

Vapour Permeable Air Barrier Membranes for Sloped Roof and Rain Screen Wall Systems

Installation Guide for SRP AirOutshield™ SA 280 Self-Adhered, Vapor Permeable Air Barrier for and Sloped Roof and Rain Screen Walls

INTRODUCTION

Following is a general installation guide for SRP-AirOutshield SA 280 to be installed in walls or sloped roofs as an air barrier, sheathing membrane, water resistive barrier or underlayment. SRP AirOutshield SA 280 has a red printed outer-face, and a factory applied, permeable adhesive on the back that is protected with a silicone coated PET release film. This release film is removed during the installation.

LIMITATIONS

1. Ensure that the product selected is appropriate for the intended use. Refer to the Technical Data Sheet.
2. Do NOT install SRP AirOutshield SA 280 in,
 - a. Open joint systems where permanent UV exposure exists (use SRP AirOutshield UV).
 - b. In areas requiring a vapor barrier or waterproof membrane.
 - c. In sloped roofs if the slope is less than 2:12 slope.
 - d. For any other use not included in the technical data sheet.
 - e. In areas where water will collect or pond.
3. The surface and ambient temperature must be (minus) -6°C and rising at the time of installation.
4. In sloped roofing applications, protect installed membrane from foot traffic, mechanical damage and in accordance with the Extreme Weather Statement on the last page of this document.
5. Observe all health and safety precautions including slip and fall precautions.
6. Protect rolls of membrane from physical abuse, flame and other high heat sources, as well as chemicals including surfactants (soaps) and solvents. Remove mud and other substances using water only. If chemicals have been spilled on underlayment, remove and replace.
7. For high rise applications, over 18 m (60 ft), or situations not clearly described here contact SRP at 1 866 533 0233.

GENERAL

1. Comply with project specifications, local codes and industry best practices.
2. Install in a “shingle style” in all areas including laps, penetrations and intersections to facilitate positive drainage to the exterior. Reverse laps should be avoided and must be sealed as described in this guide.
3. In wall applications, install in a vertical or horizontal direction.
4. In roof applications, apply perpendicular to the slope of the roof.
5. Plan the layout to minimize waste.
6. Overlaps are to be a minimum of 75mm in the field and 150mm onto adjacent membranes and in corners.
7. Stagger intersecting vertical seams by at least 150mm
8. All applications must be rolled using a hard rubber countertop roller to ensure maximum adhesion is attained
9. Store materials vertically, in original packaging and at temperatures 5°C to 32°C (40°F to 90° F).

AUXILIARY MATERIALS

The SRP AirOutshield SA 280 is self-adhered and requires very few accessories. Use the following only as required.

1. Sealants and liquid flashing materials: Masterseal NP-1, or others as approved by SRP.
2. Flashing membranes: As specified and in compliance with local building codes.
3. Tapes for tie ins and reverse laps: SRP 60 UV Seam Seal Tape, SRP 100 UV Seam Seal Tape, black single sided seam tape.
4. Primer: SRP HP Primer
5. Fasteners: Minimum No. 12-gage [0.109-” shank-diameter (2.77mm)] corrosion-resistant steel or stainless-steel nails having a minimum 3/8-” diameter (9.5 mm) head, or minimum No. 14 gage [0.083 ”shank diameter (2.11 mm)] corrosion-resistant steel or stainless steel screws or nails installed with a 1-”-diameter (25.4 mm) cap, plate or washer. Ensure compatibility with cladding system.

Vapour Permeable Air Barrier Membranes for Sloped Roof and Rain Screen Wall Systems

6. Ventilation mat, strapping or battens: As specified and in compliance with local building codes.

SURFACE PREPARATION

1. All substrates must be clean, dry, free of frost, loose nails, dirt, debris, oils or other contaminants that would adversely affect the installation.
2. Ensure the following are installed properly prior to proceeding
 - a. Sheathing panels and all related fasteners.
 - b. Any penetrations including vents, conduits, pipes.
 - c. All through wall flashings.
 - d. Roofing curbs and upstands.
3. Concrete and CMU (concrete masonry units) surfaces must be,
 - a. Surface dry and cured a minimum of 14 days
 - b. Smooth and free from gaps, voids, spalls and fins.
 - c. Clean and free from release agents, curing compounds or other contaminants that may interfere with adhesion.
4. Gaps between sheathing panels, and at penetrations, that are greater than 6mm must be prefilled prior to installing AirOutshield SA 280. Use a compatible sealant or filler and allow it to cure before proceeding.
5. All installed fasteners must be flush with the surface and secured into a solid backing.

INSTALLATION - GENERAL

1. Surface and ambient temperature must be (minus) -6°C and rising at the time of installation.
2. SRP AirOutshield SA 280 has been formulated to be installed over properly prepared surfaces without the need for a primer.
3. To confirm that the installed product will have adequate adhesion we recommend a field test be performed. Install a sample of SRP AirOutshield SA 280 in accordance with this installation guide and allow it to cure for at least 6 hours at 20°C (or longer in cold temperatures) before testing.
4. If a primer is required, use **SRP HP Primer** (product code PRM01 or PRM05)
5. NOTE: Primers reduce the water vapor transmission rate of breathable membranes and exposure to solvents contained in many primers reduce the ability of the membrane to resist the passage of water- see Limitations. When assessing the level of adhesion required, we recommend taking into account the mechanical attachment contribution provided by the installation of the cladding system and its supporting components.

DETAILING

1. Identify all areas to be detailed with a transition membrane including, but not limited to,
 - a. Areas where movement may occur.
 - b. Seismic joints, expansion joints, and floor to floor joints in wood frame construction.
 - c. Connections with other adjacent components such as curtain wall systems, windows and roofing membranes.
2. Remove release film, apply to the surface and apply pressure using a hard rubber countertop roller or 'J-roller'.
3. Leave release film attached where needed to accommodate proper shingled overlap with membrane to be installed after.

INSTALLATION - WALLS

SRP AirOutshield SA 280 is applied on walls to function as the air barrier, sheathing membrane or secondary plane of protection. We recommend 2 people perform this installation.

1. Plan the layout of the membrane noting that it can be installed vertically or horizontally.
2. Start at the base of the wall, cut material to desired length and re-roll with release film facing outward.
3. Unroll membrane and place it in its final position.
4. Remove ONLY approx. 150mm of the release film, exposing the sticky adhesive. Adhere this to the substrate and apply pressure.
5. Roll out membrane and carefully cut through it to accommodate existing penetrations.

Vapour Permeable Air Barrier Membranes for Sloped Roof and Rain Screen Wall Systems

6. Roll up the membrane, remove the release film slowly and adhere it to the surface ensuring it remains in alignment. Chalk lines may assist with this process.
7. Once the membrane is in its final position, smooth out using a plastic wallpaper trowel, or similar. Avoid damaging membrane.
8. Ensure overlaps are a minimum of 75mm in all areas in the field and 150mm in corners.
9. Tie into detail membranes already installed always ensuring a shingle style overlap.
10. In areas where the gap between the membrane and penetration is greater than 13mm, install a new piece of membrane overlapping the existing membrane by a minimum of 75mm on all sides.
11. Using a countertop roller or 'J-roller', apply pressure to all installed membrane, flashings and details to ensure appropriate surface adhesion is achieved.
12. At ALL penetrations, apply compatible sealant to create an airtight seal. The sealant bead must overlap the membrane and penetration by a minimum of 13mm. Be sure to completely fill any gaps between the penetration and sheathing or membrane.
13. Ensure water is not able to penetrate the edges of the membrane. At the end of each day of work, seal the top edge of the membrane where it meets the substrate with a compatible sealant. Apply a bead and trowel it to form a feather edge to seal termination and shed water.

DETAILING – SLOPED ROOFS

1. Do not apply if roof slope is less than 2:12 in ALL areas.
2. In areas prone to water ponding install a cricket or similar to deflect the water to maintain a slope of 2:12 or greater.
3. Identify all areas to be detailed including all penetrations such as curbs, upstands, expansion joints, connections with other adjacent components.
4. Install SRP AirOutshield SA 280 to all penetrations to create a watertight and airtight seal and ensure water is routed to the exterior in all areas. Reverse laps are not allowed. Use compatible sealant and/ or tapes as needed. Overlap adjacent membranes by a minimum of 150mm
5. In valleys, at eaves and other areas install a waterproof, modified bitumen membrane to comply with code and best practices. Overlap SRP AirOutshield SA 280 by a minimum of 150mm in these areas. Leave release film attached where needed to accommodate proper overlap with membrane to be installed after.
6. Remove release film, apply to the surface and apply pressure using a rubber roller or similar.
7. NOTE: The primers used with some membranes contain solvents that can damage the SRP membrane. Use sparingly and allow all solvents to flash off before proceeding.

INSTALLATION – SLOPED ROOFS

SRP AirOutshield SA 280 can be applied in sloped roofing systems to function as the underlayment, slip sheet and / or air barrier. We recommend 2 people perform this installation.

1. Plan the layout of the membrane noting that it must be installed perpendicular to the slope.
2. Once all of the detailing has been installed, start at the eave or low point in the roof.
3. Cut material to desired length and re-roll with release film facing outward.
4. Unroll membrane and place it in its final position.
5. Remove ONLY approx. 150mm of the release film, exposing the sticky adhesive. Adhere this to the substrate and apply pressure.
6. Roll up the membrane, remove the release film slowly and adhere it to the surface ensuring it remains in alignment. Chalk lines may assist with this process.
7. Once the membrane is in its final position, smooth out using a plastic wallpaper trowel, or similar. Avoid damaging membrane.
8. Ensure overlaps are a minimum of 75mm in all areas in the field and 150mm in corners.
9. Tie into detail membranes already installed always ensuring a shingle style overlap of 150mm minimum.
10. Using a hard rubber countertop roller or 'J-roller', apply pressure to all installed membrane, flashings and details to ensure appropriate surface adhesion is achieved.

Vapour Permeable Air Barrier Membranes for Sloped Roof and Rain Screen Wall Systems

11. Ensure water is not able to penetrate the edges of the membrane. At the end of each day of work, seal the top edge of the membrane where it meets the substrate with compatible sealant. Apply a bead and trowel it to form a feather edge to seal termination and shed water.

CLADDING OR ROOFING INSTALLATION

Cladding or Roofing Installation

1. Ensure SRP AirOutshield SA 280 is installed in compliance with this installation guide and the project specifications and all details are complete.
2. Mechanical fasteners that penetrate the AirOutshield SA 280 must be set flush and fastened securely into solid backing. When fastening into gypsum board and other non-structural boards, ensure the fastener penetrates a stud or other solid backing.
3. Seal any holes resulting from misdriven fasteners using a compatible sealant.
4. As required by code or specifications, install battens or a ventilation mat over the SRP AirOutshield SA 280 to provide a drying drainage space.
5. In wall applications, install cladding system within 90 days and in accordance with the system manufacturers written instructions and the project specifications. If the membrane is expected to be exposed longer than 90 days, consult with SRP.
6. In sloped roofing applications, install the roofing system as soon as possible and protect with tarps in the interim. See Extreme Weather Statement below.
7. Ensure membrane is not damaged during the installation of the finished roofing or cladding system.

STORAGE AND HANDLING

1. Store materials in a dry location and protect from physical damage, high heat, and chemicals. See limitations.
2. Store materials vertically, in original packaging and at temperatures 5°C to 32°C (40°F to 90° F).

EXTREME WEATHER STATEMENT FOR ROOFING APPLICATIONS

As many areas are experiencing extreme weather conditions such as heavy and prolonged rainfall, "Best Building Practice" would suggest, and SRP AirOutshield recommends that AirOutshield SA 280 be augmented with additional waterproofing materials (e.g., tarps) DURING THE CONSTRUCTION PHASE to ensure that interiors are protected until the primary roofing material is applied. Neither SRP AirOutshield Inc. nor any of its affiliated companies, including product suppliers and manufacturers, shall be liable for damages, including but not limited to consequential damages, that result from water infiltration through AirOutshield SA 280 during the construction phase.

Warranty

The information, and in particular, the recommendations relating to the application and end-use of SRP Canada products, are given in good faith based on SRP Canada's current knowledge and experience of the products when properly stored, handled and applied under normal conditions. In practice, the differences in materials and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any recommendations, or from any other advice offered. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Technical Data Sheet for the product concerned, copies of which will be supplied on request or can be accessed on the Internet under www.SRPAirOutshield.com.

Issued: 2025-01-31