

SECTION 07276: **SRP-AirOutshield™ UV** Ultra Violet (UV) resistant, Vapour Permeable Air Barrier
Underlayment and Sheathing Membrane
Guide Specification

This specification is a guide only and may need editing for the specific intended application. It is the responsibility of the design professional to ensure the accuracy and completeness of the specifications issued.

SECTION 07276 – SRP-AirOutshield™ UV water vapour permeable air barrier underlayment for Open Joint Rain Screen Wall Systems.

GENERAL

1.1 SUMMARY

- A. This Section provides for the exterior wall, breathable underlayment.
- B. Related Sections include the following:
 - 1. Division 6 Section "Rough Carpentry" for exterior sheathing.
 - 2. Division 13 Section "Pre-Engineered Buildings" for metal siding and roofing.

1.2 REFERENCES

- A. ASTM E 96 - Standard Test Methods for Water Vapor Transmission of Materials; Compliant with Procedure A
- B. DIN EN 13859-1 Flexible sheets for waterproofing - Definitions and characteristics of underlays

1.3 SUBMITTALS

- A. Product Data: Include manufacturer's written instructions, technical data, and tested physical and performance properties of breathable underlayment.
- B. Shop Drawings: Provide 1-1/2" scale drawings (or larger) showing relationship of underlayment to:
 - 1. Framing members.
 - 2. Thermal Insulation.
 - 3. Sheathing.
 - 4. All roofing, fascia and gable end conditions.
 - 5. Openings for doors and windows
 - 6. Pipe, Conduit and Duct penetrations.

- C. Samples:
 - 1. 8-1/2-x-11-inch square of breathable underlayment sheet.
 - 2. Tapes (Single & Double-Sided).
 - 3. Provide materials and fasteners for mock-up as specified in Section ____ .
- D. Manufacturer's Instructions: Provide manufacturer's instructions showing the recommended procedures and sequence of installation of breathable underlayment.

1.4 QUALITY ASSURANCE

- A. Ensure all work of this section and the related sections is performed in accordance with local codes and system manufacturer's instructions.
- B. Obtain all breathable underlayment through one source from a single manufacturer.
- C. Pre-installation Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Management and Coordination." Review requirements for underlayment, including surface preparation specified under other Sections, substrate condition and pretreatment, temporary weather protection, forecasted weather conditions, special details and sheet flashings, installation procedures, testing and inspection procedures, and protection and repairs.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in original containers with seals unbroken, wrapped in a polythene sleeve, labeled with manufacturer's name, and product brand name.
- B. Store rolls under cover, on a clean, level surface, either flat or upright.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. UV Resistant [air barrier] [sheathing membrane underlayment] for open joint panel systems: Coated, black, spun bonded polyester, water vapour permeable air barrier membrane with a nominal weight of 270g/m² and water vapour permeance of 1537 ng/Pa/s/m² (26.9 perms) as tested to the ASTM E96 method A. Tested for long term UV exposure in accordance with the DIN EN 13859-1 standard for 5,000 hours exposure with less than 5% reduction in tensile strength and water vapour transmission. SRP AirOutshield UV by SRP Canada Inc. , www.srpcanada.ca 1 866 533 0233.
- B. Roll size 1.5m wide by 50 m long. The product is black on both sides with a coating on the exterior side. Ensure product is installed with this coated face toward the exterior.

2.2 AUXILIARY MATERIALS

- A. Tape
 - 1. Detail Tape:
 - a. Detail Tape, UV resistant, black, 100 mm wide, 0.320mm thick, single sided. SRP 100 UV Seam Tape by SRP Canada www.srpcanada.ca 1 866 533 0233.

- b. Seam Tape: UV resistant, black, 60mm wide, 0.320mm thick. SRP 60 UV Seam Tape by SRP Canada www.srpcanada.ca 1 866 533 0233.
- B. Self Adhered Membrane
 - 1. Self adhered membrane
 - a. Regular temperatures
 - b. High Temperature
- C. Fasteners
 - 1. Fasteners: Minimum No. 12-gage [0.109-inch-shank-diameter (2.77mm)] corrosion-resistant steel or stainless steel nails having a minimum 3/8-inch diameter (9.5 mm) head, or minimum No. 14 gage [0.083-inch-shank-diameter (2.11 mm)] corrosion-resistant steel or stainless steel screws or nails installed with a 1-inch-diameter (25.4 mm) caps, plate or washer.
- D. Ventilation Mat: [6mm] [10mm] thick non woven nylon with maximum 20% contact area.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance.

3.2 SURFACE PREPARATION

- A. Clean and prepare to provide a clean and dry substrate free of frost, loose nails, dirt, debris or other contaminants that would adversely affect the installation of the breathable underlayment.
- B. Do not expose the membrane to chemicals including surfactants (soaps) or solvents.

3.3 Penetrations

- A. Seal all penetrations using a combination of SRP Tapes, Self adhered membranes and other compatible sealants and products. Ensure all laps and details allow water to flow to the exterior.
- B. Pipes and Conduits
 - 1. Cut a piece of SRP-AirOutshield™ UV membrane to act as a skirt around counter flashed penetrations. Distance from penetration to edge of barrier "skirt" minimum 12".
 - 2. Make four cuts to form a star shape and place over penetration snugly. Extend "ears" of material along vertical penetration and seal with SRP 100UV Detail Tape.
 - 3. Tape top edge of "skirt" to wall using SRP 60 UV Seam Seal Tape. Do not tape bottom edge at this time.
- C. Windows and Doors Already Installed

1. Ensure that the window installers have wrapped the opening with membrane (SRP 100 UV or similar) and have installed an apron piece of AirOutshield™ UV at the bottom of the window prior to installing the window.
2. Place a piece of AirOutshield™ UV below the window and apply the apron piece over it in shingle style.
3. Install AirOutshield™ UV over the wall and window in shingle style.
4. Cut the AirOutshield™ UV around the window being careful not to cut the window flange or membrane around the opening.
5. Tape the AirOutshield™ UV to the window using SRP 60 UV Seam Seal Tape.

D. Openings for Windows and Doors to be installed after the AirOutshield™ UV is installed

1. Install AirOutshield™ UV over the entire wall and openings in shingle style.
2. Cut the AirOutshield™ UV horizontally along the head of the opening.
3. At the top corners of the opening place a diagonal cut approx 6 "long to create a flap. Fold this flap upwards and use tape to keep it out of the way.
4. Cut the AirOutshield™ UV down the middle of the opening approx 2/3 the way down and tie this cut into each of the lower corners on a diagonal.
5. Fold the AirOutshield™ UV into the opening, fasten and trim off excess.
6. Install SRP 4 "detail tape as a flashing over the base of the opening, up the vertical sides at least 2 " and over the AirOutshield™ UV. If more than one width is needed ensure they are installed in shingle style.
7. Install the window or door in accordance with the manufacturer's instructions.
8. Starting with the sides, seal AirOutshield™ UV to window flange using SRP 60 or 100 UV Seam Seal Tape. Overlap the sill flashing by at least 2 ".
9. At the top of the window apply a head flashing using SRP 100 UV Detail Tape. This is to be applied directly over the sheathing and onto the frame of the window to ensure drainage to the exterior. Cover this with the flap of AirOutshield™ UV installed previously.
10. Tape all seams around the opening using SRP 60 UV Seam Seal Tape or SRP 100UV Detail Tape.

3.4 INSTALLATION UNDER OPEN JOINTED CLADDING AS A SHEATHING MEMBRANE.

- A. In this section SRP-AirOutshield™ UV is installed as a sheathing membrane or secondary drainage plane under the primary water shedding cladding system. Install with the coated black side facing out, laid such that it forms a continuous membrane over the entire area, allowing any water to drain down to the through wall flashings. Avoid blockages that would otherwise obstruct the water flow.

The product is black on both sides with a coating on the exterior side. Ensure product is installed with this coated face toward the exterior.

1. Starting at base of wall, unroll AirOutshield™ UV horizontally across wall. Extend 6" over starting corner.
2. Fasten at top and bottom of roll within 2" of edge 12 "on centre and at a maximum of 2' 0" on centre in field.
3. Mechanical fasteners that penetrate the AirOutshield UV 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.
4. Shingle next layers of AirOutshield™ UV ensuring minimum 6" horizontal and minimum 12" vertical laps.
5. If installed vertically, overlap vertical seams a minimum of 6 inches and apply SRP 60 UV Seam Seal Tape to all vertical seams.

6. Ensure AirOutshield™ UV is slipped under bottom edge of penetration “skirt” and shingled over taped top edge. Seal top and sides with SRP 60 UV Seam Tape
7. Ensure whole “skirt” assembly is flashed appropriately with metal.
8. Do not place vertical laps above windows.
9. In the field of the wall, apply SRP 60 UV Seam Seal Tape to vertical laps only unless otherwise specified.
10. For delayed installation of siding/masonry determine the number of fasteners for wind exposure. Use cap nails or screws with washers.

3.5 INSTALLATION UNDER OPEN JOINTED CLADDING AS **THE DEEMED AIR BARRIER AND SHEATHING MEMBRANE**

- A. Follow instruction for installation as a sheathing membrane.

Make the AirOutshield UV continuous and resistant to the passage of air. Seal all seams and terminations with SRP Tapes and or a compatible sealant.

3.6 Cladding Installation

- A. Ensure SRP-AirOutshield™ UV is installed in compliance with this specification and all details are complete.
- B. **OPTIONAL** Install Ventilation Mat over the SRP-AirOutshield™ UV to form a positive drainage and ventilation space if a space is not part of the cladding system.
- C. Install primary cladding system as soon as possible and in accordance with the system manufacturers written instructions and the project specifications.

3.7 FIELD QUALITY CONTROL

- A. **[Owner will engage] [Engage]** an independent inspector to observe substrate and installation. Inspector shall provide a written, sign-off log, on all penetrations before the underlayment is placed against them. Form of log shall be approved by Architect before contract with inspection service is approved.

3.8 PROTECTING AND CLEANING

- A. Protect installed SRP-AirOutshield™ UV from damage due to ultraviolet light, harmful weather exposures, physical abuse, and other causes.

Repair torn breathable underlayment by inserting a full height piece of underlayment extending 12 inches horizontally beyond the damage and extend up and under the underlayment above. Mechanically attach underlayment to substrate top and bottom. Tape all seams.

- B. Remove mud and similar marks with a water scrub; do not use soap or solvents. If chemicals have been spilled on underlayment, remove and replace as stated above.

END OF SECTION 07276