Rub-R-Wall® Airtight Air and Vapor Barrier (AVB) System
Guide Specification

Rub-R-Wall® Airtight Air and Vapor Barrier (AVB) System provides a seamless, 100% rubber continuous membrane around the building envelope. It is impermeable to air and water vapor transmission. It can be spray applied directly to concrete, CMU and exterior drywall. It may be used as a part of tested NFPA 285 wall assemblies.

Since 1992, Rubber Polymer Company has delivered the highest quality products for the waterproofing industry. We developed our products to be environmentally friendly by providing asphalt free formulas that are easy to apply, create a membrane protective barrier and help us all to be environmentally responsible.

Consult Rubber Polymer Company for assistance in editing this section for your project. Visit www.rpcinfo.com to locate a sales manager in your region.

This section is based on the products of Rubber Polymer Company, Cumming, GA: (770) 410-1545; sales@rpcinfo.com.

Choose The Right Rubber Polymer Company Product for Your Application

To allow the regulation of temperature, humidity, filtration, and rate of air change, the interior atmospheres of buildings must first be enclosed and confined. To help accomplish this, *air barriers* are used to control air infiltration and exfiltration while *vapor barriers* manage the movement of water vapor.

Rub-R-Wall® Airtight Air and Vapor Barrier (AVB) System provides both an air and vapor barrier.

Rub-R-Wall® Airtight Vapor Permeable (VP) Air Barrier System creates a barrier to air movement but allows water vapor to pass freely.

The selection and placement of the correct barrier system must be carefully considered to prevent condensation within exterior wall assemblies. Before selecting the appropriate Rubber Polymer Company product, Architects may wish to apply a hygrothermic analysis program such as WUFI® to predict vapor diffusion and liquid transport based on specific building materials and project climate. For technical assistance and additional information contact Rubber Polymer Company.

SECTION 072726.1 – FLUID-APPLIED MEMBRANE AIR BARRIERS (AVB)

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Fluid-applied, rubber-polymer-based water-vapor-retarding air barrier membranes.
2. Accessories.

1.2 REFERENCES

Specifier: If retaining this optional Article, edit list to correspond to references retained after editing.

A. References, General: Versions of the following standards current as of the date of issue of the project or as required by applicable code apply to the Work of this Section.

B. ASTM International:

1. ASTM C836/C836M - Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course.
2. ASTM D95 - Standard Test Method for Water in Petroleum Products and Bituminous Materials by Distillation.
3. ASTM D412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers - Tension.
4. ASTM D751 - Standard Test Methods for Coated Fabrics.
5. ASTM D781 - Standard Test Methods for Puncture and Stiffness of Paperboard and Corrugated and Solid Fiberboard.
6. ASTM D882 - Standard Test Method for Tensile Properties of Thin Plastic Sheeting.
7. ASTM D903 - Standard Test Method for Peel or Stripping Strength of Adhesive Bonds.
8. ASTM D1970/D1970M - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection.
9. ASTM D4299-83 - Test Method for Effect of Bacterial Contamination on Performance of Adhesive Preparations and Adhesives Films.
10. ASTM E96/E96M - Standard Test Methods for Water Vapor Transmission of Materials.
11. ASTM E154/E154M - Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover.
12. ASTM E283/E283M - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Skylights, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
13. ASTM E 330/E330M - Standard Test Method for Structural Performance of Exterior Windows Doors Skylights and Curtain Walls by Uniform Static Air Pressure Difference.

C. National Fire Protection Association (NFPA):

1. NFPA 285 - Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components

1.3 SUBMITTALS

A. Product Data. Manufacturer's technical literature including standard application details for each product specified.

B. Manufacturer Instructions: Include manufacturer's written instructions for substrate preparation.

C. Shop Drawings: For conditions not addressed by manufacturer's standard details.

1. Show locations and extent of membranes and accessory materials.
2. Include details at substrate joints and cracks, penetrations, corners, and terminations.

1.4 QUALITY ASSURANCE

Specifier: Verify availability of approved installers in your area by contacting Rubber Polymer Company, (770) 410-1545.

A. Installer: Firm with record of successful installations on projects of similar scope and employing workers and supervisors trained and approved by manufacturer.

B. Mock-Ups: To set quality standards for materials and execution.

1. Install at location acceptable to Architect.
2. Size: [As shown in Drawings] [100 sq. ft. minimum].

C. Pre-Installation Meeting: Discuss handling and installation techniques, coordination of other work, protection, and scheduling of work adjacent to membranes.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to project site in original unopened packages with manufacturer’s labels intact.

B. Comply with manufacturer’s instructions for storage. Protect against damage.

C. Store materials above 40 deg. F.

1.6 FIELD CONDITIONS

A. Environmental Limitations: Apply membranes within the range of ambient and substrate temperatures recommended by manufacturer.

B. Do not apply to a damp or wet substrate or during snow, rain, fog, or mist.

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Manufacturer: Rubber Polymer Company, www.rpcinfo.com, sales@rpcinfo.com, (770) 410-1545.

B. Substitutions: [None acceptable] [In accordance with Instructions to Bidders and Division 01 General Requirements].

C. Source Limitations: Obtain membrane materials and accessories from single manufacturer.

2.2 REGULATORY REQUIREMENTS

A. Flame Propagation: Passes NFPA 285 testing as part of an approved assembly.

2.3 AIR AND VAPOR BARRIER MEMBRANE

A. Air and Vapor Barrier Membrane: Fluid-applied, seamless polymer membrane capable of preventing air and water infiltration exceeding limits specified.

1. Product: Rub-R-Wall® Airtight Air and Vapor Barrier (AVB) System by Rubber Polymer Company.
2. Air Leakage Rate: Maximum 0.0004 cfm/sq. ft. on block or drywall; ASTM E283/E283M.
3. Elongation: Greater than 1,800 percent; ASTM D412, modified.
4. Low-Temp Flexibility: Flexible to -20 deg. F; bend around 0.5 in. mandrel.
5. Abrasion Resistance: Less than 0.10 percent membrane loss; 700 psi on 0.06 by 0.06-inch point moving 1 inch per second.
6. Asphalt Content: 0.0 percent.
7. Block Peel Adhesion: 7.65 lbs./inch; ASTM D903.
8. Drywall Peel Adhesion: 12 lbs./inch; ASTM D903.
9. Crack Bridging: Exceeds 10 cycles to 1/8 inch at 15 deg. F; ASTM C836.
10. Water Vapor Permeance: Maximum 0.08 perms per dry 40-mil coating; ASTM E96/E96M Procedure B, Water Method.
11. Liquid Water Absorption: Less than 0.5 percent weight; ASTM D95.
12. Resistance to Bacteria: No attack; ASTM D4299-83 (modified).
13. Resistance to Gust Wind Load: Resist suction pressure of 62.8 lbs./sq. ft. for 10 seconds with no delamination and no increase in air leakage rate when tested at 1.6 lbs./sq. ft.; ASTM E330/E330M.
14. Resistance to Sustained Wind Load: Resists suction pressure wind load of 20.9 lbs./sq. ft. maintained for 1 hour with no de-lamination and no increase in air leakage rate when tested at 1.6 lbs./sq. ft.; ASTM E283/E283M.
15. Resistance to Chemical Attack: Unaffected by chemicals in concentrations typically found in soils.
16. Solvent Resistance: Exceeds performance of modified asphalts.
17. Life Expectancy: Exceeds 100 years; Arrhenius Projection Theory.

2.4 ACCESSORIES

A. Accessories, General: Provide substrate repair materials, transition strips, and other accessory materials compatible with membrane as required to complete the work and as recommended by membrane manufacturer.

B. Primer: Manufacturer’s standard liquid-applied factory-formulated primer.

1. Product: Rub-R-Wall® SA Primer by Rubber Polymer Company.

C. Substrate Repair Materials: Manufacturer's standard heavy-bodied rubber mastic; trowel grade.

1. Product: Rub-R-Wall® Mastic by Rubber Polymer Company.

D. Transition Strips: Self-adhering sheet membrane, 40 mil thickness.

1. Product: Rub-R-Wall® SA by Rubber Polymer Company.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examination: Verify conditions with installer present to confirm that substrates are sound, free of oil, dirt, or other contaminants and ready for installation of membrane.

1. Concrete Substrates: Verify that concrete has cured, and surface is clean and free of oil, form release agent, curing materials and other contaminates.
2. Masonry Joints: Verify that masonry joints are cut flush and completely filled with mortar.

B. Correct defects before proceeding.

3.2 SURFACE PREPARATION

A. Clean substrates of dirt, sand, soil, or any other materials that would prevent full adhesion of the membrane. The substrate must be dry and free of any visible water.

B. Patch all voids, cracks, and holes with mastic to provide a smooth surface for membrane installation.

C. Exterior Sheathing: Drive fasteners flush with wall panel surface. Tape joints with 2” wide exterior sheathing tape prior to spray application.

D. Detail around window, door openings, penetrations, and transitions between dissimilar materials. Provide minimum 6-inch transition strip to support a continuous membrane.

3.3 INSTALLATION

A. Comply with manufacturer's written installation instructions.

B. Prime all areas to receive membrane with primer/tack coat prior to membrane installation according to manufacturer’s instructions. Allow primer to dry.

C. Spray apply membrane material in multiple coats to achieve 60 to 80 mils wet thickness (30 to 40 mils dry). Verify thickness with wet mil gauge.

3.4 PROTECTION AND REPAIRS

A. Protect installed membrane from damage.

B. Repair all scratches and minor defects to provide a complete seamless air and vapor barrier membrane.

END OF SECTION