

SECTION 07240

EXTERIOR INSULATION AND FINISH SYSTEM

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes:

1. Field constructed exterior insulation and finish systems adhered to substrates indicated below.
2. PB system consists of adhesive-base coat, insulation board, reinforcing fabric, and soft base and acrylic finish coats recommended by wall system manufacturer adhered to rigid substrate.

1.02 QUALITY ASSURANCE

A. Qualifications, additional:

1. Manufacturer, for other than named manufacturers: Minimum ten years experience in manufacturing products in United States of America for use in the United States of America.
2. Installer:
 - a. Certified by EIFS manufacturer; include original certification date, recertification dates, as applicable, and names of individuals trained from installer's staff.
 - b. Completed five Projects, minimum, of comparable magnitude using specified system in last three years except for water managed system.
 - c. Submit project reference list for review and verification; non-verifiable projects will be cause for installer rejection.
 - d. Indicate, in writing, trained individuals on staff who will be on-site daily during Project progress.

B. Regulatory requirements; indicate compliance with UBC Standard 26-4 demonstrated by either paragraph below:

1. ASTM E108-83, modified.
2. ASTM E84-80 fire testing apparatus in combination with full scale multi-story fire evaluation.

C. Mock-ups:

1. Prepare full story height by 10'-0" minimum width on-site mock-up of installed items; location designated by Architect, for Architect's approval of panel construction, finish, color, and sealant installation. Include one detail for each penetration type, build-ups, control joints, flashing details, and terminations.
2. Obtain Architect's mock-up approval before beginning final installation.
3. In-place panels final acceptance will be based on sample panels appearance.
4. Mock-up may be accepted as part of finished installation at Architect's option.
5. Notify Architect in writing when mock-ups will be ready for review.

- D. Preinstallation conference:
1. Prior to wall system installation, preinstallation conference will be held to review work to be accomplished.
 2. Attenders:
 - a. Contractor.
 - b. EIFS manufacturer's representative.
 - c. Subcontractors: EIFS, window, door, waterproofing, flashing and sheet metal, and other subcontractors concerned with EIFS and adjacent construction installation.
 3. Notify Architect at least three days prior to meeting.
 4. Verify required submittals have been reviewed; verify acceptance of sample panel and mock-up.
 5. EIFS manufacturer and EIFS installer: Review and approve changes to previously reviewed penetration details.
 6. Record minutes of meeting; distribute to attending parties and Architect within seven working days of meeting and beginning work.

1.03 WARRANTY

- A. Special warranty:
1. Manufacturer: Warrant system for five year period against materials defects and water intrusion; include labor and materials required for repairs or remedial work at no additional cost.
 2. Installation:
 - a. Co-warrant installation with system manufacturer for two year period including water intrusion; include labor and materials required for repairs or remedial work at no additional cost.
 - b. Co-warranty sealant installation for same period indicated in Joint Sealants Section, WARRANTY Article.
 3. Begin warranties at Date of Substantial Completion.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Acceptable manufacturers:
1. Products specified as standard of quality are manufactured by Dryvit System, Inc.
 2. Products of manufacturers listed below meeting indicated standards and specified manufacturer's product data characteristics, except as modified below, are acceptable for use, subject to approval of product list and samples.
 - a. Finestone, Simplex Products Division.
 - b. STO Finish Systems, Division.
 - c. Senergy, Inc.

2.02 COMPONENTS

- A. Sheathing for EIFS: Section 07200.

- B. PB System; soft coat exterior insulation and finish system materials for water management system:
1. Moisture protective barrier; product quality standard: Dryvit System, Inc.; Backstop, 100% acrylic type high performance membrane.
 2. Adhesive; product quality standard: Dryvit System, Inc.; Primus, 100% acrylic type compatible with gypsum sheathing, insulation board, and reinforcing fabric.
 3. Portland cement, if required by listed manufacturers to meet system requirements: ASTM C150-96a, Type I.
 4. EPS insulation board:
 - a. Material:
 - 1) Field areas: ASTM C578-87a, Type VIII; grooved in accord with selected manufacturer's requirements.
 - 2) Detailed areas, include shaped cornices, complex trim and similar type areas: ASTM C578-87a, Type X.
 - b. Density:
 - 1) Field areas: 1.15 PCF, minimum.
 - 2) Detailed areas, include shaped cornices, complex trim and similar type areas: 1.35 PCF, minimum.
 - c. Thickness: 1", minimum at any point including rustications; required thicknesses and detailing indicated; exceeding code restricted thicknesses for fuel contribution of materials is prohibited.
 - d. Mark each board indicating code compliance; indicate information required by model code or other applicable codes in appropriate model code recognition and system manufacturer's hallmark.
 - e. "R" Factor @ 75°F.: 3.80 per inch thickness for board aged minimum of seven weeks.
 - f. Residual pentane: Less than 0.5%.
 5. Reinforcing fabric:
 - a. Type: Balanced open weave mesh glass fiber fabric treated for compatibility with other system materials.
 - b. Weights:
 - 1) Standard duty; product quality standard: Dryvit System, Inc.; Dryvit Standard Mesh.
 - 2) Intermediate duty; product quality standard: Dryvit System, Inc.; Dryvit Intermediate Mesh.
 - 3) Heavy duty; product quality standard: Dryvit System, Inc.; Panzer Mesh.
 6. Other materials:
 - a. Flashing tape: Manufacturer's recommended highly adhesive rubberized asphalt compound bonded completely and integrally to high density cross laminated polyethylene film.
 - b. Vent assembly: Manufacturer's standard aggregate matrix material encased in EPS providing positive drainage capabilities.
 - c. Closure blocks and starter strips: Solid EPS blocks; 6" minimum height.
 - d. Vent tracks and "J" tracks at heads of penetrations and base of system above starter strip: Manufacturer's standard PVC engineered for required location; slotted for system base.
 7. Base coat; product quality standard: Dryvit System, Inc.; Primus, compatible with insulation board and reinforcing fabric.

8. Primers: May be required by system manufacturer as adhesion intermediaries.
9. Finish coat:
 - a. Type: Factory mixed integrally colored 100% acrylic finish system modified for texture product standard of quality indicated below.
 - b. Texture; product quality standard: Dryvit System, Inc.; Trowelable 100% Acrylic Finish Sandblast®; final texture approved by Architect under SUBMITTALS Article.
 - c. Colors: Refer to elevations
10. Water: Clean and potable.
11. Sealant: Two part polyurethane or one part silicone for working and control joints; listed and approved by system manufacturer for selected system; specified and installed in Joint Sealants Section.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Protection:
 1. Protect surrounding areas and surfaces during wall system application.
 2. Protect system when work ceases or when area is completed to prohibit water infiltration behind system.
 3. Immediately cover tops of walls with final trim or temporarily protect to prevent water infiltration behind system.
 4. Coordinate cap flashing installation as soon as possible after finish coat installation.
- B. Protect exposed edges of system from weather with temporary polyethylene sheet covering at end of day's work. Secure covering in place.
- C. Install sealants in timely manner.

3.02 INSTALLATION

- A. Sheathing:
 1. Specified in Rough Carpentry Section.
 2. Correct unsatisfactory conditions before system application.
 3. Perform strictly in accord with selected system manufacturer's current published instructions.
 4. Mixing: Label materials requiring preparation in field with complete mixing instructions; follow instructions.
 5. Adhesive/insulation method: Apply in accord with EIFS manufacturer's installation instructions.
63. Standard reinforcing fabric and base coat:
 - a. Rasp flush EPS irregularities greater than 1/16" prior to base coat/reinforcing fabric application.
 - b. Apply base coat to entire EPS surface to 1/16" thickness DFT, minimum, in accord with ASTM PS49-96.

- c. Fully embed reinforcing fabric in wet base coat; trowel from center to edge of reinforcing fabric to avoid wrinkles. Install continuous reinforcing fabric at corners; lap minimum 2-1/2" at mesh joints.
- 74. Impact layers:
 - a. Higher impact performance may be accomplished by:
 - 1) Multiple layers of reinforcing fabric.
 - 2) Incorporating higher impact resistant fabrics.
 - 3) Using heavy duty mesh.
 - b. Install impact layer or layers at areas within 9'-0" above any exterior grade line or elevated platform. Install in accord with system manufacturer's installation instructions.
- 8. Finish application:
 - a. Allow base coat/reinforcing fabric application to set prior to finish coat application.
 - b. Apply finish coat to dry base coat; maintain wet edge at all times to obtain uniform appearance.
 - c. Finish coat thickness: Required by system manufacturer's installation instructions to obtain desired texture.
 - d. Match approved sample for finish texture and color.
 - e. Utilize same equipment and techniques to achieve finish uniformity and texture as sample.
- 9. Completed installation: Uniform and true to line and plane within 1/8" in 12'-0"; finished surfaces free of projections, irregularities, or telegraphing substrate.
- 10. Perform weathering sealant installation at control and expansion joints, door and window perimeters, and other EIFS penetrations under Joint Sealants Section only. Give notice for sealant application to prevent water intrusion into system. Install temporary cover until sealant installation is complete.

3.03 FIELD QUALITY CONTROL

- A. Manufacturer's field service:
 - 1. Provide services of qualified manufacturer's representative for weekly site visits during EIFS materials application.
 - 2. Verify applicator's installation methods are in accord with EIFS manufacturer's criteria.

3.04 CLEANING AND PROTECTION

- A. Remove stains or materials having adverse effect on finishes.
 - 1. Final clean not more than 48 hours prior to Date of Substantial Completion.
 - 2. Repair damaged areas; match adjacent area finish exactly or entire section may be required to be refinished.

END OF SECTION 07240