BUILDING TRUST

PRODUCT DATA SHEET

Sika® MB

SOLVENT-FREE EPOXY MOISTURE BARRIER

PRODUCT DESCRIPTION

Sika® MB is a two-component, solvent-free, low viscosity epoxy for use under floor covering products, self-leveling underlayments, floating floors and other flooring systems that require protection from subfloor moisture.

USES

- Moisture barrier to help control moisture propagation in cementitious substrates with a moisture content not exceeding 6% (by Tramex meter), residual moisture up to 100% RH (using ASTM F2170) or 25 lbs. per 1,000 sq.ft. (11.34 kg per 92.90 m^2) per 24 hours (using an anhydrous calcium chloride test ASTM F1869)
- For substrate consolidation on concrete, cement and gypsum screeds
- Adhesion promoter for old and new adhesive residues in conjunction with other Sika® products
- Suitable on concrete, cement, self-leveling and gypsum substrates, plywood, OSB, quarry and terrazzo tiles, water-soluble adhesive and cutbacks

CHARACTERISTICS / ADVANTAGES

- ~100% solid content
- Class I vapor retarder at 0.06 Perm (1 coat)
- Suitable for use on floors with radiant heating
- Can be used below floating floors
- Convenient, easy to mix packaging
- Easy roller applied application
- Excellent penetration and stabilization of the substrate
- Compatible with SikaBond® flooring adhesives, SikaLevel® products
- Reduction of adhesive consumption

ENVIRONMENTAL INFORMATION

LEED v4.1 & LEED v5 California Department of Public Health (CDPH) Standard Method v1.2

APPROVALS / STANDARDS

Meets ASTM F3010

PRODUCT INFORMATION

Chemical Base	Epoxy resin
Packaging	2.64 gal. (10 L) pail
Color	Blue
Shelf Life	24 months from the date of production if stored properly
Storage Conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions and protected from direct sunlight at temperatures between 50°F and 77°F (10°C and 25°C). Condition material between 65°F and 75°F (18°C and 24°C) before using.

Density	~9.18 lbs/gal (~1.10 kg/L) at 68°F (20°C) (mixed resin)

TECHNICAL INFORMATION

Shore D Hardness	~83 (7 days)	(ASTM D2240)
Compressive Strength	~10,000 psi (~68.95 MPa)	(7 days at 73°F (23°C) and 50% RH)
Permeability to Water Vapor	~0.06 Perm (~0.06 g/m²-24h-mmHg)	(ASTM E96)
Service Temperature	-40°F to 158°F (-40°C to 70°C)	

APPLICATION INFORMATION

Coverage

Application	Coverage per pail
Moisture barrier	250–300 sq.ft. (23.23–27.87 m²)
Adhesion promoter or surface consolidator	400–450 sq.ft. (37.16–41.81 m²)

These are estimated coverages and additional material may be required based on substrate porosity/profile, material wastage or any other variations. Apply material to a test area to calculate the exact coverage for the specific substrate conditions.

Ambient Air Temperature

50°F to 86°F (10°C to 30°C)

Relative Air Humidity

85% RH max. (during application and curing)

Dew Point

Beware of condensation!
The substrate must be at least 5°F (3°C) above measured dew point to reduce the risk of condensation on the surface of the applied product.

Substrate Temperature

During laying and until Sika® MB has fully cured, the substrate temperature must be between 50°F and 86°F (10°C and 30°C).

Pot Life

Temperature	Time
50°F (10°C)	~60 minutes
68°F (20°C)	~30 minutes
86°F (30°C)	~15 minutes

Cure Time

Prior to walking on primer/or for applying SikaBond® or SikaLevel® allow:

Temperature	Time
50°F (10°C)	~18 hours
73°F (23°C)	~8 hours
86°F (30°C)	~6 hours

SYSTEM INFORMATION

System Structure

Application	No. of coat	Results in
Moisture barrier only	min. 1	Mirror like finish
Substrate consolidation only	min. 1	Good penetration
Adhesion promotion only	min. 1	Mirror like finish
Moisture barrier + substrate consolidation	min. 2	Mirror like finish
Moisture barrier + adhesion promotion	min. 2	Mirror like finish

Note: MUST produce a monolithic, pinhole-free finish with a continuous film. The need for multiple coats is directly related to surface absorption.

Treat Sika® MB as a non-porous substrate. For wet and semi-wet adhesive installations, SikaLevel®-02 EZ Primer must be used and the surface smoothened with a suitable leveling compound prior to the use of pressure-sensitive resilient flooring adhesives.

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

LIMITATIONS

- Sika® MB is suitable for interior use only.
- Avoid extreme variations of environmental conditions (temperature or humidity).
- Only protects from moisture coming from below the concrete.
- Do NOT use where hydrostatic pressure conditions exist or where moisture vapor emission rate (MVER) exceed the recommended levels.
- Must NOT be applied to a visibly wet substrate.
- Will NOT act as a moisture barrier for gypsum-based substrates. Gypsum based subfloors are very susceptible to excess moisture and will be degraded if exposed to excess moisture from below or above.
- Sika does NOT make any standing recommendations as to the structural integrity of old adhesive residues or subflooring materials that are not manufactured by Sika.
- NOT suitable for use on adhesive and cutbacks which suffer from migration/bleeding. A test application is strictly recommended prior to use on any adhesive and cutbacks.
- Does NOT prevent moisture occurring between Sika® MB and the floating floor due to secondary sources of moisture or acclimation, e.g. water condensation.
- Is NOT suitable for use with bonded systems due to possible curing and adhesion problems.
- Proper coverage must be used to achieve moisture barrier properties.
- Covering products must be applied within the open window of Sika® MB or the surface must be re-prepared. See application section for more detail.
- A cementitious layer (SikaLevel® products) may be needed prior to the use of pressure-sensitive adhesives to ensure a smooth finish, preventing telegraphing through the surface of specific flooring types.
- Treat Sika® MB as a non-porous substrate and if applying pressure-sensitive adhesives directly over Sika® MB, allow adequate time for adhesives to “flash-off” prior to the installation of the floor covering. Failure to allow these adhesives to reach their intended high-tack state will result in the adhesives not drying and remaining wet/uncured.
- Floor covering manufacturer’s recommendations, like room temperature, humidity levels and acclimation requirements must be strictly followed.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

The substrate must be sound and of sufficient compressive strength (minimum 1,160 psi (8 MPa)) with a minimum pull-off strength of 116 psi (0.80 MPa). Substrate must be clean, dry, stable, homogeneous and even, free of all contaminants such as oil, grease, dust and loose or friable particles. Paint, wax, curing and sealing compounds, laitance and other poorly adhering contents that will interfere with the adhesion of Sika® MB must be mechanically removed.
Note: Before overall installation begins, Sika recommends the application of several small test patches to determine primer application requirements and acceptability of final product performance.

SUBSTRATE PREPARATION

- All substrate must have an open-textured surface to allow Sika® MB to penetrate the surface (i.e. blast cleaning, grinding are considered acceptable means to achieve the desired surface profile. Acid and chemical etching are NOT acceptable).
- Concrete substrate must have a concrete surface profile of CSP 2–4.
- At least 50% of the surface area must be cleared of residual adhesive and cutbacks (i.e. by grinding or mechanical substrate preparation).
- Old cutback can contain asbestos which is dangerous for the health so do not grind, sand or blast. Refer to the Resilient Floor Covering Institute’s publication “recommended work practice for removal of resilient floor coverings” for instruction.
- Weak surfaces must be removed. Repair with SikaLevel® SkimCoat before priming.
- On fiber reinforced concrete, fibers should be flamed off the surface prior to application of Sika® MB as a moisture barrier.
- All moving joints and moving cracks must be honored up through the floor preparation and floor covering installation, finishing with an appropriate Sika flexible sealing compound. Dormant hairline cracks can be

covered with Sika® MB. Dormant joints and dormant cracks greater than a hairline that will not be honored must be pre-filled in strict accordance with the installation instructions provided by the Sika Technical Service Department.
- Due to differences in asphalt-based adhesive types and performance capabilities, installer must verify that preparation of the surface is sufficient prior to using Sika® MB. For unknown substrates, please contact Sika's Technical Services for best practices at 1-800-933-SIKA.
- All dust, loose and friable material must be completely removed and cleaned with an industrial vacuum from all surfaces before application of the product.

MIXING

- Add one full can of Part B to one full can of Part A then mix with an electric drill and mixing paddle (Jiffy Mixer type) at a low speed to reduce air entrainment (300–400 rpm). Using a paint stick or similar is NOT sufficient to mix the primer.
- A minimum mixing time of 3 minutes shall be observed; mixing must continue until a homogeneous mix has been achieved.
- Scrape sides of pail with paint stick or paddle to ensure all contents are thoroughly mixed together.
- Unmixed material applied to the floor will not cure properly.

APPLICATION METHOD / TOOLS

- Apply Sika® MB uniformly (crosswise) to the substrate using a 3/8" (9.53 mm) nap roller, ensuring that a monolithic coat is achieved over the entire surface.
- SikaLevel®-02 EZ Primer or SikaBond® flooring adhesives can be installed directly to Sika® MB after a cure time of at least what is stated above and within 36 hours. If SikaLevel®-02 EZ Primer or SikaBond® adhesives are not applied within the first 36 hours after application of Sika® MB, the surface must be thoroughly cleaned and mechanically prepared (i.e. screened sand) and solvent wiped without affecting the moisture mitigation properties. Failure to do this, may result in adhesion problems. For detailed instruction contact our Technical Service.

CLEANING OF TOOLS

Clean all tools and application equipment with cleaning solvent (Xylene, MEK or other similar solvent) immediately after use. Hardened/cured material can only be removed mechanically.

OTHER RESTRICTIONS

See Legal Disclaimer.

LEGAL DISCLAIMER

- **KEEP CONTAINER TIGHTLY CLOSED**
- **KEEP OUT OF REACH OF CHILDREN**
- **NOT FOR INTERNAL CONSUMPTION**
- **FOR INDUSTRIAL USE ONLY**
- **FOR PROFESSIONAL USE ONLY**

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

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