



Air / Vapor Barrier System

Vapor impermeable non-elastomeric

POLY WALL AIRLOK®

Note: Specification is prepared in accordance to CSI three part format. This specification must be adapted to suit the requirements of individual projects. Brackets [] require additional information from Specifier.

Section 07262 Fluid-Applied Air and Vapor Barrier

Part 1 – General

- 1.00 General Requirements
General conditions, Supplementary Conditions, Instructions to Bidders and Division One General Requirements shall govern this Section.
- 1.01 Description
Provide Labor, Materials and Equipment to complete work as shown on the Drawings according to the Specifications for the fluid-applied air and vapor impermeable barrier system.
- 1.02 Related Sections
 - A. Section [*Below grade waterproofing*]
 - B. Section [*masonry wall construction with tooled joints*]
 - C. Section [*wall panels*]
 - D. Section [*gypsum sheathing*]
 - E. Section [*plywood sheathing*]
 - F. Section [*roofing membrane*]
 - G. Section [*flashing and sealant*]
 - H. Section [*door and window frames*]
- 1.03 References
 - A. ASTM E2178 Standard Test Method for Air Permeance
 - B. ASTM E96 Water Vapor Transmission of Materials
 - C. ASTM D95 Water Absorption
 - D. ASTM D4541 Adhesion
 - E. ASTM C836 Low-Temperature Flexibility and Crack Bridging
 - F. ASTM E154 Resistance to Degradation
- 1.04 Submittals
Product data including Tech Data and laboratory testing information with system air leakage and vapor permeance rates meeting or exceeding code requirements.
- 1.05 Quality Assurance
 - A. Applicator specializes in performing work of this section and qualified by the manufacturer.
 - B. Application is to be completed in accordance to Manufacturer's Guide Specification.
- 1.06 Mock-Up
 - A. Construct a 6 ft by 6 ft mock-up to be built of specified substrate material, including a penetration and transition, to demonstrate materials interface and seal.
 - B. Applicator installs specified air barrier system on mock-up.
 - C. Allow 48 hours for inspection of mock-up air barrier system by design professional [*specify*] before proceeding with work.



- 1.07 Pre-Installation Conference
Convene conference 1 week prior to commencing application of air barrier system. All contractors responsible for related sections are to be present.
- 1.08 Delivery, Storage and Handling
A. Deliver manufacturer's materials to job site in sealed containers or packaging.
B. Store roll materials in original packaging out of direct sunlight.
C. Store water-based membrane materials above 40°F.
D. Store solvent-based membrane materials outside away from ignition sources.
E. Refer to MSDS for proper storage and handling.
- 1.09 Coordination
Coordinate work of other sections that reference this section.
- 1.10 Alternates
A. Acceptable alternates will be by written addendum.
B. Substitute materials not approved in writing prior to pre-installation conference shall not be permitted for use on this project.
- 1.11 Warranty
Concrete and CMU to be constructed without integral moisture repellent, and CMU shall be constructed with type M or type S mortar in accordance with ASTM C270.

PART 2 - Products

- 2.01 System Materials Manufacturer
A. Air Barrier System – membrane and components are to be obtained from the POLY WALL brand membrane manufacturer:
- Polyguard Products, Inc.
Ennis, TX 75119
(800) 846-3020
www.poly-wall.com
- 2.02 Membrane System (Basis-of-Design)
A. POLY WALL AIRLOK® Air/Vapor barrier: single-component, non-elastomeric, thermoplastic rubber, liquid, spray, rolled or brush, cold-applied to precast concrete, CMU or gypsum substrate.
1. Air permeability: 0.0026 CFM/ft² ASTM E2178-01 CMU/gypsum assembly.
 2. Vapor permeance: 0.45 perm ASTM E96 Method B
 3. Adhesion: 100+ PSI ASTM D4541
 4. Wet mil thickness: 40. Gardner wet mil gauge
 5. Dry mil average thickness: 14.
 6. Temperature (surface) range @ application: -20° F to 110° F
 7. Temperature (ambient) range @ application and cure: -20° F to 110° F
- B. POLY WALL Self-Adhering Flashing: modified bitumen membrane, cross-laminated polyethylene film applied to primed CMU, gypsum, wood or metal substrate.
1. Air permeability: 0.0007 CFM/ft² ASTM E2178; CMU/gypsum assembly
 2. Vapor permeance: 0.02 perm ASTM E96
 3. Adhesion: 10 PSI ASTM D1000
 4. Elongation: 500% ASTM D412
 5. Low Temperature Pliability: -25° F ASTM D146
- C. POLY WALL Hole Filler dispensed from caulking tube or POLY WALL Fiber Flash from a pail: fills mortar voids; provides termination and penetration sealant. Alternate material for POLY WALL Self-Adhering Flashing at gypsum sheathing seams.
1. Compatible with POLY WALL Air Barrier System
 2. Air permeability system: 0.0007 CFM/ft² ASTM E2178
 3. Elongation: 275% ASTM D412



4. Low Temperature Pliability: -75° F
5. UV Rating: 2000 hours no change ASTM G26

D. Masonry Flashings

Masonry flashings are specified in section []. Material selection and application shall be coordinated and compatible with air barrier system.

2.03 Primer

- A. AIRLOK® serves as the primer for the POLY WALL Self-Adhering Membrane. No other primer is necessary.

2.04 Insulation Adhesive (when specified)

- A. Quick Grip industrial-grade aerosolized adhesive applied directly to dried AIRLOK® or as primer for flashing material in cold temperatures.
1. Compatible with AIRLOK® System
 2. Adheres to: air barrier; board insulations; POLY WALL Self-Adhering Flashing; thru-wall flashings; and other substrates.
 3. Can be applied in temperatures from 0° F to 120° F.
 4. Dry time 1 -10 minutes depending on surface and ambient temperature.

Part 3 - Execution

3.01 Examination

- A. All surfaces to be treated must be sound, dry, clean and free of dirt, excess mortar, or other contaminants. Masonry substrate to have tooled mortar joints.
- B. Cut outs and breakouts for support columns and beams are to be filled and made flush with the substrate by others prior to commencing work.
- C. Masonry and new concrete shall have been cured a minimum of 3 days and must be dry at time of application.
- D. Design Professional to verify substrate and conditions are acceptable to commence work within this section.

3.02 Surface Preparation

- A. Surface must be clean and dry: free of mortar or gypsum smears; free of ice, frost or excess moisture.
- B. Poured concrete ties inside and out must be knocked off and filled flush.
- C. Masonry wall must be uncharged.
- D. Gypsum sheathing voids are to be filled and made flush with substrate.
- E. Open joints are to be filled with foam or POLY WALL Hole Filler. Tight joints can be coated without additional preparation.

3.03 Installation of air vapor barrier system

Install all materials following manufacturer's guide specifications.

General: Membrane detailing after fluid applied Application of AIRLOK® to substrate.

- A. Apply AIRLOK® evenly to substrate using airless spray equipment, brush or roll checking wet mil immediately for proper application thickness: 40 wet mils.
- B. Spray wrap rough openings as required.
- C. Apply extra material at anchor ties and penetrations.
- D. Allow application to dry for 12 hours and inspect for continuous coverage. If necessary, apply additional material as needed to provide a continuous coating then allow drying for 12 hours.
- E. Commence detailing. In stall specified caulking. As an alternate, Apply POLY WALL Self-Adhering Flashing strips to control joints, transition joints, window and door openings as specified. Overlap end and side laps 2 inches. Roll all flashing to ensure seal. Seal top edge of flashing strips with POLY WALL Hole Filler caulk or POLY WALL Fiber Flash. Trowel to feathered edge as needed. Or install specified caulk.
- F. Minor voids are to be filled and sealed with hydraulic cement and made flush before installing AIRLOK®.

3.04 Field Quality Control

Measure application thickness with wet mil gauge. Check fresh application immediately.

3.05 Protection

For 24 hours after installation, protect completed membrane system against water filling block cores. Protect finished air barrier system from adjacent work.

