

## SECTION 07 65 19

### WEATHER BARRIER

#### PART 1 GENERAL

##### 1.01 RELATED DOCUMENTS

- A. Section includes product specification of the following:
  - 1. Fluid applied vapor impermeable weather barrier on masonry back-up. Provide all auxiliary materials including liquid membrane for detailing wall primer, flexible membrane, joint reinforcing strips, transition membranes, substrate patching membrane, and foam sealant for a complete installation.
  - 2. Fluid applied vapor permeable weather barrier on exterior sheathing behind other exterior finishes. Provide all auxiliary materials including liquid membrane for detailing wall primer, flexible membrane, joint reinforcing strips, transition membranes, substrate patching membrane, and foam sealant for a complete installation.
- B. Installation of flashings installed in other sections:
  - 1. Concrete Back-up – Section 03 30 00.
  - 2. Unit Masonry – Section 04 20 00.
  - 3. Gypsum Sheathing – Section 06 16 43.

##### 1.02 PERFORMANCE REQUIREMENTS

- A. General: Weather barrier shall be capable of performing as a continuous vapor-impermeable weather barrier and as a liquid-water drainage plane flashed to discharge to the exterior incidental condensation or water penetration. Weather barrier assemblies shall be capable of accommodating substrate movement and of sealing substrate expansion and control joints, construction material changes, and transitions at perimeter conditions without deterioration and air leakage exceeding specified limits.

##### 1.03 REFERENCES

- A. The following standards and publications are applicable to the extent referenced in the text. The most recent version of these standards is implied unless otherwise stated.
- B. American Society for Testing and Materials (ASTM)
  - 1. C836 Standard Specification for High Solids, Cold Liquid-Applied Elastomeric.
  - 2. D4541 Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers.
  - 3. E96 Test Methods for Water Vapor Transmission of Materials
  - 4. E2178 Standard Test Method for Air Permeance of Building Materials
  - 5. D95 Water absorption
  - 6. E154 Resistance to degradation
  - 7. D412 Standard Test Methods for Rubber Properties in Tension.

#### PART 2 PRODUCTS

##### 2.01 MATERIALS

- A. Products by Polyguard Products ([www.polyguardproducts.com](http://www.polyguardproducts.com)) are specified.
  - 1. Similar products by the following manufacturers are acceptable:
    - a. TK Products “Airmax” ([www.tkproducts.com](http://www.tkproducts.com))
    - b. BASF – “Enershield” ([www.wallsystems.basf.com](http://www.wallsystems.basf.com))

**2.02 WEATHER BARRIER (VAPOR-IMPERMEABLE)**

- A. Fluid-Applied, Fully-Adhered, Vapor-Impermeable Membrane Air Barrier, Basis of Design: Subject to compliance with requirements, provide the following:
  - 1. Single component, elastomeric, thermoplastic rubber: Polyguard AirLok Flex
- B. Physical and Performance Properties: Provide products with the following minimum properties:

Property	Test Method	Typical Value
Cured Film Thickness	ASTM D 3767 Method A	0.010 in. nominal
Solids Content	ASTM D 1644	100%
Air Permeance at 75Pa (0.3 in. water) Differential Pressure	ASTM E 2178	<0.0007 cfm/ft <sup>2</sup>
Assembly Air Permeance at 75Pa (0.3 in. water) Differential Pressure	ASTM E 2357	0.0008 cfm/ft <sup>2</sup>
Water Vapor Permeance	ASTM E 96, Method BW	Less than 0.1 Perms
Pull Adhesion	ASTM D 4541	>100 psi
Elongation	ASTM D 412	500% minimum
Pliability, 180° Bend over 1 in. Mandrel at -23°F	ASTM D 1970	Unaffected
Low Temperature Flexibility and Crack Bridging 1/8 in. crack cycling at -15°F	ASTM C836	Pass
Extensibility over 1/4 in. crack after heat aging	ASTM C836	Pass

**2.03 WEATHER BARRIER (VAPOR-PERMEABLE)**

- A. Fluid-Applied, Fully-Adhered, Vapor-Permeable Membrane Air Barrier, Basis of Design: Subject to compliance with requirements, provide the following:
  - 1. Single Component, Elastomeric, Rubber: Polyguard AirLok Flex VP
- B. Physical and Performance Properties: Provide products with the following minimum properties:

Property	Test Method	Typical Value
Air Permeance	ASTM E 2178-01	≤0.0037 cfm/ft <sup>2</sup> on sheathing @ 70 SF/gal
Membrane Vapor Permeance	ASTM E 96	7.6 Perms
Elongation	ASTM D 412	500% minimum

**2.04 AUXILIARY MATERIALS**

- A. General: Auxiliary materials recommended by air barrier manufacturer for intended use and compatible with air barrier membrane. Liquid-type auxiliary materials shall comply with VOC limits of authorities having jurisdiction.
- B. Liquid Membrane for substrate patching, details and terminations.
  - 1. Poly-Wall Hole Filler or Poly-Wall Fiber Flash:
    - a. Air permeability system: 0.0007 cfm/ft<sup>2</sup> ASTM E2178
    - b. Elongation: 275% ASTM D 412
    - c. Low Temperature Pliability: -75°F.
    - d. UV Rating: 2000 hours no change ASTM G 26.
- C. Transition Membrane: Poly-Wall Self-Adhering Flashing. A self-adhesive polymer-modified asphalt laminated to a high-density polyethylene film conforming with the following:
  - 1. Water Vapor Transmission: ASTM E96, Method B: .05 grains/sq.ft./hr./in.
  - 2. Air Permeance: ASTM D 2178-01: .0014 cfm/ft<sup>2</sup>

3. Puncture Resistance: ASTM E154: 178 N (40 lbs.) min.
  4. Peel and Lap Adhesion ASTM D 1000 8lbs/in width.
  5. Tensile Strength: ASTM D412, Die C Modified: min 325 psi
  6. Elongation, Ultimate Failure of Rubberized Asphalt: ASTM D412, 600%.
- D. Transition Membrane Primer: Poly-Wall Commercial Stretch and Poly-Wall AirLok Flex.

**PART 3 EXECUTION – No Requirements**

**END OF SECTION 07 65 19**