

SECTION 07276: SRP-AirOutshield ROOF® Breathable Underlayment

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 ROOF® Breathable Underlayment

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section provides for the exterior roof, breathable underlayment.
- B. Related Sections include the following:
 - 1. Division 6 Section "Rough Carpentry" for exterior sheathing.
 - 2. Division 7 Section "Clay Tile" for roofing assembly.
 - 3. Division 7 Section "Wood Shakes and Shingles" for roofing assembly
 - 4. Division 7 Section "Metal Roofing" for roofing assembly.
 - 5. Division 13 Section "Pre-Engineered Buildings" for metal siding and roofing.

1.2 REFERENCES

- A. ASTM E 84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
- 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 1-1/2" scale drawings (or larger) showing relationship of underlayment to:
 - 1. Framing or blocking members.
 - 2. Purlins.
 - 3. Metal Decking.
 - 4. Thermal Insulation.
 - 5. Sheathing.
 - 6. All roofing, fascia and gable end conditions.
 - 7. Roofing or attic ventilation penetrations.
 - 8. Roof curbs.
 - 9. Pipe, Conduit and Duct penetrations.
 - a. Include actual manufactured flashing and or "weather-heads."

- C. Samples:
 - 1. 8-1/2-x-11-inch square of breathable underlayment sheet.
 - 2. Tapes (Single & Double-Sided).
 - 3. Factory fabricated curb corners.
 - 4. 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 manufacturers 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:
- B. Spun Bonded Polypropylene, triple layer breather membrane, nominal weight 170g/m², 0.6mm thick, roll size of 1.5m wide by 50 m long, black interior and black exterior colour, Water Vapor Transmission of 119 perms per ASTM E 96-10, Method A (as tested by an independent laboratory).
SRP AirOutshield ROOF by SRP Canada, phone (866) 533-0233, www.srpcanada.ca

2.2 AUXILIARY MATERIALS

- A. Tape
 - 1. Detail Tape:
 - a. SRP-Eternabond 4" Detail Tape, 30 mil, single sided. To seal SRP-AirOutshield ROOF® to itself and to other surfaces and substrates. To connect a Self Adhered membrane to SRP-AirOutshield ROOF®

2. Seam Tape:
 - a. SRP-Eternabond 1" D.S (double sided) Seam Tape distributed by SRP Canada Inc. 30 mil. To seal vertical and horizontal seams between layers of SRP-AirOutshield ROOF®.
- B. Eave Protection
 1. Self adhered membrane
 - a. High Temperature resistant underlayment
- 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: non woven nylon with maximum 20% contact area; R-Vent by Advanced Building Products or similar.

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 substrate according to manufacturers written recommendations. Provide clean and dry substrate free of frost, loose nails, dirt, debris or other containments that would adversely affect the installation of the breathable underlayment.
- B. Do not expose the membrane to chemicals including surfactants and solvents.

3.3 PENETRATIONS

- A. Pipes and Conduit:
 1. Install manufactured penetration sleeves sized for the penetration and install as recommended by the manufacturer.
 2. Unroll SRP-AirOutshield ROOF® membrane next to penetration and fold membrane back on itself. Mark and cut out penetration size out of membrane. Ensure cutout section is slightly smaller than diameter of penetration. Slide membrane over penetration.
 3. Wrap SRP-Eternabond 4" detail tape around penetration. Ensure that 2" extends onto the membrane. If required, install a second 4" piece of SRP-Eternabond detail tape around the penetration. (See standard details)
- B. Large, Curbed, Roof Penetrations:
 1. Follow roof manufacturers and curb manufacturer's approved shop drawings for curb and roof system installation.

2. Unroll and install SRP-AirOutshield ROOF® membrane around curb. Install SRP Pre-Fab Curb Corners. Using strips of SRP-AirOutshield ROOF®, flash curbs connecting SRP Pre-Fab Curb creating a continuous flashing.
3. Using SRP-Eternabond 4" detail tape, seal all flashings strips and pre-Fab corners together. (See standard details)

3.4 EAVE PROTECTION

A.

1. At eaves, install a self adhered eave protection membrane as required by local codes.

3.5 BREATHABLE UNDERLAYMENT APPLICATION

A.

1. SRP-AirOutshield ROOF® is installed as a secondary drainage plane under the primary water shedding roofing such as tile, slate, zinc, copper or metal roofing material.
2. Install printed side up, laid such that it forms a continuous membrane over the entire roof area, allowing any water to drain down to the gutters. Avoid blockages that would otherwise obstruct the water flow.
3. Do not use on roofs with slope less than 2:12 (16.7 %).
4. Fasten using roofing nails or screws. Staples are not recommended. Ensure compatibility between fasteners and the roofing material.
5. Take appropriate precautions during installation in high winds to avoid injury.
6. Along valleys, hips and ridges, lay a single layer of SRP-AirOutshield ROOF® or eave protection membrane and fasten at 12" o.c. At ridge of roof, ensure horizontal overlap, minimum 12" o.c. both sides.
7. Where the self adhered membrane is to be applied over SRP-AirOutshield ROOF® apply a strip of SRP-Eternabond 4" Detail Tape in between. Solvents in self adhered membranes can damage the SRP membrane.
8. At eaves, install SRP-AirOutshield ROOF® overlapping the self adhered eave protection membrane by 12 inches minimum.
9. Unroll SRP-AirOutshield ROOF® horizontally across the roof perpendicular to roof slope. Install successive layers of SRP-AirOutshield ROOF® in a shingling manner up the roof slope maintaining minimum 6" horizontal and vertical overlaps.
10. Tape all seams when roof slope is 3:12 or less or as required by this specification using SRP-ETERNABOND 1" D.S. Double Sided Seam Tape.
11. **OPTIONAL** Tape all vertical and horizontal seams using SRP-ETERNABOND 1" D.S. Double Sided Seam Tape.
12. Extend AirOutshield ROOF 4" over gable ends and fasten to fascia boards at 12" o.c.
13. Fasten AirOutshield ROOF along top and bottom of roll at 12" o.c. and maximum 2'-0" o.c. in the field.
14. During installation, protect SRP-AirOutshield ROOF® from rainwater runoff from upper to lower roofs (overhangs/eaves/valleys).
15. Limit heavy foot traffic on SRP-AirOutshield ROOF® and repair any damaged material due to traffic abuse.
16. AirOutshield ROOF is not to be covered by asphalt shingles.

B. Roof Installation

1. Ensure SRP-AirOutshield ROOF® is installed in compliance with this specification and all details are complete.

2. **OPTIONAL** Install R-Vent Ventilation Mat over the SRP-AirOutshield ROOF® to form a positive drainage and ventilation space.
3. Install primary roofing system as soon as possible and in accordance with the roof system manufacturers written instructions and the project specifications.

3.6 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.

3.7 PROTECTING AND CLEANING

- A. Protect installed SRP-AirOutshield ROOF® from damage due to ultraviolet light, harmful weather exposures, physical abuse, exposure to solvents or soaps and other causes. Augment SRP-AirOutshield ROOF® with additional waterproofing materials (e.g., tarps) DURING THE CONSTRUCTION PHASE to ensure that interiors are protected until the primary roofing material is applied. Manufacturer suggests a maximum of four (4) months UV exposure.
- B. Repair torn breathable underlayment as follows:
 - a. 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 07275

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