**BUILDING TRUST** 

#### PRODUCT DATA SHEET

# SikaTile®-150 Moisture Guard Fabric Membrane

## FLEXIBLE, SHEET-APPLIED WATERPROOFING MEMBRANE FOR CERAMIC TILE AND STONE







#### PRODUCT DESCRIPTION

SikaTile®-150 Moisture Guard Fabric Membrane is a thin, flexible, durable, 3-ply, polyethylene sheet membrane with non-woven, polypropylene fabric on both sides to embed the membrane into the tile adhesive for maximum adhesion. It is used for waterproofing and vapor control in interior and exterior residential and commercial applications. SikaTile®-150 Moisture Guard Fabric Membrane is ideal for vapor protection in showers, steam rooms and other wet areas due to its low perm-rating performance.

#### **USES**

- Showers, tub surrounds, steam rooms, steam showers, bathrooms, kitchens and other wet areas that require positive waterproofing
- Interior and exterior, floors, walls and backsplashes for both commercial and residential applications
- SikaTile®-150 Moisture Guard Fabric seam tape, inside/outside corners, pipe seals, mixing valve seals, drain hats and Sikaflex®-11FC to finish the waterproofing assembly.

#### **SUITABLE SUBSTRATES**

SikaTile®-150 Moisture Guard Fabric Membrane can be installed in most interior and exterior residential and commercial installations on floors and walls over the following recommended substrates:

Brick Masonry • Cement Backer Units¹ • Cement Mortar Beds (cured) • Cement Terrazzo • Ceramic Tile and Stone • Concrete

• Exterior Grade Plywood<sup>2</sup> • Gypsum Drywall<sup>2</sup> • Gypsum Mortar Bed • Oriented Strand Board<sup>2</sup> • SikaLevel® Products

<sup>1</sup>Consult cement backer board manufacturer for installation recommendations and to verify acceptability for use.
<sup>2</sup>Interior Use Only.

#### **CHARACTERISTICS / ADVANTAGES**

- Waterproofing and vapor-control membrane
- Low perm rated per ASTM E96 Method E ideal for steam rooms and steam showers
- Lightweight, polyethylene sheet membrane with nonwoven, polypropylene fabric on both sides
- For interior and exterior residential and commercial use
- Can be installed over cement backerboard units, lightweight tile wallboard, and primed gypsum wallboard
- Consistent thickness with minimal surface elevation
- IAPMO listed
- ICC approved
- Easy to handle and cut, providing rapid installation
- Easily conforms to substrate
- Allows for immediate tile installation using SikaTile® polymer-modified mortars

#### **ENVIRONMENTAL INFORMATION**

#### **Environmental Consideration**

Sika® is committed to environmental responsibility in both products produced and in manufacturing practices. Complete the LEED Product Data Request Form at SikaTile.com for detailed information based on project

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SikaTile\*-150 Moisture Guard Fabric Membrane March 2025, Version 01.01 021790206100000025 location. Use of this product can contribute toward LEED® v4.1 certification:

Up to 2 points toward MR Credit 5, Regional Materials

#### **APPROVALS / STANDARDS**

American National Standards Institute (ANSI) — ANSI A108.01, A108.17, and A118.10 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
- ANSI: Meets A118.10 standard (Waterproofing Membranes for Thin-Set Ceramic Tile)
- ASTM: E96, Method E, meeting requirements of < 0.5 perms (ideal for steam rooms/showers)
- ICC-ES Certification: Evaluation Report ESR-1759 -PMG
- IAPMO: Listed for use as shower-pan liners
- Tile Council of North America (TCNA) TCNA Handbook for Ceramic Tile Installation, TCNA F125, F125A and EJ171 Movement Joint Guidelines.

#### PRODUCT INFORMATION

Chemical Base	Two outer layers of polypropylene, non-woven membrane bonded with one inner layer of polyethylene waterproofing membrane.	
Packaging	39.4" x 16.4' (1 m x 5 m) roll (54 sq. ft. / 5m²) 39.4" x 98.4' (1 m x 30 m) roll (323 sq. ft. / 30 m²)	
Color	Yellow	
Shelf Life	24 months from date of production when stored in original, unopened package	
Storage Conditions	Store in undamaged, original, unopened package, in dry conditions	
Width	1,000 mm	
Thickness	0.5 mm	
Weight	298 g/m²	

#### **TECHNICAL INFORMATION**

#### **APPLICATION INFORMATION**

#### SYSTEM INFORMATION



Property	Test Method	Results
Seam Strength	ANSI A118.10 Section 4.2	40 lbf
Breaking Strength:  Longitudinal Transverse	ANSI A118.10 Section 4.3	949 PSI 1,765 PSI
Dimensional Stability: Longitudinal (158°F) Longitudinal (-15°F) Transverse (158°F) Transverse (-15°F)	ANSI A118.10 Section 4.4	-0.23% -0.03% -0.13% -0.01%
Waterproofness	ANSI A118.10 Section 4.5	Pass
Shear Strength to Ceramic Tile and Cement Mortar: 7 Day shear strength 7 Day water immersion shear strength 4 Week shear strength 12 Week shear strength 100 Day water immersion shear strength	ANSI A118.10 Section 5.3 ANSI A118.10 Section 5.4 ANSI A118.10 Section 5.5 ANSI A118.10 Section 5.6 ANSI A118.10 Section 5.7	139 psi 126 psi 109 psi 92 psi 131 psi
Water Vapor Transmission	ASTM E96 Method E	0.05 Perms
Water Vapor Transmission	ASTM E96 Method A	0.03 Perms
Resistance to Temperature (Min/Max)		-23°F / +194°F -5°C / +90°C

#### **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.

#### **USES**

- Do not use as a final wear surface.
- 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 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 outof-plane movement or in-plane movement greater than 3/8" (10 mm).
- Must be incorporated into the waterproof membrane during application.
- Avoid exposure to sharp objects that could cut or puncture the material.
- Not for use over occupied space in exterior applications.
- Do not use as primary roofing membrane.

## ENVIRONMENTAL, HEALTH AND SAFETY APPLICATION INSTRUCTIONS

#### INSTALLATION

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

provide years of protection for finish flooring and wall 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 floor and wall system with SikaTile®. Consult your selected manufacturer of these previously mentioned components to ensure selected products are compatible with SikaTile® membranes.

#### SURFACE PREPARATION

All surfaces must be between 40°F (4°C) to 90°F (32°C) and structurally sound (deflection not to exceed L/360 for ceramic and porcelain tiles and L/720 for natural stone), dry, clean, and free from oil, grease, wax, paint. old adhesives, sealers, and curing compounds. Any contaminants that 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' or 1/8" in 10' for large format tiles. Patching, leveling or areas requiring a mortar bed should be prepared using Sika® 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.

Installations with drains require a minimum slope of 1/4" per foot (6 mm per 0.30 m) toward the drain. For

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waterproofing applications refer to TCNA Handbook, ANSI Standards and local codes for requirements.

#### **SUBSTRATES**

Concrete Substrates: All concrete substrates should be cured a minimum of 28 days. Smooth steel troweled floors should be roughed up using mechanical grinding or shot blasting. Dampen porous or dry concrete before starting the installation. 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. Existing joint openings larger than 3/16" must be prepared and filled with an approved caulking or sealant before application of SikaTile®-150 Moisture Guard Fabric Membrane (refer to EJ-171 details in the TCNA Handbook).

Patching, Self-Leveling Compounds, Lightweight Gypsum Concrete: Should be cured to the minimum manufacturer's requirement for moisture-sensitive installations. Gypsum wall board should be primed and wiped down with damp sponge prior to thin set being applied.

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 for ceramic and porcelain tiles and L/720 for natural stone under combined live or dead loads.

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

**Cracks & Joints:** Treat all cracks and joints by filling substrate cracks, cold joints, and control joints to a smooth finish using Sikaflex 11-FC or approved urethane sealant prior to the application of SikaTile®-150 Moisture Guard Fabric Membrane.

#### **MEMBRANE APPLICATION**

Read all installation instructions thoroughly prior to installation.

- Measure and cut all SikaTile®-150 Moisture Guard Fabric Membrane sections to the proper length before mixing the appropriate SikaTile® mortar. Make sure to allow for upturns and 2" (5 cm) overlaps or use SikaTile®-150 Moisture Guard Fabric ST (Sealing Tape) instead of upturns and edge overlaps.
- Mix a suitable SikaTile® polymer-modified mortar meeting at least ANSI A118.4 or ANSI 118.11 to a consistency using 10% to 20% additional water than

- the recommended water range, to hold a notched ridge while allowing for wetting out of the fabric layer backing of the membrane.
- Key SikaTile® mortar into the substrate with pressure by using the flat side of the trowel.
- Apply additional mortar, combing it in a single direction using a 1/4" x 3/16" (6 x 5 mm) V-notched trowel. Spread only as much mortar as can be covered with SikaTile®-150 Moisture Guard Fabric Membrane before the mortar skins over. Rougher surfaces may require a larger notched trowel. Open times vary by mortar and jobsite conditions.
- Embed SikaTile®-150 Moisture Guard Fabric Membrane into the mortar. Using a rubber or wooden float, plastic taping knife or hand roller, move slowly and apply pressure and ensure proper embedding of the membrane. Work from the middle to the outside edges to ensure that air is not trapped underneath the membrane. Occasionally lift membrane to verify coverage and ensure full contact between the fabric membrane and mortar.
- Bond the seams by overlapping the edges of the SikaTile®-150 Moisture Guard Fabric Membrane by 2" (5 cm) or embed SikaTile®-150 Moisture Guard Fabric ST sealing tape over the abutted edges without leaving gaps with the SikaTile® mortar using a 1/4" x 3/16" (6 x 5 mm) V-notched trowel, key in the mortar to the adjoining seams with the trowel's flat side. Apply mortar on top of the seams with the trowel's notched side. Center the tape over the seam with at least 2" (5 cm) on each side of the seam and apply the tape. Work the sealing tape or 2" (5 cm) overlap into the thin-set mortar with a grout float, plastic taping knife or the trowel's flat side while the thin-set is still workable.
- Use a damp sponge to clean excess mortar from areas on the SikaTile®-150 Moisture Guard Fabric Membrane.
- Fill any gaps or openings with Sikaflex®-11 FC Sealant for a watertight seal.

#### Floor and Wall Connections:

- Use SikaTile®-150 Moisture Guard Fabric ST sealing tape or overlap seams by at least 2" (5 cm) at the corner of where the floor and wall meet.
- For inside and outside corners, adhere SikaTile®-150
   Moisture Guard Fabric IC pre-formed inside corners
   and SikaTile®-150 Moisture Guard Fabric OC preformed outside corners using appropriate SikaTile®
   mortar.
- Install SikaTile®-150 Moisture Guard Fabric PC preformed pipe collars to seal pipes at showerheads, hand-held sprays, etc., and SikaTile®-150 Moisture Guard Fabric MVC pre-formed mixing valve collars using appropriate SikaTile® mortar.
- Fill any gaps or openings with Sikaflex®-11 FC Sealant for a watertight seal.

### DRAIN TREATMENTS Bonding Flange Drain:

 Substrate is to be pre-sloped flush to the top of the bonded flange drain before installing SikaTile®-150

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Moisture Guard Fabric Membrane. Lay fabric over the flange and cut drain opening and bolt hole openings. Remove fabric and apply appropriate SikaTile® mortar on the substrate up to drain flange edge. Apply a continuous bead of Sikaflex®-11 FC Sealant on top of the flange outside of the bolt hole diameter under where the clamping ring will seat. Embed fabric into the mortar and sealant before the products set. Tighten clamping ring immediately and flatten fabric, mortar and sealant. Ensure that fabric follows the slope of the substrate without obstructing the flow of water to the drain.

#### Linear Drain:

Substrate is to be pre-sloped flush to the top of the drain flange before installing SikaTile®-150 Moisture Guard Fabric Membrane. Lay fabric over the flange and cut drain opening. Remove fabric and apply SikaTile® mortar on the substrate up to drain flange edge. Apply a continuous bead of Sikaflex®-11 FC Sealant on top of the flange. Embed fabric into the mortar and sealant before the products set. Flatten fabric over the mortar and sealant, ensuring that fabric follows the slope of the substrate without obstructing the flow of water to the drain.

#### **Clamping Ring Drain:**

- Substrate is to be pre-sloped flush to the top of the drain flange before installing SikaTile®-150 Moisture Guard Fabric Membrane.
- Lay SikaTile®-150 Moisture Guard Fabric Membrane over the top of the drain and cut an X where each bolt will penetrate the membrane. Cut a hole in the membrane to allow the drain grate to be threaded into the clamping ring. (Use of a fabric circle cutter is recommended.)
- Embed SikaTile®-150 Moisture Guard Fabric Membrane, making sure to align the previously cut holes for the bolts and drain throat. Remove fabric and apply appropriate SikaTile® mortar on the substrate up to drain flange edge.
- Apply a continuous bead of Sikaflex®-11 FC Sealant on top of the flange outside of the bolt hole diameter under where the clamping ring will seat.
- Embed fabric into the mortar and sealant before the products set. Tighten clamping ring immediately and flatten fabric, mortar and sealant.
- Check to make sure that weep holes are not plugged by any material. Install final mortar bed slope to the drain, protecting weep holes by using pea gravel or crushed stone. Once mortar bed is dry, tile installation can begin.

#### **Clamping Ring Drain Using Divot Method:**

- With the bottom portion of a standard clamping ring in place and sitting on the substrate, a bonded or nonbonded mortar bed of SikaTile®-910 Floor Mud with a divot around the drain should be installed around the clamping ring body.
- Mortar bed should be sloped at 1/4" per foot (6 mm per 30.5 cm).

- Place a bead of Sikaflex®-11 FC Sealant on the top surface of the body of the clamping ring outside of the clamping ring throat being careful not to block any weep holes.
- Place or SikaTile®-150 Moisture Guard Fabric DH -Deep Drawn Drain Collar over the standard clamping ringbolts and cut a 1/2" (12.5 mm) X through the fabric so the drain collar can slide over the bolts.
- Apply appropriate SikaTile® tile mortar with a 1/4" x 3/16" (6 mm x 5 mm) V-notched trowel over the mortar bed. Press the SikaTile®-150 Moisture Guard Fabric DH Deep Drawn Drain Collar firmly into the SikaTile® mortar. Remove any trapped air to ensure full adhesion to the Drain Collar material by spreading the SikaTile® mortar from the inside of the drain collar outward using a trowel or straightedge with rounded corners.
- Place another bead of Sikaflex®-11 FC Sealant on the underside of the top portion of the clamping ring, being careful not to block any weep holes. Place the top portion of the clamping ring over the Drain Collar and the bolts protruding up from the bottom portion of the clamping ring through the Drain Collar. Secure the clamping ring nuts and tighten as required.
- Cut a hole in the Drain Collar material to allow a drain grate to be threaded into the clamping ring. (Use of a fabric circle cutter is recommended.)
- Screw the drain grate into the clamping ring assembly to the desired height for tiling. Protect weep holes in the clamping ring drain from clogging by filling the recessed area around the drain grate with pea gravel and additional SikaTile® Floor Mud or equivalent.
- To provide a watertight assembly, particularly within the recessed area, cut a waterproofing membrane (e.g., SikaTile®-150 Moisture Guard Fabric Membrane) to cover the flooring from the walls up to the threaded drain grate so that the waterproofing membrane extends over the entire Deep Drawn Drain Collar (including portions thereof residing within the recessed area), over the standard clamping ring assembly (including over and inboard all outer edges of top and bottom clamping rings of such assembly), and over the mortar and pea gravel within the recessed area around the drain grate. Cutting the waterproofing membrane so that it fits tightly around the drain grate minimizes water seepage into the mortar and pea gravel within the divot region.
- Apply appropriate SikaTile® mortar with a 1/4"x 3/16" (6 mm x 5 mm) V-notched trowel over SikaTile®-910 Floor Mud mortar bed. Press the SikaTile®-150 Moisture Guard Fabric Membrane firmly into the tile mortar. Remove any trapped air to guarantee full adhesion to the material by spreading the SikaTile® mortar from the center of the fabric sheet membrane outward to the edges using a trowel or straightedge with rounded corners.
- Apply Sikaflex®-11 FC Sealant over the waterproofing membrane abutting the drain grate area to further provide a watertight assembly, particularly within the recessed area.



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SikaTile®-150 Moisture Guard Fabric DH Deep Drawn Drain Collar is available in both 3/4" (19 mm) and 1-1/2" (38 mm) depths and a 17" (43 cm) diameter.

If flood testing is required, allow SikaTile®-150 Moisture Guard Fabric Membrane system to cure for at least 24 hours at 73°F (23°C) and 50% relative humidity (RH).

#### **TILE INSTALLATION**

Interior tile or stone installations can take place immediately after the installation of SikaTile®-150 Moisture Guard Fabric system.

#### Ceramic, porcelain and stone tile:

- Using a SikaTile® polymer-modified mortar suitable for the tile being installed, in accordance with the TCNA Handbook for Ceramic Tile Installation and with porcelain tile manufacturer's instructions, skim the surfaces of SikaTile®-150 Moisture Guard Fabric Membrane using the flat side of the trowel, ensuring that the mortar is embedded into the fabric.
- Apply additional mortar and comb over the membrane in a single direction using the recommended notched trowel suited to the size and type of tile being installed. Install tile in accordance with industry guidelines.

#### Moisture-sensitive stone tile:

 Use SikaTile®-825 Epoxy Grout, 100%-solids epoxy setting mortar and grout, according to the Product Data Sheet instructions pertaining to the installation of moisture-sensitive stone or call Sika® Technical Service for installation information.

#### FLOOD TESTING (per ASTM D5957)

Flood testing is recommended before the finished floor is installed, even if not required. Allow SikaTile®-150 Moisture Guard Fabric Membrane system to cure at least 24 hours at 73°F (23°C) and 50% relative humidity. Actual curing time depends on air and substrate temperatures, substrate porosity and humidity. Expect shorter drying times in warmer conditions, and longer drying times in cooler conditions.

#### **PROTECTION**

Protect from traffic, dirt, or dust from other trades until the final installation of the floor covering.

#### **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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