WATERPROOFING
SIKATILE®-150 MOISTURE GUARD SYSTEM INSTALLATION GUIDE

BUILDING TRUST

WATERPROOFING INSTALLATION

SikaTile®-150 Moisture Guard Fabric Membrane System instructions

OVERVIEW

This manual provides detailed instructions for the installation of Sika® materials, including SikaTile®¬150 Moisture Guard Fabric Membrane and related accessories. Proper surface preparation, application techniques, and maintenance are essential for ensuring a waterproof and durable finish.
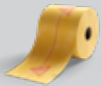
MATERIALS COVERED

SIKATILE®-150 MOISTURE GUARD FABRIC MEMBRANE
Available in:
- 108-sq. ft. roll
- 323-sq. ft. roll

SIKATILE®-150 MOISTURE GUARD ST
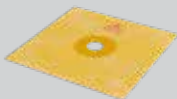Available in:
- 5" x 5m-roll
- 5" x 30m-roll

SIKATILE®-150 MOISTURE GUARD DH

SIKATILE®-150 MOISTURE GUARD IC

SIKATILE®-150 MOISTURE GUARD OC
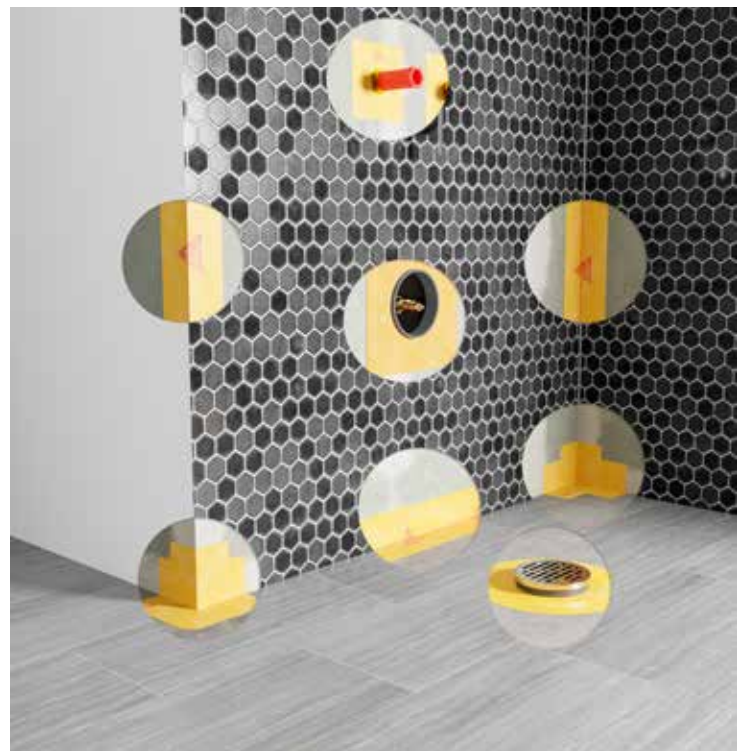
SIKATILE®-150 MOISTURE GUARD PC

SIKATILE®-150 MOISTURE GUARD MVS

SIKAFLEX-11 FC

INTRODUCTION

SikaTile®-150 Moisture Guard Fabric Membrane is a flexible, thin, durable 3-ply polyethylene sheet membrane designed for waterproofing and vapor control in both residential and commercial interior and exterior applications. The membrane is equipped with non-woven, polypropylene fabric on both sides, ensuring maximum adhesion when embedded in tile adhesive. This makes it an ideal solution for waterproofing applications in areas like showers, steam rooms, kitchens, and other wet zones.

Product Features:
- Waterproof and vapor control membrane
- Low perm rating per ASTM E96 Method E (ideal for steam rooms)
- Lightweight, polyethylene sheet with non-woven polypropylene fabric
- Easy to install with minimal surface elevation change
- IAPMO listed and ICC approved
- Can be installed on various substrates, including cement board, concrete, and plywood
- It can be used with SikaTile®-150 Moisture Guard Fabric seam tape, corners, pipe seals, mixing valve seals, drain hats, and Sikaflex®-11FC for a complete waterproofing assembly.

Intended Uses:
SikaTile®-150 Moisture Guard Fabric Membrane is recommended for use in:
- Showers, tub surrounds, steam rooms, steam showers, bathrooms, kitchens, and other wet areas requiring waterproofing
- Both interior and exterior applications, including walls, floors, and backsplashes
- Commercial and residential installations

Suitable Substrates:

The membrane is suitable for installation on the following substrates:

- Cement-based surfaces (including cement backer board, cement mortar beds, and cement terrazzo)
- Concrete surfaces (must be cured for a minimum of 28 days)
- Exterior-grade plywood and Oriented Strand Board (OSB) (interior use only)
- Gypsum drywall and wallboard (must be primed)
- SikaLevel® Products (for leveling applications)

SURFACE PREPARATION

General Requirements:

- All surfaces must be structurally sound, dry, clean, and free from contaminants such as oil, grease, wax, paint, old adhesives, sealers, and curing compounds.
- Temperature Range: Surfaces should be between 40°F (4°C) and 90°F (32°C).
- Deflection: Substrate deflection should not exceed L/360 for ceramic and porcelain tiles and L/720 for natural stone.
- Ensure surfaces are plumb and true, with deviations no greater than ¼" in 10' (for large format tiles, 1/8" in 10').
- Patching/Leveling: Use Sika underlayments where necessary.
- Expansion Joints: Provide joints according to TCNA method EJ171.
- Concrete must be free from hydrostatic pressure and excessive

moisture.

Drain Requirements:

- If installing with drains, ensure a minimum slope of ¼" per foot (6mm per 0.30M) towards the drain.
- Refer to TCNA Handbook, ANSI standards, and local codes for waterproofing applications.

MEMBRANE APPLICATION (WALLS):

1. **Substrate Preparation:**
   - Clean the surface of any dust or debris.
   - Dampen porous or dry substrates with a damp sponge to avoid premature drying of the mortar.
   - Fill cracks, cold joints, and control joints with SikaTile polymer-modified mortar to ensure a smooth finish.

2. **Cutting Membrane:**
   - Measure and cut the SikaTile 150 Moisture Guard Fabric Membrane to the required length, allowing for 2" overlaps or use

   SikaTile-150 Moisture Guard ST Sealing Tape as an alternative.

3. **Mortar Preparation:**
   - Mix a SikaTile polymer-modified mortar that meets at least ANSI A118.4 or A118.11, such as StikaTile®-450 Premium LFT Mortar. Add 10-20% more water than recommended to achieve a mortar that holds a notched ridge and allows proper wetting of the fabric backing.

4. **Applying Mortar:**
   - Key the mortar into the substrate with the flat side of the trowel. Wipe gypsum wallboard with a damp sponge and prime before mortar application.
   - Spread the mortar using a ¼" x 3/16" V-notched trowel, combing it in a single direction. Apply only as much mortar as can be

covered before it skins over.

- If the mortar skins over, remove it and apply fresh mortar.

5. Embedding the Membrane:
- Apply the SikaTile 150 Moisture Guard Fabric Membrane into the mortar using a rubber float, plastic taping knife, or hand roller. Work from the middle to the outside edges to avoid air pockets under the membrane.

- Occasionally lift the membrane to check for complete coverage.

6. Cleaning:
- Clean excess mortar off the membrane using a damp sponge.

7. Repeat Process:
- Repeat steps 4-8 for each wall panel.

8. Seam Bonding:
- Bond seams (including inside corners) by overlapping the

SikaTile 150 Moisture Guard Fabric by 2" or apply SikaTile-150 Moisture Guard ST Sealing Tape.
- Apply mortar over the seams and key it into place with the flat side of the trowel. Ensure at least 2" overlap of the fabric or tape and embed it with a rubber float or similar tool.

9. Valves & Pipe Fittings:
- For pipe fittings such as showerheads or mixing valves, adhere

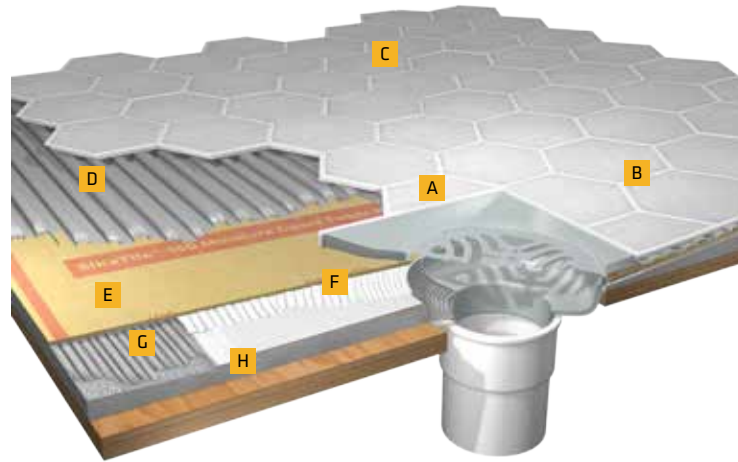SikaTile®-150 Moisture Guard Fabric PC or SikaTile®-150 Moisture

Guard Fabric MVS with SikaTile polymer-modified mortar.

DRAIN TREATMENTS

Bonding Flange Drain:
1. **Pre-slope the substrate flush to the top of the bonding flange drain.**
2. **Lay the fabric over the flange, cutting drain and bolt openings.**
3. **Apply mortar to the substrate up to the drain flange edge without covering bolt openings.**
4. **Apply a continuous bead of**
5. **Sikaflex®-11FC Sealant on top of the flange.**
6. **Embed the fabric into the mortar and sealant, ensuring the fabric follows the slope and allows proper drainage.**

Linear Drain:
1. **Pre-slope the substrate flush to the top of the drain flange.**
2. **Lay fabric over the flange, cutting the drain opening.**
3. **Apply mortar to the substrate up to the flange edge.**
4. **Apply SikaFlex-11FC Sealant to the top of the flange.**
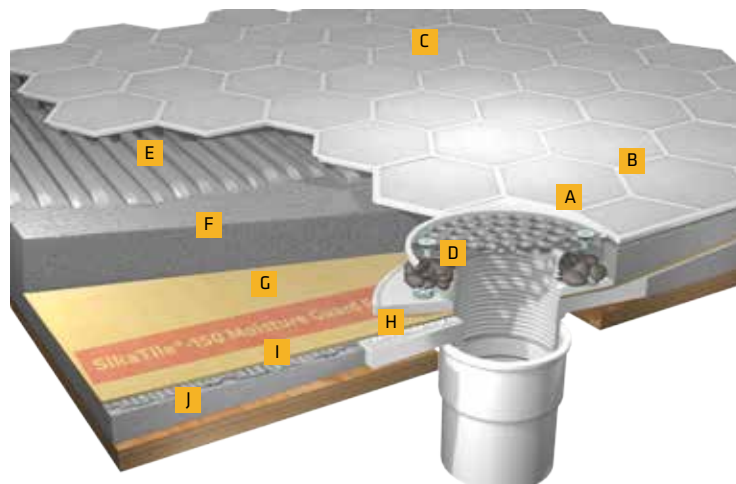5. **Embed the fabric into the mortar and sealant before it sets, ensuring proper drainage flow.**

Clamping Ring Drain:
1. **Pre-slope the substrate flush to the top of the drain flange.**
2. **Lay the fabric over the drain, cutting holes for bolts and the drain grate.**
3. **Embed the fabric, ensuring proper alignment with the drain.**
4. **Apply SikaFlex-11FC Sealant around the flange.**
5. **Tighten the clamping ring and flatten fabric, mortar, and sealant.**
6. **Protect weep holes with pea gravel before tiling.**

Clamping Ring Drain Using Divot Method:
1. **Install a bonded or non-bonded mortar bed around the clamping ring.**
2. **Apply SikaFlex-11FC Sealant to the clamping ring.**
3. **Apply tile mortar over the bed under the deep drawn drain hat.**
4. **Install SikaTile 150 Moisture Guard DH Drain Hat, pressing it into the mortar.**
5. **Secure the clamping ring, tighten nuts, and ensure no weep holes are blocked.**
6. **Fill the recessed area with pea gravel and mortar.**
7. **Install waterproof membrane over the flooring, extending to ½" from the drain grate.**

INSTALLATION FOR FLANGE DRAIN

A. SikaTile®-885 Secure Silicone Caulk

B. SikaTile® Grout

C. Ceramic Tile, Porcelain Tile or Natural Stone

D. SikaTile® Mortar (ANSI A118.4 or Better)

E. SikaTile®-150 Moisture Guard Fabric Membrane

F. Sikaflex®-11 FC

G. SikaTile® Mortar (ANSI A118.4 or Better)

H. Sika® Mortar Bed/ Deck Mud

INSTALLATION FOR CLAMPING-RING DRAIN

A. SikaTile®-885 Secure Silicone Caulk

B. SikaTile® Grout

C. Ceramic Tile, Porcelain Tile or Natural Stone

D. Pea Gravel

E. SikaTile® Mortar (ANSI A118.4 or Better)

F. Sika® Mortar Bed/ Deck Mud

G. SikaTile®-150 Moisture Guard Fabric Membrane

H. Sikaflex®-11 FC

I. SikaTile® Mortar (ANSI A118.4 or Better)

J. Sika® Mortar Bed/ Deck Mud

CURBS

1. Address shower curbs with membrane before applying corner pieces or seam tape to the curb.
2. Use enough membrane to overlap the floor membrane by at least two inches, or use seam tape.
3. Apply the membrane with the same techniques demonstrated earlier.

FLOOR AND WALL CONNECTIONS

1. Install SikaTile-150 Moisture Guard Fabric IC and OC pre-formed corners using appropriate polymer-modified mortar.

2. Use SikaTile-150 Moisture Guard Fabric ST Sealing Tape or overlap seams by 2" at floor-wall transitions.

FLOOD TESTING

- If flood testing is required, ensure the SikaTile 150 Moisture Guard Fabric Membrane system has cured for 24 hours at 73°F (23°C) and 50% relative humidity (RH) before conducting the test.

BEST PRACTICES

- If bulges or creases appear during installation, peel away and reapply the membrane carefully.
- For large sections, shingle (overlap) without the need for Seaming Tape (minimum overlap of 2").
- If the membrane is damaged after installation, patch with a new section overlapping the damaged area by 2".

- Install Seam Tape last for change of plane, inside and outside corners, and valve covers.

CONCLUSION

Following these instructions will ensure the proper installation of SikaTile products, providing a waterproof, durable surface for tile applications. Always follow local codes, industry standards, and best practices for optimal performance.

NEED MORE INFORMATION?

Sika's support is available for any SikaTile® tiling and grout situation. For additional assistance, contact Sika's Technical Department at 1-800-933-7452.

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Sika

aTile®-150 Moisture Guard Fabric Membrane

WATERPROOFING BEYOND THE EXPECTED.

FOR MORE PRODUCT INFORMATION, VISIT WWW.SIKATILE.COM.

WE ARE SIKA:

The SikaTile® Secure System delivers the best Sika solution to meet project needs and overcome everyday challenges. From moisture mitigation to underlayments, patching and skimming to flooring adhesives and grouts, Sika provides a total system package.

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Sika®