BUILDING TRUST

PRODUCT DATA SHEET

SikaTile®-100 Moisture Guard

FAST DRYING ELASTOMERIC WATERPROOFING AND CRACK ISOLATION MEMBRANE

PRODUCT DESCRIPTION

SikaTile®-100 Moisture Guard is a single component, fast-drying, thin mil, load-bearing waterproofing, and crack isolation membrane for installation under ceramic tile or stone in residential, commercial, and industrial environments. With excellent elongation, adhesion, and high strength properties, SikaTile®-100 Moisture Guard provides a thin, continuous barrier to protect adjacent rooms and floors below from water damage. For common change of plane areas such as coves, corners, cracks, and drains, it can be combined with optional Reinforcing Fabric to provide additional protection. SikaTile®-100 Moisture Guard dries in 2 to 4 hours depending on ambient conditions and is then ready to receive any Sika® polymer or epoxy mortar. SikaTile®-100 Moisture Guard is IAPMO-listed for use as a shower-pan liner, can be flood-tested after 4 to 6 hours of drying time, and exceeds ANSI A118.10 and ANSI A118.12 standards.

USES

SikaTile®-100 Moisture Guard may be installed over any sound substrate normally acceptable to receive ceramic, quarry, porcelain, and stone tiles as a fast drying, 100% waterproof membrane for shower pans and other load bearing waterproofing applications. When installed in accordance with manufacturer's specifications, SikaTile®-100 Moisture Guard will inhibit transferring of shrinkage and non-structural cracks caused by horizontal movement, when tile and stone finishes are used. Covers and protects most any architectural design forms or irregular shapes and is ideal for interior and exterior floor and wall use in both residential and commercial applications.

RECOMMENDED SUBSTRATES

SikaTile®-100 Moisture Guard can be installed in most interior and exterior residential and commercial installations on floors over the following recommended substrates:

- Brick masonry
- Cement backer board[1]
- Cement mortar beds and wall floats (cured)
- Cement wall float
- Cement terrazzo
- Ceramic tile and stone
- Concrete, CMU
- Exterior grade plywood[2]
- Gypsum drywall[2]
- Gypsum mortar bed
- Gypsum oriented strand board[2]
- SikaLevel® products
- Stucco base coats[3]

[1] Consult cement backer board manufacturer for installation recommendations and to verify acceptability for exterior use.
[2] Interior use only.
[3] Consult stucco manufacturer if suitable for tile or stone installations.

CHARACTERISTICS / ADVANTAGES

- For use in areas that require positive waterproofing
- Crack Isolation up to 1/8"
- Fast drying, foot traffic in 2 – 4 hours
- Flood test after 4 – 6 hour cure
- Excellent elongation will inhibit the transfer of cracks
- Antimicrobial for mold and mildew resistance at the

substrate
- Easy installation with brush, roller, or trowel
- Excellent adhesion – bonds to most flooring surfaces
- Does not increase surface elevation
- Interior or exterior
- Low VOC's
- Can be exposed to UV light for up to 30 days

ENVIRONMENTAL INFORMATION

Sika® is committed to environmental responsibility in both products produced and in manufacturing practices. Use of this product can contribute towards LEED® v4.5 certification:
- Up to 2 points towards MR Credit 5, Regional Materials

APPROVALS / STANDARDS

American National Standards Institute (ANSI) — ANSI A108.01, A108.17, A118.10, and A118.12 of the American National Standards for the Installation of Ceramic Tile ASTM International (ASTM)
- Resilient Floor Covering Institute - (RFCI) Recommended Work Practices for Removal of Resilient Floor Coverings
- ASTM D638 Standard Test Method for Tensile Properties of Plastics.
- ANSI: Meets A118.10 standard (Waterproofing Membranes for Thin-Set Ceramic Tile)
- ANSI: Meets A118.12 standard (Crack-Isolation Membranes for Thin-Set Ceramic Tile)
- IAPMO: Listed for use as shower-pan liner; IAPMO File #K12899
- ICC Evaluation Report ESR-2619 -PMG
- City of Los Angeles, Department of Building and Safety, Research Report #RR-4321
- Tile Council of North America (TCNA) - TCNA Handbook for Ceramic Tile Installation, TCNA F125, F125A and EJ171 Movement Joint Guidelines.

PRODUCT INFORMATION

Chemical Base	Emulsion polymer with additives
Packaging	1 gallon and 3.5 gallon pail
Color	Yellow (dries to a darker yellow)
Shelf Life	24 months from date of production when stored in original, sealed package
Storage Conditions	Store in undamaged, original, sealed package, in dry conditions

TECHNICAL INFORMATION

Dry film thickness	≥ 30-35 mils at 2 coats	
Tensile Strength	> 350 psi (2.41 MPa)	(ASTM D412)
Crack Bridging Ability	Up to 1/8"	

APPLICATION INFORMATION

Coverage	50 sq. ft. per gallon at 30 mils thick
Cure Time	SikaTile®-100 Moisture Guard is ready to receive tile mortars for tile or stone when dry to touch. Typically, drying time is 2 to 4 hours; depending on ambient conditions. Extreme cold and humid conditions will extend drying time up to as much as 12 hours. After the second coat is applied and both coats are fully cured, the application area can be flood tested.
Drying Time	2 - 4 hours* *When cured at 70°F (21°C) and 50% RH. Ambient conditions may speed or slow drying times.

SYSTEM INFORMATION

System Structure

Property	Test method	Requirement	Typical results
Adhesion	-	-	250 psi
Elongation	ASTM D412	-	300-400%
Seam strength	ANSI A18.10 Section 4.2	> 8 lbs./" width	Pass
Breaking strength	ANSI A18.10 Section 4.3	> 170 psi	Pass
Dimensional stability	ANSI A18.10 Section 4.4	+/- 0.7%	Pass

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

- Protect from traffic, dirt, or dust from other trades until the final installation of the floor covering.
- Do not use below 40°F (4°C); do not allow membrane or substrate to be below 40°F (4°C) for the first 72 hours after application.
- Do not use membrane as an adhesive or wear surface, membrane must be covered with ceramic or stone tile.
- Do not install over substrates containing asbestos.
- Do not apply over self-stick tile, particleboard, or similar types of dimensionally unstable substrates.
- Do not use over cracks or control joints subject to out-of-plane movement or in-plane movement greater than 3/8" (10 mm).
- Not recommended for use on concrete floors when hydrostatic pressure or substrate moisture exceeds 5 lbs. per 1,000 sq. ft. in 24 hours.
- Do not use as primary roofing membrane.
- Protect from freezing.
- If SikaTile®-100 Moisture Guard will be exposed to UV light for more than 30 days, protective measures must be taken, this may include applying a skim coat using a SikaTile® premium polymer-modified thinset.

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.

DIRECTIVE 2004/42/CE - LIMITATION OF EMISSIONS OF VOC

~2 g/L

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

All surfaces must be between 40°F (4°C) to 90°F (32°C) and structurally sound (deflection not to exceed 1⁄360 of the span), dry, clean, and free from oil, grease, wax, paint, old adhesives, sealers, and curing compounds. Any contaminates which inhibit proper bond must be removed. Substrate preparation should be completed following ANSI A108 AN-2 “General Requirements for Sub-surfaces”. All substrates should be plumb and true, surface deviation should not exceed 1⁄4" in 10’. Patching, leveling or areas requiring a mortar bed should be prepared using SikaLevel® underlayments. Movement (expansion) joints should be provided to comply with TCNA method EJ171. Concrete must be free of any negative hydrostatic pressure and/or excessive moisture.

PRIMING

SikaTile®-100 Moisture Guard is designed to perform without the need for a primer. However, if a primer is recommended due to substrate conditions, use one of the following: SikaTile®-101 Overspray, SikaLevel®-01 Primer Plus or SikaTile®-100 Moisture Guard (diluted 1:1 with clean water). Always refer to the substrate requirements and manufacturer’s guidelines for best results.

SUBSTRATES

Concrete substrates: All concrete substrates should be cured a minimum of 28 days. Smooth steel troweled floors should be roughed up using mechanical chipping, scraping, or shot blasting. Dampen porous or dry concrete prior to installation of tile. Do not leave puddles or standing water. Rough or uneven surfaces should be made smooth with a latex portland cement underlayment to provide a wood float or better finish. Do not level with asphalt based products. Concrete should be tested for both moisture vapor transmission

and hydrostatic pressure, by use of a Calcium-Chloride (CaCl) test. Consult technical support if test readings indicate a reading greater than 5 lbs. per 1,000 sq. ft. in 24 hours. Existing joint openings larger than 3/16" must be prepared and filled with an approved caulking or sealant prior to the application of primer and elastomeric membrane.

Patching, self-leveling compounds, lightweight gypsum concrete: Should be cured to the minimum manufacture's requirement for moisture sensitive installations.

Plywood and OSB substrates: Must be a minimum of two (2) layers 5/8" exterior grade plywood (EGP). Plywood shall be securely fastened in accordance with industry standards. Maintain a 1/8" gap between plywood sheets and all surfaces they abut. Joints in the top layer should be offset from the joints on the bottom layer. Maximum joist spacing should be 16" on center and the deflection of the floor structure and sub-floor must not exceed L/360 of the span under combined live or dead loads.

Other substrates: All other substrates and or sub-flooring systems shall be installed in a manner approved by both the product manufacturer and using appropriate installation method.

APPLICATION

As a Waterproofing Membrane:

Read all installation instructions before installation. Begin by applying a liberal coat of SikaTile®-100 Moisture Guard liquid around joints, cracks, and protrusions. Embed reinforcing fabric (optional) into the wet SikaTile®-100 Moisture Guard, cover with a second coat, "sandwiching" the reinforcing fabric. Apply an additional application to prevent pinholes.

Drains: Must be of the clamping ring-type with weep holes for setting material application. Drain should be even, level, plumb and fully supported, without movement. Fill all voids with a SikaTile® polymer modified tile adhesive to within a minimum of 1/8" from the drain. Apply a liberal coat of SikaTile®-100 Moisture Guard liquid around and over the bottom drain clamping ring. Embed 8" reinforcing fabric into the wet SikaTile®-100 Moisture Guard, cover with a second coat, "sandwiching" the reinforcing fabric. Apply an additional application to prevent pinholes. After drying, set the upper clamping ring onto the dried membrane with a continuous bead of Sikasil® N Plus silicone caulking or similar material. A toilet flange can be treated in the same manner.

Substrates & wall transitions: Allow any recently prepared areas to dry. Apply a liberal coat of SikaTile®-100 Moisture Guard membrane at a rate of 50 sq. ft. per gallon. Periodically, check the film thickness with a wet film thickness gauge. The first wet coat should be applied at 30 mils wet thickness. Apply reinforcing fabric to the corners into the wet SikaTile®-100 Moisture Guard, once the membrane dries to touch cover with a second coat at 30 mils wet thickness, "sandwiching" the reinforcing fabric. Total membrane thickness after drying should be 40 mils.

As a Crack Isolation Membrane:

Read all installation instructions before installation. Ready to use product, do not dilute and stir by hand prior to use. Fill all cracks with SikaTile®-100 Moisture Guard using a flat trowel. Apply SikaTile®-100 Moisture Guard to the surface with a trowel, brush, or roller. Normal coverage is approximately 80 sq. ft. per gallon at 30-35 mils thick. After SikaTile®-100 Moisture Guard has dried (~1 hour depending on surface porosity and ambient conditions; cool and wet weather may delay drying time), tile or stone may be installed directly over the membrane using a polymer modified tile setting adhesive.

Finish Surface Installation:

Apply finish flooring in compliance with methods of installation over crack-isolation membranes. Do not install any defective, damaged, or any finish flooring surface not for its intended use. The installation of this product does not eliminate the need for movement joints, including perimeter joints with a tiled surface. Provide for expansion and control joints as specified per TCNA Method EJ171. Do not cover expansion joints with mortar.

Reinforcement:

SikaTile®-100 Moisture Guard is formulated to perform as a waterproof and crack isolation membrane without requiring the need of reinforcing fabric. As a waterproofing membrane, the use of an 8" reinforcing fabric to ensure proper coverage and maximum protection at joints, cracks, protrusions, dissimilar materials, and drains is recommended. As a crack isolation membrane, reinforcing fabric is not recommended.

SikaTile® elastomeric membranes, when properly installed in accordance with the following installation

guidelines, will provide years of protection for finish flooring installations. In addition to these instructions, installers shall also reference the most current edition of American National Standards Institute (ANSI), Tile Council of North America (TCNA) Handbook for Ceramic Tile Installations, The Marble Institute of America (MIA) Dimension Stone Design Manual, NWFA (National Wood Flooring Association) and Manufacturer's instructions of selected setting materials, substrates, sub-floors, or other manufacturers being used in total, or any part of, an installed flooring system with SikaTile®. Consult your selected manufacturer of these above mentioned components to ensure selected products are compatible with SikaTile® elastomeric membranes.

CLEANING OF TOOLS

Clean tools and tile with water before the material dries.

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.**

Sale of SIKA products are subject to the Terms and Conditions of Sale which are available at https://usa.sika.com/en/about-us/terms-conditions-of-sale.html or by calling 1-800-933-7452.

Sika Corporation
201 Polito Avenue
Lyndhurst, NJ 07071
Phone: +1-800-933-7452
Fax: +1-201-933-6225
usa.sika.com