

SECTION 07263

Vapor Permeable Air Barrier System

Specifier Note: Rub-R-Wall® Airtight VP is a water-based vapor permeable air barrier membrane. It is formulated to allow water vapor to pass through it within the cavity wall. Airtight VP can be applied to most building materials used in wall systems.

PART 1: GENERAL

1.01 SECTION INCLUDES

- A. Materials and installation methods for a liquid applied vapor permeable air barrier system located in the cavity wall.
- B. Materials and installation to bridge and seal the following air leakage pathways and gaps:
 - 1. Connections of the walls to the roof air barrier.
 - 2. Connections of the walls to the foundation.
 - 3. Seismic and expansion joints.
 - 4. Openings and penetrations of window frames, store front, curtain wall.
 - 5. Barrier precast and other envelope systems.
 - 6. Door frames.
 - 7. Piping, conduit, duct and similar penetrations.
 - 8. Masonry ties, screws, bolts and similar penetrations.

1.02 RELATED SECTIONS

- A. 3300 – Cast-In-Place Concrete
- B. 4200 – Masonry Units
- C. 7700 – Roofing
- D. 7900 – Sealants
- E. 8100 – Door Frames
- F. 8500 – Window Frames
- G. 9200 – Gypsum Sheathing

1.03 REFERENCES

- A. ASTM D412: Tensile Strength and Elongation
- B. ASTM E96 (Method B): Water Vapor Permeance (perms)
- C. ASTM 2178: Air Permeance of Building Materials

1.04 SUBMITTALS

- A. Submit manufacturer's product data sheets, application guidelines, detailed drawings and samples prior to commencing the work.

1.05 QUALITY ASSURANCE

- A. The air barrier contractor shall be trained and certified by the manufacturer. Installation shall be performed in accordance to the manufacturer's guidelines.
- B. Obtain air barrier components from a single manufacturer if possible.
- C. Provide products which comply with all state and local regulations controlling the use of volatile organic compounds (VOC's).

1.06 DELIVERY, STORAGE and HANDLING

- A. Deliver materials to project site in original packages with seals unbroken and labeled by the manufacturer.
- B. Store materials above 40° F.

1.07 PROJECT CONDITIONS

- A. Apply air barrier within range of ambient substrate temperatures recommended by manufacturer. Do not apply air barrier to a damp or wet substrate, unless permitted by the manufacturer.
- B. Do not apply air barrier in snow, rain fog or mist.

PART 2: PRODUCTS

2.01 MANUFACTURER

- A. Rubber Polymer Corporation, 1135 West Portage Trail, Akron, Ohio 44313 (330) 945-7721, Fax (330) 945-9416, www.rpcinfo.com.

2.02 MATERIALS

- A. Single component, liquid applied vapor permeable air barrier membrane, VOC compliant:
 - 1. Rub-R-Wall Airtight VP by RPC, Inc. having an Air Leakage Rating (ASTM E2178) less than 0.004 cfm/ft², Water Vapor Permeance (ASTM E96) 12 perms and Elongation > 1,000 %.

2.03 AUXILIARY MATERIALS

- A. Transition Strip: Self adhering membrane having a thickness of 40 mils.
 - 1. Rub-R-Wall SA by RPC, Inc.
- B. Primer: Rub-R-Wall SA Primer by RPC, Inc.
- C. Concrete Repair: Rub-R-Wall Mastic by RPC, Inc.

PART 3: EXECUTION

3.01 EXAMINATION

- A. Examine substrates, areas and conditions under which vapor permeable air barrier system will be installed. Verify that surfaces and conditions are suitable prior too commencing work of this section. Do not proceed until unsatisfactory conditions have been corrected.

3.02 SURFACE PREPARATION

- A. Clean, prepare and treat substrate according to manufacturer's written instructions. Provide clean, dust-free and dry substrate for air barrier application.
- B. Patch all voids and holes with mastic.
- C. Ensure all joints (exterior sheathing) are taped with a 2" minimum mesh tape recommended by manufacturer.

3.03 INSTALLATION

- A. Transition joints: Seal with transition strip at beams, columns, changes in substrate materials, and similar joints or connections to provide continuity of air barrier assembly. Apply transition strips so that a minimum of 3" coverage is achieved over both substrates. Position strip over firm bearing to window frame perimeter and door frames. Lap transition strip from wall substrate with 3" of full contact over firm bearing to window or door frame with 1" of full contact.
- B. Spray apply material at a coverage rate of 25 to 30 ft²/gal providing a thickness of 60 to 80 mils in two coats.
- C. Inspect surface area with wet mil gauge to ensure proper thickness.
- D. Allow 24 hours for membrane to fully cure.