

SLOPESHIELD SA® SELF-ADHERED

Vapor Permeable Roof Underlayment

INSTALLATION INSTRUCTIONS

OVERVIEW

SlopeShield SA Self-Adhered membrane is a fully adhered version of the SlopeShield mechanically attached roof underlayment membrane. SlopeShield SA Self-Adhered membrane includes a permeable adhesive applied to the backside of the material which is protected by a siliconized release paper that is removed during the installation process.

SlopeShield SA Self-Adhered membrane is designed to be used as a roof underlayment membrane providing a secondary rain barrier with liquid water holdout capabilities.

Ribbit Tip: SlopeShield SA Self-Adhered is not intended as a temporary roof system.

ROOFING SYSTEMS and ROOF DECK SUBSTRATES

SlopeShield SA Self-Adhered membrane can be installed under a variety of roofing systems including:

Metal Roofing
 Slate
 Clay Tile
 Cedar Shingles/Shakes

SlopeShield SA Self-Adhered membrane can be installed over a variety of roof deck substrates including:

- Plywood
- DensDeck
- Most Rigid Insulation
- Steel or Aluminum (painted or mill finish)
- Sloped Concrete



Ribbit Tip: UV Stable for up to 4 months of exposure.

BEST PRACTICES

- Primer is NOT required.
- Plan the installation and layout of SlopeShield SA Self-Adhered membrane PRIOR to application to minimize waste.
- Prior to membrane installation all roof penetrations must be installed and secured in-place.
- Recommend detailing around penetrations, skylights and curbs to provide an air and water tight installation.
- Always install perpendicular to roof slope.
- Install in an overlapping shingle format with the upper courses lapped over the lower courses to shed water down the roof (Reference Roof Slope Applications Chart).
- Avoid foot traffic and construction material storage on installed SlopeShield SA Self-Adhered membrane material.
- Prior to installation and removing release paper, unroll and allow material to adjust to the ambient temperature.
- Pre-cut SlopeShield SA Self-Adhered membrane to desired manageable lengths, prior to installation.

DELIVERY, PACKAGING and STORAGE

- Deliver the SlopeShield SA Self-Adhered membrane and accessory products to the job site in original undamaged packaging.
- Store roll materials vertically on end in original packaging at temperatures between 40°F and 120°F (4°C 49°C).
- Protect materials from direct sunlight and inclement weather until ready for use.
- Keep plastic roll cover to protect partial rolls during installation until ready for use.

SUBSTRATE INFORMATION

- Do not install SlopeShield SA Self-Adhered membrane when ambient temperatures are below 20 degrees Fahrenheit.
- Verify that surfaces and conditions are ready to accept the work of this section. Notify [engineer] [architect] [consultant] in writing of any discrepancies.
- All surfaces must be clean and dry to the touch and in "as new condition," sound, clean and free of oil, grease, dirt, or other contaminants. Roof deck must be continuous and uniform.
- Ensure all preparatory work, including installation of mechanical and electrical penetrations and fixtures are complete and secured in-place prior to applying SlopeShield SA Self-Adhered membrane roof underlayment membrane.
- Mechanical fasteners used to secure sheathing boards, insulation or penetrate roof deck shall be set flush with surface and fastened into solid backing.





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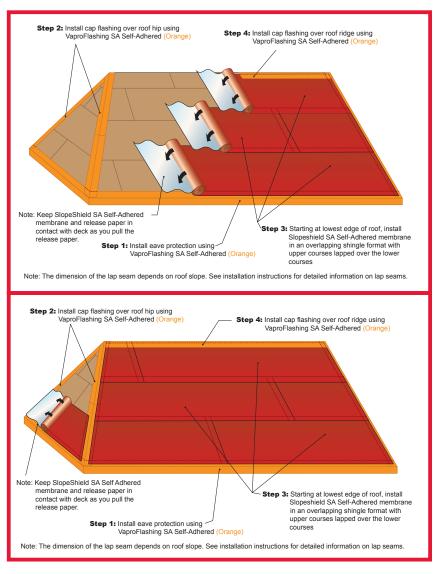
ROOF SLOPE APPLICATIONS

Roof Slope	Lap Seams	Application Notes
1:12 up to 2:12	Minimum 12 inch lap seams	Use only as slip sheet under metal roof, will not act as a secondary barrier
>2:12 up to 4:12	Minimum 12 inch horizontal and vertical lap seams	Provide VaproTape or sealants around clips and other similar penetrations
4:12 and greater	Minimum 6 inch horizontal and vertical lap seams	Tape not required for clips

BEST PRACTICES INSTALLATION OF SLOPESHIELD SA SELF-ADHERED MEMBRANE

Complete Self-Adhered VaproFlashing membrane installation around roof connections, up-turn details, stack and vent pipes and other junctures or penetrations prior to the installation of the field membrane (See Penetration Section).

- Pre-cut SlopeShield SA Self-Adhered membrane to desired lengths.
- Install in overlapping shingle format (reference Roof Slope Application Chart for lapping guidelines).
- Snap chalk lines for alignment guidance.
- Allow membrane to hang down over to lowest point of fascia or as detailed.
- At bottom of roof, allow for excess material to accommodate adjacent surface tie-ins at fascia and soffit connections to wall air barrier (reference details per architect or roof consultant).
- Peel back, cut and remove approx. 6" of release paper at the beginning edge.
- Align and place exposed membrane into position using hand pressure to adhere membrane to substrate.
- Roll out material with release paper intact while checking for proper alignment.
- Reposition as required.
- Re-roll material back to starting location.
- Use hand pressure to press membrane onto substrate.
- Keep SlopeShield SA Self-Adhered membrane and release paper in contact with deck as you pull the release paper.
- Smooth out air bubbles as you pull release paper.
- Once SlopeShield SA Self-Adhered membrane has been laid out smooth, go over membrane with weighted roller to ensure proper adhesion to substrate.
- Limit repositioning and avoid raising the membrane off the deck.





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PENETRATION SEALANTS

- Seal penetrations and lap seams around pipe penetrations with Dow 758 silicone or Tremco Butyl sealant.
- Detail penetrations prior to the installation of the field membrane.
- Always ensure overlapping shingle format result.

PENETRATIONS, UP-TURN FLASHINGS AND CURBS

- Install VaproFlashing Self-Adhered membrane and seal to roof connections, up-turn details, stack and vent pipes and other junctures or penetrations of the roof system.
- Install pre-manufactured penetration sleeves (by others) around mechanical and electrical penetrations as per Mechanical Electrical Division and manufacturer's written instructions.
- Install double-sided VaproTape across the top and sides of pre-manufactured penetration sleeves, pre-measure and fit water-resistive vapor permeable roof underlayment membrane over and around sleeves and press into double-sided VaproTape against the sleeves as appropriate to form a weather tight connection.
- Install pre-manufactured curbs (by others) as per approved shop drawings for curb and roof system installations.
- Extend SlopeShield SA Self-Adhered membrane over curbs.

VALLEY CONDITIONS

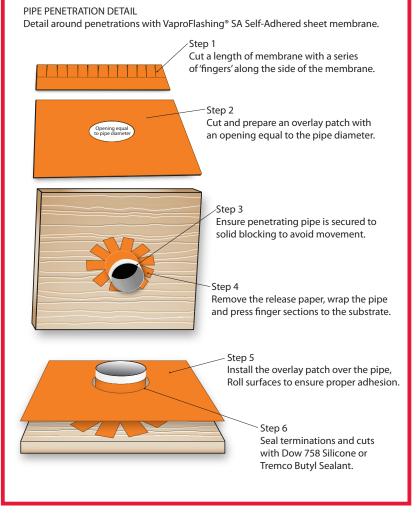
- Verify that surfaces and conditions are ready to accept the work of this section. Roof deck must be continuous and uniform.
- Measure and pre-cut SlopeShield SA Self-Adhered membrane into manageably sized sheets to suit the application conditions.
- Install full width sheets of SlopeShield SA Self-Adhered membrane centered in valley.
- Start at lowest point of roof.
- Install SlopeShield SA Self-Adhered membrane in roof slope direction and in overlapping shingle format.
- Install second-ply of SlopeShield SA Self-Adhered membrane on each side of valley.
- Place membrane in the roof slope direction in overlapping shingle format.
- Roll installed applications of SlopeShield SA Self-Adhered membrane ensuring positive contact with substrate.

PROTECTION DURING INSTALLATION

- Cover membrane as soon as practical.
- TARPING is recommending during construction phase.
- Protect completed installations of SlopeShield SA Self-Adhered membrane from damage due to extreme weather conditions, physical abuse and other sub-trades.
- During SlopeShield SA Self-Adhered membrane installation, prevent rainwater runoff draining from upper roofs to lower roofs, such as overhangs/eaves/valleys, onto SlopeShield SA Self-Adhered membrane.

REPAIR AND CLEANING

- Measure and pre-cut roof underlayment membrane to cover damaged area with minimum 12 inch overlap to the sides and bottom.
- Roll membrane to ensure positive contact.
- Remove and replace SlopeShield SA Self-Adhered membrane affected by chemical spills or surfactants.





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LIMITATIONS

1. UV EXPOSURE

· UV stable for up to 4 MONTHS of exposure.

2. NOT INTENDED AS TEMPORARY ROOF SYSTEM

- SlopeShield SA Self-Adhered membrane is not intended to be a temporary roof system and may not remain watertight when exposed to extreme weather conditions.
- · Tarping of SlopeShield SA Self-Adhered membrane and roof deck is recommended.
- · Cover SlopeShield SA Self-Adhered membrane with permanent roof cladding as soon as practical.

3. LOCAL REGULATIONS

- · Check local regulations for use and application of membranes required for perimeter eave protection.
- Provide and maintain appropriate soffit ventilation at perimeter eaves, and wall to roof insulation requirements to avoid accumulation of ice dams.

4. SAFETY

- Persons who access any roofs, involved with roof construction, repair or maintenance shall use
 appropriate personal protective equipment including, but not limited to, hard hats, eye protection, and
 leather gloves and must be trained on safe practices relevant to their work.
- Where the use of ladders, scaffolds, platforms or temporary floors are utilized, safety lines and safety belts shall be used. Please access the OSHA Web site at www.osha.gov, contact your local OSHA office or visit the local federal bookstore to obtain the most current information on OSHA 29 CFR 1926.

Sample Warranty On Following Page





VaproShield LLC 20-Year Product Warranty

Job #:Owner Name:Purchase Date:Address:Installation Date:City/State/Zip:

Project Name:Installer NameAddress:Address:City/State/Zip:City/State/Zip:PRODUCT:Date Issued:

LIMITED PRODUCT WARRANTY AND DISCLAIMER*:

A) PRODUCTS TO WHICH WARRANTY APPLIES:

- 1). WALLSHIELD®
- 2). WrapShield®
- 3). WrapShield SA® self-adhered
- 4). WrapShield RS™
- 5). REVEALSHIELD™
- 6). RevealShield SA^{TM} self-adhered
- 7). SLOPESHIELD®
- 8). SlopeShield SA^{\otimes} self-adhered
- 9). VAPROMAT™
- 10). VaproFlashing™
- 11). VaproFlashing SA^{tm}
- 12). REVEALFLASHING™
- 13). RevealFlashing SA^{TM} self-adhered
- 14). VAPROFLASHING Factory Formed Corners[™]
- 15). VAPROLIQUI-FLASH™
- 16). VAPROBOND™

B) LIMITED WARRANTY:

The WallShield, WrapShield, WrapShield SA, WrapShield RS, RevealShield, RevealShield SA, SlopeShield, SlopeShield SA and VAPROMAT products are suited for their intended use as an underlayment, weather resistive barrier, or as an air barrier. VaproShield will warrant its products for a period of twenty (20) years from the date of purchase.

VaproShield will replace any faulty product, provided the product used is installed per the published installation instructions and details. VaproShield installation instructions are provided with the products and/or are available at www.vaproshield.com, or by calling VaproShield toll free at 1-866-731-7663.

This warranty is transferable upon sale of the project, but in no event does it extend beyond 20 years from the date of original purchase of the product. Any and all claims must be made in writing within 20 business days after the owner discovers or obtains knowledge of any

defect in the product(s). VaproShield must be given reasonable opportunity to inspect the allegedly defective product and all damage prior to alteration or removal of the product or any surrounding building components.

All claims must be made in accordance with the claims and inspection procedure noted herein.

This warranty shall not apply to, and VaproShield shall not be liable for, any damages arising in whole or in part from any one or more of the following:

- 1) WallShield, WrapShield, WrapShield SA, WrapShield RS, RevealShield, RevealShield SA, SlopeShield, SlopeShield SA and VAPROMAT that is not stored or installed in accordance with VaproShield's installation instructions in effect at the time of the installation.
- 2) Improper building practices or design not in accordance with the applicable building code or industry standards, or any deviation from approved construction plans or specifications.
- 3) Damage to WallShield, WrapShield, WrapShield SA, WrapShield RS, RevealShield, RevealShield SA, SlopeShield, SlopeShield SA and VAPROMAT resulting from causes other than normal weather conditions, including impact of falling objects, "Acts of God," earthquakes, hurricanes, flood, fire, hailstorms, high winds, cascading roof/floor water, ponding water, immersion in water, or improper installation of any building component.
- 4) Defects in the structure or a component of the structure (e.g., window, door, or wall system), premature deterioration of the building materials, or non-standard use of the VaproShield products.

5). Contamination of membrane with building site chemicals including, but not limited to, surfactants or substances that adversely affects its water resistance.

OPEN JOINT APPLICATIONS:

VaproShield will warrant material for any open jointed cladding systems when VaproShield's Best Practices, details, and installation instructions (in effect at the time of the installation) are followed.

C) DISCLAIMER:

This warranty is limited to product replacement. This warranty is the sole warranty and is being provided in lieu of any other warranties, whether express or implied. Neither VaproShield LLC nor any of its affiliated companies, including product manufacturers, suppliers, representatives or distributors shall be liable for labor costs, consequential damages (such as personal injuries or damage to property) of any kind, loss of profits, loss of use, or any other damage or injury, whether known or unknown, that is caused or alleged to have been caused in whole or in part by any VaproShield product.

Any deviation from VaproShield's published Best Practices, details, and installation instructions (in effect at the time of the installation) shall void this warranty as to the entire project, unless such deviation was pursuant to a written directive or approval by VaproShield's Technical Team. Under no circumstances is a product sales representative, or any other individual or entity, authorized by VaproShield to direct or approve any VaproShield product installation, including but not limited to any deviation from VaproShield's published Best Practices, details, and installation instructions.

This Warranty is not valid unless and until VaproShield product has been paid for in full.