

FEDDERLITE[®] PANEL SYSTEM[®]

Prefabricated, Lightweight, Outsulation[®] Exterior Wall
Panels with Integrated Reinforcing Channels



Fedderlite Panel System Specifications



INTRODUCTION

This document contains the Manufacturer's Standard Specification for the Fedderlite Panel System. These specifications follow the Construction Specification Institute's MasterFormat.

TAILORING THE DRYVIT MANUFACTURER'S SPECIFICATIONS TO YOUR PROJECT

These specifications cover all the common ways of using the Fedderlite Panel System. Most projects use only a few of the possible combinations of these materials and methods. To tailor the specifications to your project, simply use those sections which apply. Also, it may be prudent to place certain parts of the Dryvit Fedderlite Panel Specification in other parts of the project's total specification, such as sealants and framing. The project design professionals are responsible for ensuring that the project specifications are suitable for the project. For assistance in preparing your specification, contact your Dryvit Distributor or Dryvit Systems, Inc.

UNITS

Standard International Units (SI) are included in parentheses after the English equivalents thus:

1/2 in (12.7 mm) 1.0 pcf (16 Kg/m³)

Please note that the conversions may not be exact but rather represent commonly used equivalents.

WARNING

The Fedderlite Panel System is designed and detailed to prevent water from entering the system. If specifications are not followed and proper details not adhered to, water may intrude the system, resulting in possible damage to the system and other building elements in the wall.

DISCLAIMER

Information contained in this specification conforms to standard detail and product recommendations for the installation of the Dryvit Fedderlite Panel System products as of the date of publication of this document and is presented in good faith. Dryvit Systems, Inc. assumes no liability, expressed or implied, as to the architecture, engineering or workmanship of any project. To ensure that you are using the latest, most complete information, visit our website at www.dryvit.com or contact Dryvit Systems, Inc., at

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**DRYVIT SYSTEMS, INC.
MANUFACTURER'S SPECIFICATION
CSI MASTERFORMAT SECTION 07 24 19
FEDDERLITE PANEL SYSTEM**

PART I GENERAL**1.01 SUMMARY**

A. This document is to be used in preparing specifications for projects utilizing the Dryvit Fedderlite Panel System. For complete product description and usage refer to:

1. Dryvit Fedderlite Panel System Installation Details, [DS113](#)
2. Dryvit Fedderlite Installation and Fabrication Instructions, [DS217](#)
3. Dryvit Tech 21 Brochure, [DS210](#)
4. Dryvit Backstop NT, Vapor Permeable Air/Water Resistive Barrier, [DS455](#)
5. Dryvit Backstop NT-VB, Vapor Barrier Air/Water Resistive Barrier, [DS829](#)

B. Related Sections

1. Unit Masonry – Section 04 20 00
2. Concrete – Sections 03 00 00
3. Cold-Formed Metal Framing – Section 05 40 00
4. Wood Framing – Section 06 11 00
5. Joint Protection – Section 07 90 00
6. Flashing – Section 07 60 00
7. Water-Resistive Barriers – Section 07 25 00
8. Vapor Retarders – 07 26 13
9. Air Barriers – 07 27 26

1.02 REFERENCES**A. Section Includes**

1. AATCC 127 Water resistance Test: Hydrostatic pressure test
2. ASTM A 653 Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process
3. ASTM B 117 (Federal Test Standard 141A Method 6061) Standard Practice for Operating Salt Spray (Fog) Apparatus
4. ASTM C67 Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile
5. ASTM C 150 Standard Specification for Portland Cement
6. ASTM C177 Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus
7. ASTM C272 Standard Test Method for Water Absorption of Core Materials for Sandwich Constructions
8. ASTM C 297 Standard Test Method for Flatwise Tensile Strength of Sandwich Constructions
9. ASTM C203 Standard Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal Insulation
10. ASTM C303 Standard Test Method for Dimensions and Density of Preformed Block and Board-Type Thermal Insulation
11. ASTM C518 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
12. ASTM C 1177 Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing
13. ASTM C1325 Standard Specification for Non-Asbestos Fiber-Mat Reinforced Cementitious Backer Units
14. ASTM D 968 (Federal Test Standard 141A Method 6191) Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive
15. ASTM D1621 Standard Test Method for Compressive Properties of Rigid Cellular Plastics
16. ASTM D1622 Standard Test Method for Apparent Density of Rigid Cellular Plastics
17. ASTM D 1970 Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection
18. ASTM D 2247 (Federal Test Standard 141A Method 6201) Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity
19. ASTM D2863 Standard Test Method for Measuring the Minimum Oxygen Concentration to Support Candle-Like Combustion of Plastics (Oxygen Index)
20. ASTM D 2898 Standard Test Method for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing

21. ASTM D 3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber
22. ASTM D 4060 Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser
23. ASTM E 72 Standard Test Methods of Conducting Strength Tests of Panels for Building Construction
24. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials
25. ASTM E 96 Standard Test Methods for Water Vapor Transmission of Materials
26. ASTM E 119 Standard Method for Fire Tests of Building Construction and Materials
27. ASTM E 283 Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen
28. ASTM E 330 Test Method for Structural Performance of Exterior Windows, Doors and Curtain Walls by Uniform Static Air Pressure Difference
29. ASTM E 331 Test Method for Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Uniform Static Air Pressure Difference
30. ASTM E 2098 Test Method for Determining the Tensile Breaking Strength of Glass Fiber Reinforcing Mesh for use in Class PB Exterior Insulation and Finish Systems (EIFS), after Exposure to Sodium Hydroxide Solution
31. ASTM E 2134 Test Method for Evaluating the Tensile-Adhesion Performance of Exterior Insulation and Finish Systems (EIFS)
32. ASTM E 2178 Standard Test Method for Air Permeance of Building Materials
33. ASTM E 2273 Test Method for Determining the Drainage Efficiency of Exterior Insulation and Finish Systems (EIFS) Clad Wall Assemblies
34. ASTM E 2357 Standard Test Method for Determining Air Leakage of Air Barrier Assemblies
35. ASTM E 2430 Standard Specification for Expanded Polystyrene (EPS) Thermal Insulation Boards for use in Exterior Insulation and Finish Systems (EIFS)
36. ASTM E 2485 (formerly EIMA Std. 101.01) Standard Test Method for Freeze-Thaw Resistance of Exterior Insulation and Finish Systems (EIFS) and Water-Resistive Barrier Coatings
37. ASTM E 2486 (formerly EIMA Std. 101.86) Standard Test Method for Impact Resistance of Class PB and PI Exterior Insulation and Finish Systems (EIFS)
38. ASTM E 2568 Standard Specification for PB Exterior Insulation and Finish Systems
39. ASTM E 2570 Standard Test Method for Evaluating Water-Resistive Barrier (WRB) Coatings Used Under Exterior Insulation and Finish Systems (EIFS) or EIFS with Drainage
40. ASTM G154 Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials
41. ASTM G 155 (Federal Test Standard 141A Method 6151) Standard Practice for Operating-Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials
42. Mil Std E5272 Environmental Testing
43. Mil Std 810B Environmental Test Methods
44. NFPA 268 Standard Test Method for Determining Ignitibility of Exterior Wall Assemblies Using a Radiant Heat Energy Source.
45. NFPA 285 Standard Method of Test for the Evaluation of Flammability Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components Using the Intermediate-Scale, Multistory Test Apparatus
46. ISO 9001:2015 Quality Management System
47. ISO 14001:2015 Environmental Management System

1.03 DEFINITIONS

- A. Base Coat: Material used to encapsulate one or more layers of reinforcing mesh fully embedded that is applied to the outside surface of the EPS.
- B. Building Expansion Joint: A joint through the entire building structure designed to accommodate structural movement.
- C. Panel Erector: The contractor that installs the Fedderlite Panel System to the substrate.
- D. Dryvit: Dryvit Systems, Inc., the manufacturer of the components of the Fedderlite Panel System, a Rhode Island corporation.
- E. Expansion Joint: A structural discontinuity in the Fedderlite Panel System.
- F. Finish: An acrylic-based coating, available in a variety of textures and colors that is applied over the base coat.
- G. Insulation Board: Expanded polystyrene (EPS) insulation board.
- H. Panel Fabricator: The contractor who fabricates the panelized Fedderlite Panel System.
- I. Reinforcing Mesh: Glass fiber mesh(es) used to reinforce the base coat and to provide impact resistance.
- J. Substrate: The material to which the Fedderlite Panel System is affixed.

1.04 SYSTEM DESCRIPTION

- A. General: The Dryvit Fedderlite Panel System is a prefabricated lightweight exterior CI insulated wall panel which is installed over approved substrates.
- B. Methods of Installation:
1. Adhesively attached: The Fedderlite Panel System is adhesively applied to the substrate.
 2. Mechanically attached: The Fedderlite Panel System is attached to the substrate using engineered fastening systems.
- C. Design Requirements:
1. Acceptable substrates for Fedderlite Panels include:
 - b. Exterior sheathing having a water-resistant core with fiberglass mat facers meeting ASTM C 1177.
 - c. Exterior fiber reinforced cement or calcium silicate boards meeting ASTM C1325.
 - d. CMU, concrete or brick.
 - e. Structural substrates that can accept engineered mechanical attachment.
 - f. Surfaces coated with Dryvit Backstop NT air/water resistive barrier.
 2. The slope of inclined surfaces shall not be less than 6:12 (27°) and the length shall not exceed 12 in (305 mm).
 3. The Fedderlite Panels shall be held back from adjoining materials around openings and penetrations such as windows, doors, and other penetrations a minimum of 3/4 in (19 mm) for sealant application. See Dryvit's Fedderlite Panel System Installation Details, [DS113](#).
 4. The Fedderlite panels shall be terminated a minimum of 2 in (51 mm) above hardscape and 8 in (203 mm) above softscape.
 5. Sealants
 - a. Shall be manufactured and supplied by others.
 - b. Shall be compatible with the Fedderlite Panel System materials. Refer to current Dryvit Publication [DS153](#) for listing of sealants tested by sealant manufacturer for compatibility.
 - c. The sealant backer rod shall be closed cell.
 6. Vapor Retarders: The use and location of vapor retarders within a wall assembly is the responsibility of the project designer and shall comply with local building code requirements. The type and location shall be noted on the project drawings and specifications. Vapor retarders may be inappropriate in certain climates and can result in condensation within the wall assembly. Refer to Dryvit Publication [DS159](#) for additional information.
 7. Dark Colors: The use of dark colors must be considered in relation to wall surface temperature as a function of local climatic conditions. Use of dark colors in high temperature climates can affect the performance of the system.
 8. The maximum service temperature of the EPS insulation is 165°F (74°C). The system shall be protected from direct exposure to heating appliances, reflective surfaces and other conditions that may cause the product temperature to exceed this value.
 9. Flashing: Shall be provided at all roof-wall intersections, windows, doors, chimneys, decks, balconies and other areas as necessary to prevent water from entering behind the Fedderlite Panel System.
 10. Deflection of the substrate system shall not exceed L/240.
 11. Site Coated EPS Shapes and Starter Boards: Shall be coated on site utilizing the same materials (EPS, base material mixture, reinforcing mesh, and finish) as specified for the project.
 12. Machine Coated EPS Shapes and Starter Boards: Shall be supplied by a manufacturer that subscribes to the Dryvit third party certification and quality assurance program.

D. Performance Requirements:

1. The Fedderlite Panel System shall have been tested as follows:

a. Backstop NT Air/Water-Resistive Barrier Coating

| TEST | TEST METHOD | CRITERIA | RESULTS |
|--|-----------------------|--|--|
| Tensile Bond | ASTM C 297/E 2134* | Minimum 15 psi (104 kPa) | Substrate: Minimum 19 psi (131 kPa) (Backstop NT) Minimum 24.1 psi (166 kPa) (Backstop DMS) Flashing: Minimum 431 psi (2970 kPa) (Backstop NT) Minimum 140 psi (967 kPa) (Backstop DMS) |
| Freeze-thaw | ASTM E 2485 Method B* | No deleterious effects after 10 cycles | Passed - No deleterious effects after 10 cycles |
| Water Resistance | ASTM D 2247* | No deleterious effects after 14 days exposure ¹ | No deleterious effects after 14 days exposure |
| Water Vapor Transmission | ASTM E 96 Proc. B* | Vapor Permeable | Vapor Permeable Backstop NT-VB: .08 Perms ² |
| Air Leakage | ASTM E 283 | No ICC or ANSI/EIMA Criteria | 0.002 cfm/ft ² (0.01 l/sec/m ²) (Backstop NT) |
| Air Permeance | ASTM E 2178 | No ICC or ANSI/EIMA Criteria | 1.2x10 ⁻⁴ cfm/ft ² @ 1.6 psf (0.0006 l/s/m ² @ 75 Pa) (Backstop NT) |
| Air Barrier Assembly | ASTM E 2357 | No ICC or ANSI/EIMA Criteria | <0.001 cfm/ft ² @ 6.24 psf (0.05 l/sec m ² @300 Pa) (Backstop NT) |
| Nail Sealability | ASTM D 1970 | No ICC or ANSI/EIMA Criteria | Passed ABAA Criteria |
| Structural Performance | ASTM E 1233 Proc. A* | Minimum 10 positive cycles at 1/240 deflection; No cracking in field, at joints or interface with flashing | Passed |
| Racking | ASTM E 72* | No cracking in field, at joints or interface with flashing at net deflection of 1/8 in (3.2 mm) | Passed |
| Restrained Environmental | ICC-ES Procedure* | 5 cycles; No cracking in field, at joints or interface with flashing | Passed |
| Water Penetration | ASTM E 331* | No water penetration beyond the inner-most plane of the wall after 15 minutes at 2.86 psf (137 Pa) | Passed |
| Weathering UV Exposure | ASTM D 2898 Method B* | 210 hours of exposure | Passed |
| Accelerated Aging | ICC-ES Procedure* | 25 cycles of wetting and drying | Passed |
| Hydrostatic Pressure Test | AATCC 127* | ICC: 21.6 in (549 mm) water column for 5 hours | Passed |
| Surface Burning Characteristics | ASTM E 84 | Flame Spread < 25 Smoke Developed < 450 | Passed |

* ASTM E 2570 Standard Test Method for Evaluating Water-Resistive Barrier (WRB) Coatings Used Under Exterior Insulation and Finish Systems (EIFS) or EIFS with Drainage, also referred to as AC212 – Acceptance Criteria for Water-Resistive Coatings Used as Water-Resistive Barriers over Exterior Sheathing

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

2. Defined as a Class I vapor retarder per the 2009 IBC and IRC

b. Durability

| TEST | TEST METHOD | CRITERIA | RESULTS |
|---------------------------------|--------------------------|---|--|
| Abrasion Resistance | ASTM D 968 | No deleterious effects after 528 quarts (500 liters) | No deleterious effects after 1056 quarts (1000 liters) |
| Accelerated Weathering | ASTM G 155 Cycle 1 | No deleterious effects after 2000 hours | No deleterious effects after 5000 hours |
| | ASTM G 154 Cycle 1 (QUV) | | No deleterious effects after 5000 hours |
| Freeze-Thaw | ASTM E 2485 Method | No deleterious effects after 60 cycles | Passed - No deleterious effects after 90 cycles |
| | ASTM C 67 modified | No deleterious effects after 60 cycles | Passed - No deleterious effects after 60 cycles |
| | ASTM E 2485 Method B | No deleterious effects after 10 cycles | Passed - No deleterious effects after 10 cycles |
| Mildew Resistance | ASTM D 3273 | No growth during 28 day exposure period | No growth during 60 day exposure period |
| Water Resistance | ASTM D 2247 | No deleterious effects after 14 days exposure | No deleterious effects after 42 days exposure |
| Taber Abrasion | ASTM D 4060 | N/A | Passed 1000 cycles |
| Salt Spray Resistance | ASTM B 117 | No deleterious effects after 300 hours exposure | No deleterious effects after 1000 hours exposure |
| Water Penetration | ASTM E 331 | No water penetration beyond the inner-most plane of the wall 2 hours at 6.24 psf (299 Pa) | Passed |
| Water Vapor Transmission | ASTM E 96 Procedure B | Vapor permeable | EPS 5 perm-inch Base Coat ¹ 40 Perms Finish ² 40 Perms |
| Drainage Efficiency | ASTM E 2273 | Minimum Drainage Efficiency of 90% | Passed |

1. Base Coat perm value based on Dryvit Genesis®
2. Finish perm value based on Dryvit Quarzputz

c. Structural – Adhesive Attachment

| TEST | TEST METHOD | CRITERIA | RESULTS |
|-----------------------------|-------------------|--|--|
| Tensile Bond | ASTM C 297/E 2134 | Minimum 15 psi (104 kPa) – substrate or insulation failure | Minimum 31 psi (213.6 kPa) |
| Transverse Wind Load | ASTM E 330 | Withstand positive and negative wind loads as specified by the building code | Minimum 90 psf (4.3 kPa) ¹ 16 in o.c. framing, 1/2 in sheathing screw attached at 8 in (203 mm) o.c. |

1. All Dryvit components remain intact – for higher wind loads contact Dryvit Systems, Inc. For mechanically attached panels, engineered attachment details shall be supplied by the panel fabricator.

d. Impact Resistance: In accordance with ASTM E 2486

| Reinforcing Mesh ¹ /Weight oz/yd ² (g/m ²) | Minimum Tensile Strengths | EIMA Impact Classification | EIMA Impact Range | | Impact Test Results | |
|---|---------------------------|----------------------------|-------------------|----------|---------------------|----------|
| | | | in-lbs | (Joules) | in-lbs | (Joules) |
| Standard - 4.3 (146) | 150 lbs/in (27 g/cm) | Standard | 25-49 | (3-6) | 36 | (4) |
| Standard Plus - 6 (203) | 200 lbs/in (36 g/cm) | Medium | 50-89 | (6-10) | 56 | (6) |
| Intermediate™ - 12 (407) | 300 lbs/in (54 g/cm) | High | 90-150 | (10-17) | 108 | (12) |
| Panzer® 15 ² - 15 (509) | 400 lbs/in (71 g/cm) | Ultra High | >150 | (>17) | 162 | (18) |
| Panzer 20 ² - 20.5 (695) | 550 lbs/in (98 g/cm) | Ultra High | >150 | (>17) | 352 | (40) |
| Detail Mesh® Short Rolls - 4.3 (146) | 150 lbs/in (27 g/cm) | n/a | n/a | n/a | n/a | n/a |
| Corner Mesh™ - 7.2 (244) | 274 lbs/in (49 g/cm) | n/a | n/a | n/a | n/a | n/a |

1. Colored blue and bear the Dryvit logo for product identification
2. Used in conjunction with Standard Mesh (recommended for areas exposed to high traffic)

e. Fire performance - Adhesive Attachment

| TEST | TEST METHOD | CRITERIA | RESULTS |
|------------------------------------|-------------|--|--|
| Fire Resistance | ASTM E 119 | No effect on the fire resistance of a rated wall assembly | Passed 1 hour non-load bearing |
| | | | Passed 2-hour load bearing over wood framing |
| Ignitability | NFPA 268 | No ignition at 12.5 kw/m ² at 20 minutes | Passed |
| Intermediate Multi-Story Fire Test | NFPA 285 | 1. Resist flame propagation over the exterior surface 2. Resist vertical spread of flame within combustible core/component of panel from one story to the next 3. Resist vertical spread of flame over the interior surface from one story to the next 4. Resist lateral spread of flame from the compartment of fire origin to adjacent spaces | Passed over steel framing and wood framing |

2. The Fedderlite Panel components shall be tested for:

a. Fire

| TEST | TEST METHOD | CRITERIA | RESULTS |
|---------------------------------|-------------|--|---------|
| Surface Burning Characteristics | ASTM E 84 | All components shall have a: Flame Spread ≤ 25 Smoke Developed ≤ 450 | Passed |

b. Durability

| TEST | TEST METHOD | CRITERIA | RESULTS |
|--|---------------------|--|---------|
| Reinforcing Mesh Alkali Resistance of Reinforcing Mesh | ASTM E 2098 | 120 pli (> 21dN/cm) retained tensile strength after exposure | Passed |
| EPS (Physical Properties) Density | ASTM C 303, D 1622 | 0.95-1.25 lb/ft ³ (15.2-20.0 kg/m ³) | Passed |
| Thermal Resistance | ASTM C 177, C 518 | 4.0 @ 40 °F (4.4 °C) | Passed |
| | | 3.6 @ 75 °F (23.9 °C) | Passed |
| Water Absorption | ASTM C 272 | 2.5 % max. by volume | Passed |
| Oxygen Index | ASTM D 2863 | 24% min. by volume | Passed |
| Compressive Strength | ASTM D 1621 Proc. A | 10 psi (69 kPa) min. | Passed |
| Flexural Strength | ASTM C 203 | 25 psi (172 kPa) min. | Passed |
| Flame Spread Smoke Developed | ASTM E 84 | 25 max. | Passed |
| | | 450 max. | Passed |

1.05 SUBMITTALS

- A. Product Data: The contractor shall submit to the owner/architect the manufacturer's product data sheets describing products, which will be used on this project.
- B. Shop Drawings: The panel fabricator shall prepare and submit to the owner/architect complete drawings showing: wall layout, connections, details, expansion joints, and installation sequence.
- C. Samples: The contractor shall submit to the owner/architect two (2) samples for each finish, texture and color to be used on the project. The same tools and techniques proposed for the actual installation shall be used. Samples shall be of sufficient size to accurately represent each color and texture being utilized on the project.
- D. Environmental Product Declaration: When requested, the contractor shall submit to the owner/architect copies of the Environmental Product Declaration (EPD) describing the estimated environmental impacts.
- E. Warranty: When requested, a copy of the warranty shall be included in the submittal.

1.06 QUALITY ASSURANCE

A. Qualifications.

1. System Manufacturer: Shall be Dryvit Systems, Inc. All materials shall be manufactured or sold by Dryvit and shall be purchased from Dryvit or its authorized distributors.
 - a. Materials shall be manufactured at a facility covered by a current ISO 9001:2008 and ISO 14001:2004 certification. Certification of the facility shall be done by a registrar accredited by the American National Standards Institute, Registrar Accreditation Board (ANSI-RAB).
2. Insulation Board Manufacturer: Shall be listed by Dryvit Systems, Inc., shall be capable of producing the Expanded Polystyrene (EPS) in accordance with the current Dryvit Specification for Insulation Board, [DS131](#), and shall subscribe to the Dryvit Third Party Certification and Quality Assurance Program.
3. Panel Fabricator: Shall be a contractor experienced and competent in the fabrication of architectural wall panels.
4. Panel Erector: Shall be experienced and competent in the installation of architectural wall panel systems.
5. Sealant Contractor: Shall be experienced and competent in the installation of commercial sealants.
6. Machine Coated EPS Shapes and Starter Boards: Shall be supplied by a manufacturer that subscribes to the Dryvit third party certification and quality assurance program.

B. Regulatory Requirements:

1. The EPS shall be separated from the interior of the building by a minimum 15-minute thermal barrier.
2. The use and maximum thickness of EPS shall be in accordance with the applicable building code(s).

C. Mock-Up

1. The contractor shall, before the project commences, provide the owner/architect with a mock-up for approval.
2. The mock-up shall be of suitable size as required to accurately represent the products being installed, as well as each color and texture to be utilized on the project.
3. The mock-up shall be prepared with the same products, tools, equipment and techniques required for the actual applications. The finish used shall be from the same batch that is being used on the project.
4. The approved mock-up shall be available and maintained at the jobsite.

1.07 DELIVERY, STORAGE AND HANDLING

- A. At the Fedderlite panel fabrication location and job site, the panels shall be stored under cover, well ventilated, with entire panel protected from weather, excessive heat, dust, dirt, and ponding water.
- B. Panels shall be stored so as to prevent damage or distortion.
- C. Positive means shall be employed to protect panel edges from damage during handling and transport.

1.08 PROJECT CONDITIONS

A. Environmental Requirements

1. Adhesive application of panels shall not take place during inclement weather unless appropriate protection is provided. Protect materials from inclement weather until the adhesive is completely dry.
2. At the time of adhesive application, the air and wall surface temperatures shall be from 40 °F (4 °C) minimum to 100 °F (38 °C) maximum.
3. These temperatures shall be maintained with adequate air ventilation and circulation for a minimum of 24 hours or until the adhesive is completely dry.

- B. Existing Conditions: The contractor shall have access to electric power, clean water and a clean work area at the location where the Fedderlite panels are to be installed.

1.09 SEQUENCING AND SCHEDULING

- A. Installation of the Fedderlite Panel System shall be coordinated with other construction trades.

1.10 WARRANTY

- A. Dryvit Systems, Inc. shall provide a written limited materials and workmanship warranty upon written request. A moisture drainage warranty is also available when drainage provisions are incorporated. Dryvit shall make no other warranties, expressed or implied. Full details are available from Dryvit Systems, Inc.

1.11 DESIGN RESPONSIBILITY

- A. It is the responsibility of both the specifier and the purchaser to determine if a product is suitable for its intended use. The panel fabricator selected by the purchaser shall be responsible for coordinating with the building designer all decisions pertaining to design, detail, structural capability, attachment details, shop drawings and the like. Dryvit has prepared guidelines in the form of specifications, installation details, and product data sheets to facilitate the design process only. Dryvit is not liable for any errors or omissions in design, detail, structural capability, attachment details, shop drawings, or the like, whether based upon the information prepared by Dryvit or otherwise, or for any changes which purchasers, specifiers, designers, or their appointed representatives may make to Dryvit's published comments.

1.12 MAINTENANCE

- A. All Dryvit products are designed to require minimal maintenance. However, as with all building products, depending on location, some cleaning may be required. See Dryvit publication [DS152](#) on Cleaning and Recoating.
- B. Sealants and Flashings shall be inspected on a regular basis and repairs made as necessary.

PART II PRODUCTS

2.01 MANUFACTURER

- A. All components of the Fedderlite Panel System shall be supplied or obtained from Dryvit or its authorized distributors. Substitutions or additions of materials other than specified will void the warranty.

2.02 MATERIALS

- A. Portland Cement: Shall be Type I or II, meeting ASTM C 150, white or gray in color, fresh and free of lumps.
- B. Water: Shall be clean and free of foreign matter.

2.03 COMPONENTS

- A. Air/Water-Resistive Barrier Components (when specified):
1. Dryvit Backstop NT: A vapor permeable, flexible, polymer-based noncementitious water-resistive and air barrier coating available in Texture, Smooth, and Spray. See [DS180](#) and [DS181](#).
 2. Dryvit Backstop NT-VB: A Class 1 vapor retarder, available in trowel and spray versions. When specified, consider having a WVT analysis performed. See [DS830](#) and [DS831](#).
 3. Dryvit Grid Tape™: An open weave fiberglass mesh tape with pressure sensitive adhesive available in rolls 4 in (102 mm) wide by 100 yds (91 m) long.
- B. Flashing/Transition membrane: Used to protect substrate edges at terminations.
1. Shall be AquaFlash and AquaFlash Mesh: A waterproof, flexible, water-based polymer material and reinforcing fabric.
- C. Adhesives: Used to adhere the Fedderlite panels to the substrate or air/water-resistive barrier, shall be compatible with the substrate, water-resistive barrier and the EPS.
1. Cementitious: A liquid polymer-based material, which is field mixed with Portland cement.
 - a. Shall be Primus, or Genesis
 2. Ready mixed: A dry blend cementitious, copolymer-based product, field mixed with water.
 - a. Shall be Primus® DM, Genesis® DM, Genesis® DMS, Rapidry DM 35-50 or Rapidry DM 50-75
 3. Gunnable adhesive: A moisture cure urethane adhesive available in tubes.
 - a. Shall be Dryvit AP Adhesive.
- D. Insulation Board: Expanded Polystyrene meeting Dryvit Specification for Insulation Board, [DS131](#).
1. Thickness of insulation board shall be minimum 2 in (50.8 mm).
 2. The insulation board shall be manufactured by a board supplier listed by Dryvit Systems, Inc.
- E. Machine Coated EPS Shapes and Starter Boards: Shall be supplied by a manufacturer that subscribes to the Dryvit third party certification and quality assurance program.
- F. Reinforcing Channels: Used to reinforce the Fedderlite panels and provide structural attachments to the substrate, shall be one of the following:
1. 6063 T5 or T6 Aluminum channels
 2. ASTM A653 G90 Galvanized steel
- G. Base Coat: Shall be compatible with the EPS insulation board and reinforcing mesh(es).
1. Cementitious: A liquid polymer-based material, which is field mixed with Portland cement.
 - a. Shall be Primus, or Genesis
 2. Ready mixed: A dry blend cementitious, copolymer-based product, field mixed with water.
 - a. Shall be Primus DM, Genesis DM, Genesis DMS, Rapidry DM 35-50 or Rapidry DM 50-75.
- H. Reinforcing Mesh: A balanced, open weave, glass fiber fabric treated for compatibility with other system materials.
- NOTE: Reinforcing meshes are classified by impact resistance and specified by weight and tensile strength as listed in Section 1.04.D.1.d.**
1. Shall be Standard, Standard Plus, Intermediate, Panzer 15, Panzer 20, Detail and Corner Mesh
 2. Shall be colored blue for product identification bearing the Dryvit logo.
- I. Finish: Shall be the type, color and texture as selected by the architect/owner and shall be one or more of the following:
1. Standard DPR (Dirt Pickup Resistance): Water-based, acrylic coating with integral color and texture and formulated with DPR chemistry:
 - a. Quarzputz® DPR: Open-texture
 - b. Sandblast® DPR: Medium texture
 - c. Freestyle® DPR: Fine texture
 - d. Sandpebble® DPR: Pebble texture
 - e. Sandpebble® Fine DPR: Fine pebble texture

2. Hydrophobic (HDP™) Finishes: 100% acrylic coating with integral color and texture and formulated with hydrophobic properties:
 - a. Quarzputz® HDP
 - b. Sandblast® HDP
 - c. Sandpebble® HDP
 - d. Sandpebble® Fine HDP
 - e. Limestone™ HDP
 - f. Finesse™ HDP
3. **E**: Water-based, lightweight acrylic coating with integral color and texture and formulated with DPR chemistry:
 - a. Quarzputz® **E**
 - b. Sandpebble® **E**
 - c. Sandpebble® Fine **E**
4. Specialty Finishes and Veneers:
 - a. Ameristone: Multi-colored quartz aggregate with a flamed granite appearance.
 - b. Stone Mist®: Ceramically colored quartz aggregate.
 - c. Custom Brick: Acrylic polymer-based finish used in conjunction with a proprietary template system to create the look of stone, brick, slate or tile.
 - d. TerraNeo: 100% acrylic-based finish with large mica chips and multi-colored quartz aggregates.
 - e. Limestone: A premixed, 100% acrylic-based finish designed to replicate the appearance of limestone blocks.
 - f. Reflectit: 100% acrylic coating providing a pearlescent appearance.
 - g. Finesse™: A smooth 100% acrylic-based dirt pickup resistance finish.
 - h. Tibur Stone™: A smooth 100% acrylic-based dirt pickup resistance finish with the appearance of travertine stone.
 - i. NewBrick®: A lightweight insulated brick veneer for use on exterior walls.
 - j. Ferros™ Finish: - a water-based finish properties that replicates the look of rusting metal.
5. Elastomeric DPR (Dirt Pickup Resistance): Water- based, elastomeric acrylic coating with integral color and texture and formulated with DPR chemistry:
 - a. Weatherlastic® Quarzputz
 - b. Weatherlastic® Sandpebble
 - c. Weatherlastic® Sandpebble Fine
 - d. Weatherlastic® Adobe
6. Medallion Series PMR™ (Proven Mildew Resistance): Water-based, acrylic coating with integral color and texture and formulated with PMR chemistry:
 - a. Quarzputz® PMR
 - b. Sandblast® PMR
 - c. Freestyle® PMR
 - d. Sandpebble® PMR
 - e. Sandpebble® Fine PMR
7. Coatings, Primers and Sealers:
 - a. Demandit® Smooth
 - b. Demandit® Sanded
 - c. Demandit® Advantage™
 - d. HDP™ Water-Repellent Coating
 - e. Weatherlastic® Smooth
 - f. Tuscan Glaze™
 - g. Color Prime
 - h. Prymit®
 - i. SealClear™

PART III EXECUTION

3.01 EXAMINATION

- A. Prior to installation of the Fedderlite Panel System, the contractor shall verify that the substrate:
 1. Is of a type listed in Section 1.04.C.1.
 2. Is flat within 1/4 in (6.4 mm) in a 4 ft (1.2 m) radius.
 3. Is sound, dry, connections are tight; has no surface voids, projections, or other conditions that may interfere with the Fedderlite Panel System installation or performance.

- B. Prior to installation of the Fedderlite Panel System, the architect or general contractor shall ensure that all needed flashings and other waterproofing details have been completed, if such completion is required prior to the Fedderlite Panel application. Additionally, the Contractor shall ensure that:
1. Metal roof flashing has been installed in accordance with the manufacturer's requirements, Asphalt Roofing Manufacturers Association (ARMA) Standards and Dryvit Fedderlite Panel Installation Details, [DS113](#), or as otherwise necessary to maintain a watertight envelope.
 2. Openings are flashed in accordance with the contract documents, Fedderlite Panel System Installation Details, [DS113](#), or as otherwise necessary to prevent water penetration.
 3. Chimneys, balconies and decks have been properly flashed.
 4. Windows, doors, etc. are installed and flashed per contract documents, manufacturer's requirements and the Fedderlite Panel System Installation Details, [DS113](#).
- C. Prior to the installation of the Fedderlite Panel System, the contractor shall notify the general contractor, and/or architect, and/or owner of all discrepancies.

3.02 PREPARATION

- A. The Fedderlite Panel materials shall be protected by permanent or temporary means from inclement weather and other sources of damage prior to, during, and following application until adhesive is completely dry and all permanent flashings and sealants installed.
- B. Protect adjoining work and property during Fedderlite Panel installation.
- C. For adhered installations, the substrate shall be prepared as to be free of foreign materials, such as oil, dust, dirt, form-release agents, efflorescence, paint, wax, water repellants, moisture, frost, and any other condition that may inhibit adhesion.

3.03 INSTALLATION

- A. The Fedderlite panels shall be installed in accordance with approved shop drawings.
- B. Dryvit Fedderlite Panel base coat surfaces in contact with sealant shall be coated with Demandit Smooth or Color Prime.
- C. High impact meshes shall be installed as specified at ground level, high traffic areas and other areas exposed to or susceptible to impact damage.
- D. The installation of Pre-Coated EPS Shapes and Starter Boards shall be in accordance with Dryvit Publication [DS854](#).

3.04 FIELD QUALITY CONTROL

- A. The contractor shall be responsible for the proper storage and application of the Fedderlite Panel materials.
- B. Dryvit assumes no responsibility for on-site inspections or application of its products.
- C. If required, the contractor shall certify in writing the quality of work performed relative to the substrate system, details, installation procedures, workmanship and as to the specific products used.
- D. If required, the EPS supplier shall certify in writing that the EPS meets Dryvit's specifications.
- E. If required, the sealant contractor shall certify in writing that the sealant application is in accordance with the sealant manufacturer's and Dryvit's recommendations.

3.05 CLEANING

- A. All excess Fedderlite Panel materials shall be removed from the job site by the contractor in accordance with contract provisions.
- B. All surrounding areas, where the Dryvit Fedderlite Panel System has been applied, shall be left free of debris and foreign substances resulting from the contractor's work.

3.06 PROTECTION

- A. The building shall be protected from inclement weather and other sources of damage until permanent protection in the form of flashings, sealants, etc. are installed.