat, uniformly thick 30-mil (minimum) membrane (thickness between 1 to 2 credit cards). MVP4® is designed to level and heal with little need for flat-troweling to achieve a continuous uniform membrane.

Allow MVP4® to cure, 12-16 hours prior to installation of flooring. Once cured, any pinholes or bubbles in MVP4® may be filled with a Bostik urethane adhesive prior to flooring installation. Humidity affects cure to a greater degree than temperature; the higher the humidity, the faster the cure. Keep off membrane until material cures; usually 12-16 hours. To help protect the cured membrane from scuffing, tears, scratches, dust, dirt, or other jobsite contamination, install hardwood flooring as soon as possible.

CLEAN UP

Immediately clean all tools and equipment with Bostik's Ultimate™ Adhesive Remover or mineral spirits before material cures.

Caution: Once cured this material can only be mechanically removed; which may damage some surfaces.

Trowel Clean-Up Tip: Before use, cover areas of the trowel that are not used to spread the adhesive with duct tape or blue tape. After use, simply tear off tape before material cures, and clean the remainder of the trowel with a towel.

STORAGE/SHELF LIFE

Store at temperatures between 50°F (10°C) and 100°F (38°C). Shelf life is one year from date of manufacturing in closed, original packaging.

Re-Seal Partially Used Container: With pail upright, place a sheet of plastic (e.g., trash bag) over the top of the pail. Secure lid tightly over the plastic on top of pail. Carefully turn pail upside down. Plastic will help prevent the material from bonding the lid closed.

Re-Open Partially Used Container: Carefully turn pail right side up. Remove lid. Carefully cut and discard cured material and plastic from top of pail. Any uncured material may be used.

SUGGESTED NOTCHED TROWEL SIZE FOR MAXIMUM PERFORMANCE

Coverage: 40-45 sq. ft



Trowel size is suggested to maximize coverage of membrane. Periodically check coverage during installation: 100% coverage is required. Uneven subflooring may require the use of either a leveling/patching material or a larger V-notched trowel for proper coverage.

LIMITATIONS

- Installation/job site must be within wood flooring manufacturer's recommended atmospheric relative humidity and temperature range.
- Visually inspect coverage of membrane after cure; 100% substrate coverage is required to protect against damages from subfloor moisture.
- On or below-grade substrates must have appropriate vapor barrier (6 mil poly or better) properly installed below slab.
- Slab temperature should be between 50°F (10°C) and 95°F (35°C) during installation.
- Do not use on wet, dusty, contaminated, glassy smooth or friable substrates; do not use over substrates/slabs treated with sealers or curing compounds; do not use in areas subject to hydrostatic head.
- Completely remove all adhesive residue and other surface contaminants from the slab by diamond grinding, shot blasting, or scarifying.
- Do not use over gypsum substrate.
- Do not use over perimeter bonded flooring material.
- Please refer to flooring manufacturer's recommendations and NFWA's specifications for proper acclimation, verification of moisture content of flooring with a moisture meter, and expansion relief around perimeter throughout installation
- This membrane does **NOT** reduce/affect issues originating from the sides, ends, or top of flooring (i.e. puddles, water, leaks, wet mopping, hydrostatic-head, etc.).
- This membrane does **NOT** eliminate all possible moisture related or install related issues (i.e. improper acclimation of flooring, jobsite temperature/relative humidity, etc.).
- This membrane is designed to prevent excessive variance of moisture between the top, middle, and bottom of flooring that originates from the substrate.

PACKAGING

Available in 5 gallon metal pails (36 pails/pallet).

CHEMICAL & PHYSICAL PROPERTIES

| | | |
|---|---|--------------------------------|
| Use Environments | Residential | Yes |
| | Offices/Light Commercial | Yes |
| | Heavy Commercial | Yes |
| | Offices | Yes |
| | Hospital | Yes |
| | Exterior | No |
| | Wet Areas | No |
| Substrates | Concrete | Yes |
| | Cement Patch/Underlayment | Yes |
| Flooring Types | Solid Hardwood | Yes |
| | Engineered Hardwood | Yes |
| | Bamboo | Yes |
| | Cork | Yes |
| | Parquet | Yes |
| | Plywood | Yes |
| | Ceramic Tile, Marble, Stone Inlays ² | No |
| Cured Physical Properties | Cure Time ³ prior to flooring installation | 12 to 16 hours |
| | Water Vapor Permeability ⁴ | <0.4 |
| | ASTM E 492-04 IIC (6" slab w/no ceiling) when used as a system with Bostik's Best. | 49 dB |
| | ASTM E 492-04 IIC (6" concrete slab layer 5/8" gypsum board ceiling) when used as a system with Bostik's Best [®] . | 62 dB |
| | Concrete Moisture Vapor Limits for subfloor moisture vapor protection: | |
| | ASTM 1869 Calcium Chloride Method | None, Dry to the touch |
| | ASTM 2179 Relative Humidity Test | None, Dry to the touch |
| | Elongation | 180% |
| | Service Temperature | -40°F to 150°F (-40°C to 66°C) |
| | Uncured Physical Properties | Ease of Troweling |
| Odor | | Mild |
| Open/Working Time ⁵ | | 180 min |
| Color | | Grey |
| Density (lbs/gallon) | | 12.2 |
| Percentage of Water ⁶ | | 0% |
| Percentage of Membrane Coverage Required: | | 100% |
| Chemical Properties | Application Temperature | 50°F to 100°F (10°C to 38°C) |
| | Chemistry Type | 1-Part Urethane |
| | VOC Compliant (calculated per SCAQMD Rule 1168) | Yes (< 73 g/L) |
| | Flash Point, closed cup | > 153°F (67°C) |

¹ Residential or light commercial only

² Humidity affects cure to a greater degree than temperature; the higher the humidity, the faster the cure. Under normal conditions, light foot traffic is acceptable after 6 to 8 hours; normal traffic after 24 hours.

³ Per ASTM E-96 Standard Test Methods for Water Vapor Transmission of materials. Ratings are g/m²-24 hour-mmHG.

⁴ Please refer to the Open/Working Time Chart.

⁵ Per ASTM E203-01 Standard Test Method for water using Volumetric Karl Fischer Titration Method. Results rounded to the nearest tenth. Test Method has error range of +/- 0.2%.

CAUTION

IRRITANT. MAY IRRITATE EYES, SKIN OR RESPIRATORY TRACT. CONTENTS MAY BE HARMFUL IF SWALLOWED OR INHALED. Methanol may form during curing. Do not breathe fumes. Do not get in eyes, on skin or on clothing. Do not swallow. Handle with care. Use only in a well ventilated area or wear a mask. Wear protective clothing including gloves. Wash thoroughly after handling. Keep container closed. Store in a cool, dry area. Do not reuse container.

KEEP OUT OF REACH OF CHILDREN

FIRST AID TREATMENT

Contains Quartz Silica inextricably bound in a polymer matrix. If in eyes or on skin, rinse with water for at least 15 minutes. If on clothes, remove clothing. If breathed in, move person to fresh air. If swallowed, call a Poison Control Center or doctor immediately. Do not induce vomiting.

SEE SAFETY DATA SHEET

CHEMICAL EMERGENCY: 800-424-9300 (USA),
703-527-3887 (International)

MEDICAL EMERGENCY: 866-767-5089

LIMITED WARRANTY

Limited Warranty found at www.bostik.com/us or call 800.726.7845. TO THE MAXIMUM EXTENT ALLOWED BY LAW, BOSTIK DISCLAIMS ALL OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. UNLESS OTHERWISE STATED IN THE LIMITED WARRANTY, THE SOLE REMEDY FOR BREACH OF WARRANTY IS REPLACEMENT OF THE PRODUCT OR REFUND OF THE BUYER'S PURCHASE PRICE. BOSTIK DISCLAIMS ANY LIABILITY FOR DIRECT, INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES TO THE MAXIMUM EXTENT ALLOWED BY LAW. DISCLAIMERS OF IMPLIED WARRANTIES MAY NOT BE APPLICABLE TO CERTAIN CLASSES OF BUYERS AND SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU. It is the buyer's obligation to test the suitability of the product for an intended use prior to using it. The Limited Warranty extends only to the original purchaser and is not transferable or assignable. Any claim for a defective product must be filed within 30 days of discovery of a problem, and must be submitted with written proof of purchase.

BOSTIK HOTLINE

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