SECTION 07276: SRP-AirOutshield™WALL Breathable Underlayment and Air Barrier
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™WALL [Air Barrier] [Sheathing Membrane Underlayment]

PART 1 - GENERAL

1.1   SUMMARY

   A.   This Section provides for the exterior wall, [Air Barrier] [Sheathing Membrane 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.   CCMC Technical Guide 07193 Sheathing, Membrane, Breather Type

   B.   ASTM E 96 - Standard Test Methods for Water Vapor Transmission of Materials; Compliant with Procedure B (Water Method) for interior to exterior testing.

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 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.   Products: [Air Barrier] [Sheathing Membrane] for Wall Systems: Triple layer, spun bonded polypropylene, breathable membrane with a nominal weight of 120 g/m², water vapour transmission of 150 perms minimum as per ASTM E96-95 Method A, Air Permeance: 0.0002 L/s-m2 @ 75 Pa per ASTM 2178 per AC 38 (No Air Leakage). SRP AirOutshield™ WALL by SRP Canada, 1-866-533-0233, www.srpcanada.ca

2.2   AUXILIARY MATERIALS

A.   Detail Tape: SRP 100 UV Tape, single sided. To seal SRP-AirOutshield™WALL to itself and to other surfaces and substrates and mod bit membranes.

B.   Seam Tape: SRP 60 UV Seam Seal Tape: Black single sided seam tape distributed by SRP Canada Inc. To seal vertical and horizontal seams between layers of SRP-AirOutshield™ WALL.

C.   Seam Tape: SRP 1" D.S (double sided) Seam Tape distributed by SRP Canada Inc. To seal vertical and horizontal seams between layers of SRP-AirOutshield™WALL.

D.   Sealant: MasterSeal NP-1 by Master Builders Solutions

E.   Self Adhered Membrane
        1.   Self adhered membrane [choose one and specify a product]
                        a.   Regular temperatures
                        b.   High Temperature

F.   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.

G.   Ventilation Mat or Battens: SRP VM10 Ventilation Mat

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.   Pipes and Conduits
    1.   Cut a piece of SRP-AirOutshield WALL™ membrane to act as a skirt around counter flashed penetrations. Distance from penetration to edge of barrier "skirt" minimum 2".
    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- 4" 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.

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

C.   Openings for Windows and Doors to be installed after the AirOutshield™ WALL is installed
    1.   Install AirOutshield™ WALL over the entire wall and openings in shingle style.
    2.   Cut the AirOutshield™ WALL 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™ WALL 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™ WALL 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™ WALL. 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™ WALL to window flange using SRP- 60 UV Seam Seal Tape or 4 " Detail Tape. Overlap the sill flashing by at least 2 ".
9. At the top of the window apply a head flashing using SRP 4 " 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™ WALL installed previously.
10. Tape all seams around the opening using SRP- 60 UV Seam Seal Tape or SRP- 4" Detail Tape.

3.4 SHEATHING MEMBRANE INSTALLATION

A. In this section SRP-AirOutshield WALL is installed as a secondary drainage plane under the primary water shedding cladding system in accordance with CCMC Sheathing Membrane-Breather Type.

B. Install printed side 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.

1. Starting at base of wall, unroll AirOutshield™ WALL horizontally across wall. Extend 6" over starting corner.
2. Fasten at top and bottom of roll within 2 inches of edge 12 "on centre vertically and at a maximum of 24 inches on centre horizontally in the field.
3. Mechanical fasteners that penetrate the AirOutshield WALL 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™ WALL ensuring minimum 6" horizontal and minimum 12 inch vertical laps.
5. Ensure AirOutshield™ WALL is slipped under bottom edge of penetration "skirt" and shingled over taped top edge.
6. Seal top and sides with SRP- 1" D.S (double sided) Seam Tape
7. Ensure whole "skirt" assembly is flashed appropriately with metal.
8. Do not place vertical laps above windows.
9. For delayed installation of siding/masonry determine the amount of fasteners for wind exposure. Use cap nails or screws with washers.

3.5 AIR BARRIER INSTALLATION

In addition to the above, observe the following when installing SRP-AirOutshield™ WALL as the deemed Air Barrier.
1. Form a continuous air barrier at all details using the SRP tapes.
2. Connect to flashings and air barriers in adjacent areas as installed by others.
3. Install fasteners at a maximum spacing of 12" on centre vertically and 24" on centre horizontally.

SPEC NOTE: The fastener rate may need to be increased if the membrane is to be left exposed to high winds during construction or as required by the design authority.

4. Mechanical fasteners that penetrate the AirOutshield WALL 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.
5. Tape all vertical and horizontal laps using SRP 60 UV Seam Seal Tape.

3.6   Cladding Installation

A. Ensure SRP-AirOutshield™ WALL is installed in compliance with this specification and all details are complete.

B. OPTIONAL Install Ventilation Mat or battens over the SRP-AirOutshield™ WALL to form a positive drainage and ventilation space.

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™ WALL from damage due to ultraviolet light, harmful weather exposures, physical abuse, chemicals including surfactants, soap and solvents.

B. Repair torn breathable underlayment as follows:
1. Insert 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.

C. 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

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