



FACADESXi

WaterShield Assembly

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FACADESXi WATERSHIELD ASSEMBLY

CSI SECTION 07 25 00 Weather Barriers 07 27 26 Fluid-Applied Membrane Air Barriers

This specification is to assist in correctly specifying the FACADESXi WaterShield Assembly, products, and installation and should be used in conjunction with Assembly Details. The system includes Xi-WaterShield, vertical ribbons of adhesive, insulation board, reinforced polymer-modified base coat, optional primer, and acrylic finish.

The specifier MUST edit these specifications to fit the needs of each specific project and the design is the responsibility of the specifier to determine if a product is applicable. These specifications cover multiple options within the System. For assistance, contact your FacadesXi Technical Department.

FACADESXi Wall systems provide these specifications, Typical Assembly details, and product data sheets for use in the design of the project.

FACADESXi is not liable for any errors or omissions in design details, structure capability, attachment details, or shop drawings. See Full Disclaimer at end of the document.

Although not a part of the Xterior Insulation System, flashings and sealants are elements of all exterior wall assemblies and must be designed, integrated, and installed, in conjunction with the wall cladding to create an air and water-resistant assembly and a means for drainage of incidental moisture from within the system. All components within the assembly must be compatible with the EIF System materials.

Construction Types: I-V, Fire Rated, and Non-combustible, Commercial and Residential Non-combustible and Fire Rated construction: ensure that the system chosen has been tested and is compliant with the necessary tests for these assemblies

LIMITATIONS

- Watershield is UV Stable, however, it should not be left exposed for more than 6 months. The surface must be examined before installing any cladding and when using EIFS, if exposed for more than 30 days, the surface must be cleaned and dry.
- Ambient/surface temperature must remain above 40°F (4°C) during and until materials are dry, usually 24 hours.
- Select a finish coat color in relation to the overall project location in mind. It is generally recommended to select a finish color with a light reflectance value (LRV) of 20 percent or higher due to the EPS service temperature limitation of approximately 160 degrees F (71 degrees C).
- For use on vertical above-grade walls only or within the allowable slope and waterproof base coats.
- Where snow may occur, increase the distance required between grade and the stucco and increase the slope requirement of the Foam Shapes
- Maintenance is Required with periodic cleaning, and/or recoating to enhance the appearance.
- Always follow product data sheet information.

Notes to Specifier are in White Italics and should be deleted before publishing.

[Select or Delete] Assembly Options. Choose one and delete the remaining options. Delete the brackets and un-bold the selected option(s).

<Text> Include the appropriate information.

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Materials and installation of WaterShield Assembly including Xi-WaterShield Water & Air Barrier, and accessory products.

Xi-WaterShield Water Barrier also qualifies as an air barrier when installed per the instructions and continuously over the project.

1.2 RELATED SECTIONS

- A. Section 03 30 00 Cast in Place Concrete
- B. Section 04 20 00 Unit Masonry
- D. Section 06 16 00 Sheathing
- B. Section 07 27 00 Air barriers
- C. Section 07 60 00 Flashing and Sheet Metal
- D. Section 07 90 00 Joint Protection
- E. Section 08 40 00 Entrances, storefronts, curtain walls
- F. Section 08 50 00 Windows
- G. Section 09 21 16 Gypsum Board Assemblies

1.3 REFERENCES

A. ASTM

- 1. C1177 Specification for Glass Mat Gypsum for Use as Sheathing
- 2. E84 Test Method for Surface Burning Characteristics of Building Material
- 3. E 96 Test Methods for Water Vapor Transmission of Materials
- 4. E 331 Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference
- 5. E1233 Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Cyclic Air Pressure Differential
- 6. E 2178 Test Method for Air Permeance of Building Materials
- 7. E 2357 Standard Test Method for Determining Air Leakage of Air Barrier Assemblies
- 8. E 2485 Standard Test Method for Freeze/Thaw Resistance of Exterior Insulation and Finish Systems (EIFS) and Water Resistive Barrier Coatings
- 9. E 2570 Test Method for Water-Resistive (WRB) Coatings used Under Exterior Insulation and Finish Systems (EIFS) or EIFS with Drainage

B. APA

- 1. Voluntary Product Standard: PS 1, Structural Plywood
- 2. Voluntary Product Standard: PS 2, Performance Standard for Wood-Based Wood structural panels.

C. NFPA

- 1. NFPA285 Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components
- 2. NFPA 268 Standard Test Method for Determining Ignitability of Exterior Wall Assemblies Using a Radiant Heat Energy Source

D. International Code Council

- 1. AC 212 Acceptance Criteria for Water Resistive Coatings used as water-resistive barriers over exterior sheathing

1.4 SUBMITTALS

- A. Submit under the provisions of Section [01 33 00]
- B. Product data on assembly materials, including specifications, assembly details, installation, and warranty

information

- C. Shop drawings to be provided by the subcontractor.
- D. Samples: two 6-inch by 6-inch finish coat samples per designers' request
- E. Applicator's certificate

1.5 DESIGN CRITERIA

A. Moisture/air control

1. The exterior wall must be designed and installed to allow moisture to drain to the exterior in accordance with the International Building codes.
2. Do not use vapor retarders on the interior side of the wall. Using vapor retarders on the exterior is the decision of the designer.
3. Design flashing to direct water to the exterior, including above window and door heads, window, and door sills, at roof/ wall intersections, decks, Floor lines, high to low wall intersections, at the base of the wall, and where required by code and in the project details.
4. When required design air leakage continuity transitions to other wall components, at all penetrations and wall connections.

1.6 QUALITY ASSURANCE

A. Manufacturer

1. All system components must be manufactured by or approved by FXI.

B. Applicator

1. Listed by FACADESXi Wall Systems. Licensed, insured, and engaged in the application of water resistive barriers for a minimum of 3 years and have completed 3 projects within the same scope of work.
2. Employ mechanics who are skilled and experienced in water resistive barriers applications and knowledgeable in the FACADESXi WaterShield Assembly.

- C. Inspections: FACADESXi is not responsible for Third-Party inspections, if inspections are required, the owner must engage a third-party inspector.

1.7 PERFORMANCE CRITERIA

TEST	METHOD	CRITERIA	RESULTS
Water-resistive barrier coatings used under EIFS and All Claddings	ASTM E2570	International Building Code International Residential Code	Meets all performance requirements
Air Permeance	ASTM E 2178	< 0.02 L/s•m ² •s @ 75 Pa (((< 0.04 cfm/ft ² @ 1.57 psf	Pass
Air Barrier Assembly	ASTM E 2357	< 0.2 L/s•m ² @ 75 Pa (< 0.04 cfm/ft ² @ 1.57 psf	Pass
Freeze-Thaw	ASTM E2485 (Method B)	ASTM E2570/AC 212 No sign of deleterious effects after 10 cycles	Pass - Tested over exterior gypsum sheathing, ASTM C1177 glass-mat sheathing, cement board, OSB, plywood
Surface Burning	ASTM E84	ASTM E2570/AC 212 Flame Spread < 25 Smoke Development < 450	Meets Class A: Flame spread =15 Smoke developed = 95
Tensile Bond	ASTM C297	ASTM E2570/AC 212 Minimum 103 kPa (15 psi)	Pass - Tested over exterior gypsum sheathing, ASTM C1177 glass-mat sheathing, cement board, OSB, plywood, CMU; PVC and galvanized

			flashing
Water Resistance	ASTM D2247	ASTM E2570/AC 212 No deleterious effects after a 14-day exposure	Pass - Tested over exterior gypsum sheathing, ASTM C1177 glass-mat sheathing, cement board, OSB, plywood
Water Vapor Transmission	ASTM E96	ASTM E2570/AC 212, Report Value	Permeable
Weathering: UV Light Exposure, Accelerated Aging, Hydrostatic Pressure Test	ICC-ES AC-212 AATCC 127	ASTM E2570/AC 212 No cracking or bond failure to the substrate No water penetration after 21.7 in (550 mm) water for 5 hours	Pass
Water Penetration	ASTM E 331	No water penetration after 15 minutes @ 137 Pa (2.86 psf)	Pass, 6.24, etc.
Water Resistance	ASTM D 2247	No deleterious effects after 14 days of exposure	Pass

*No cracking, checking, rusting, crazing, erosion, blistering, peeling, or delamination when viewed under 5x magnification

* AC212 – Acceptance Criteria for Water-Resistive Coatings Used as Water-Resistive Barriers over Exterior Sheathing, also referred to as ASTM E 2570

1.8 DELIVERY/STORAGE/HANDLING

- A. Deliver, store, and handle products per product data and under Section []
- B. Deliver FACADESXi materials in original unopened packages with labels intact.
- C. Protect FACADESXi materials during transportation and installation to avoid physical damage.
- D. Store FACADESXi materials in a cool, dry place, out of direct sunlight, protect from freezing.

1.9 PROJECT CONDITIONS

- A. Ambient and surface temperature must be above 40 degrees F during application and for 24 hours after application of FACADESXi materials.
- B. Provide supplementary heat /shading for installation, if necessary, to maintain a minimum or maximum allowable temperatures.
- C. Prevent uneven or excessive evaporation of moisture from base coat during dry, hot weather. Do not install coatings in temperatures above 100 degrees F.
- D. Protect surrounding areas and adjacent surfaces from the application of materials.

1.10 COORDINATION AND SCHEDULING

- A. A preconstruction meeting is recommended and should include the Manufacturer, the applicator, the owner, coordinating material representative, and [consultants] before the installation of the materials.
- B. Air and water seals between adjoining materials and FXI materials should be designed to maintain the continuity of the assembly.
- C. Coordinate and schedule installation of FACADESXi with related work; windows, doors, flashing, AC units, foundation waterproofing, roofing, trim, flashing, and joint sealers; to prevent water infiltration behind and the drainage of the system.
- D. Protect rough openings before installing windows, doors, and other penetrations are installed and coordinate the installation so that the water and air barrier remain continuous.
- E. Protect sheathing per industry and/or sheathing manufacturer's instructions.
- F. Attach other small penetrations through the system per application details and provide a watertight seal.
- G. Install window/door and large penetration head flashing immediately after windows and doors are installed.
- H. Install penetrations when possible, such as ducts and pipes, and seal at the water barrier layer to create a

continuous water and air barrier

1.11 WARRANTY

- A. Provide FACADESXi Wall systems warranty under project provisions.
- B. Workmanship is not included in the warranty and if required must be provided by the installer.
- C. See FACADESXi Warranty Technical Document for specific warranties available.

PART 2 - PRODUCTS

2.1 MANUFACTURER

FACADESXi, 15262 Capital Port, San Antonio TX 78249 | [972.834.9070](tel:972.834.9070) / [1-833-899-0787](tel:1-833-899-0787) | www.FACADESXi.com

2.2 SYSTEM/MATERIALS

- A. **System: WaterShield Assembly**
- B. **Materials**
 - 1. All components of the system; including but not limited to: Water /Air barrier coating and accessories, must be supplied by FacadesXi or their authorized distributors.
 - 2. WaterShield – Liquid applied air/ water barrier
 - 3. WaterShield Joint Mesh– Reinforcement for Watershield over joints and gaps
 - 4. WaterShield - SAF Self Adhered Flashing peel and stick WaterShield Flashing Tape: Primer-Free peel and stick tape designed for use with stucco and EIFS systems The polyester fabric top layer provides an excellent bonding surface for cementitious and synthetic stucco coatings.
 - 5. Xi-FlashFill: Gunnable or Trowelable waterproofing Sealant applied at 12 mils.
- C. **Accessory Materials**
 - 1. Backer Rod and Joint Sealants: Closed-cell back rod and sealant from the acceptable sealant list.

System materials may not be interchanged with other manufacturers materials unless explicitly allowed by FACADESXi. The System is tested over specific water barrier coatings and is not allowed to be installed over other water barrier coatings. The use of other materials will void the FACADESXi Warranty. The integration with other claddings and water barriers must be decided before installation. The WaterShield Material may be used behind any other cladding without disrupting the water/air barrier.

PART 3 - INSTALLATION/EXECUTION

3.1 EXAMINATION

- A. Unsatisfactory conditions shall be corrected before the installation of any FACADESXi System materials. The contractor must notify the general contractor and/or owner and /or architect of all discrepancies. Do not proceed with the water/air barrier until conditions are resolved.
- B. **Verify the following:**
 - 1. Substrate is allowable and code compliant and installed per the manufacturer or appropriate product installation instructions.
 - 2. Verify the deflection of the substrate does not exceed 1/240 times the span.
 - 3. Surfaces must be free of mildew, dirt, efflorescent, oils, damage deterioration, or any foreign materials.
 - 4. Verify substrate is flat within 1/4 in (6.4 mm) in an 8 ft (2.4 m).
 - 5. Surfaces must be free from excessive moisture; moisture content should be recorded before installation of the water barrier materials.
- C. **Substrate**
 - [½" minimum Exterior Glass mat gypsum Sheathing complying with ASTM C1177]
 - [½" minimum Exterior fiber reinforced cement sheathing complying with ASTM C1325]
 - [½" minimum APA Exposure 1 or exterior plywood (Grade C/D or better)]
 - [½" minimum APA Exposure I OSB] [Gypsum sheathing (ASTM C79/C1396)]

[Other substrates, or Painted as approved by FACADESXi]

3.2 PREPARATION

A. Framing, Sheathing, Substrate

1. Sheathing must be installed per the applicable manufacturer /industry standards.
2. Wood sheathing must be gapped per the APA
2. Screw / Nail heads must be flush with the face of the sheathing and not overdriven

B. Flashing

1. All rough openings, penetrations, balconies, and decks are flashed following the project details and in a matter to prevent water penetration. Head, jamb, and sills of all openings must be flashed in conjunction with the water /air barrier per project details to create positive drainage.
2. Roof Flashing and Kick out Flashing must be installed per project design

Specifiers Note: Delete Products not specified in Section 2.0 Follow EIFS Installation Handbook for full application instructions.

3.3 APPLICATION

A. Mixing

1. Mix each product per the most current product datasheet.
2. No additives are permitted to any components unless specifically approved by FXI.

B. Application

1. Coordinate installation with all flashing, terminations, roofing, accessories, windows, other adjacent water barrier materials to provide an air/watertight assembly.
2. Install WaterShield and WaterShield accessory products per the WaterShield Product datasheet and system details.
3. Treat all Gaps, joints, corners, and dissimilar transitions with the appropriate Joint treatments to ensure a water and airtight assembly.
4. After Flashings, window fins, and penetrations are installed, install Watershield transition treatment per project details to create a waterproof connection and positive drainage.
5. Watershield Field Application: Install per the WaterShield Product datasheet and system details.
6. The wet mil will be approximately 10-12 wet mils.
 - a. OSB/Plywood: Plywood/OSB surface may create imperfections in the WaterShield. The WaterShield must be reapplied in any areas that are not completely covered.
 - b. CMU: CMU will require more Watershield than other substrates or it may be skimmed out with Xi-Base or Xi-VersaBase.
 - c. OSB and CMU: If necessary, apply 2 coats, allowing the first coat to fully dry. It may require back rolling with a $\frac{3}{4}$ " nap roller for complete coverage without pinholes.
7. Transition between Water Resistive Barriers: When there is a transition between WaterShield and Non-FacadesXi materials, consult FacadesXi Technical Services. The adhesion between products is not always known and testing may be necessary.
8. Seal all penetrations at the WaterShield surface.
9. Wherever stater track or flashing exists a layer of WaterShield Joint tape embedded in Xi- WaterShield should lap equally over the legs to create a continuous water barrier layer with positive drainage

3.4 QUALITY CONTROL

- A. The contractor is responsible for the proper application of the FACADESXi wall System products.
- B. FacadesXi is not responsible for on-site inspections. If inspections are required, the owner must engage a third-party inspector

3.5 CLEANING

- A. Clean under the provisions of Section [01 74 00]
- B. All excess materials must be removed from the project site per the project Provisions
- C. Clean adjacent surfaces of excess materials or debris.

3.6 PROTECTION

- A. Protect installed materials under provisions of Section [01 74 00]

END OF SECTION

Disclaimer prepared in good faith based on the information available at the time of publication.

All information contained in this specification conforms to standard detail and product recommendations for the installation of FACADESXi products and should be used for guidance only. There may be additional information and/or equivalent means of installation that are not referenced in FACADESXi's specifications. All FACADESXi products shall be installed per FACADESXi product datasheets and all applicable building codes and industry-standard practices.

The design, engineering, and final details incorporating any FACADESXi product are the sole responsibility of the project design professional. FACADESXi is not responsible for determining the acceptability and/or applicability of any FACADESXi product for any specific project or condition. FACADESXi disclaims all liability for improper installation, workmanship, or design by a third party. EXCEPT FOR ANY EXPRESS REPRESENTATIONS AND WARRANTIES BY FACADESXi, ALL IMPLIED WARRANTIES OF ANY KIND, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COMPLIANCE WITH LAWS OR GOVERNMENT RULES OR REGULATIONS APPLICABLE TO THE PROJECT, ARE HEREBY DISCLAIMED.

FACADESXi's website should always be consulted for the latest version of any details, specifications, and/or product information. Contact FACADESXi for any technical assistance.

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