## FEDDERLITE<sup>®</sup> M PANEL SYSTEM



Prefabricated, Lightweight, Mechanically Fastened Continuous Insulated Exterior Wall Panels with Integral Channel Reinforcing and Structural Mounting Rail Attachment

### Fedderlite M Panel System Specifications



#### INTRODUCTION

This manufacturer's guide specification is intended for use by design and construction professionals in the development of project specifications. By referring to the manufacturer's edit notes (in parentheses and bolded), the specifier may easily elect the portions of the comprehensive guide specification which are pertinent to his or her project. This guide specification follows the Construction Specification Institute's MasterFormat and SectionFormat protocols.

It will be prudent to place certain parts of the Dryvit Fedderlite M Panel System Specification in other parts of the project's total specification, such as sheathing, air and water-resistive barrier membrane, accessory materials, sealants, and framing. The project design professionals are responsible for verifying that the project specifications are suitable for the project. For assistance in preparing your specification, please contact your Dryvit Distributor or Dryvit

#### 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/m<sup>3</sup>)

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

#### WARNING

The Fedderlite M 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.

#### **DESIGN RESPONSIBILITY**

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 or Panel Erector 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.

#### DISCLAIMER

Information contained in this specification conforms to standard detail and product recommendations for the installation of the Dryvit Fedderlite M Panel System products as of the date of publication of this document and is presented in good faith. Dryvit 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, at

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#### DRYVIT MANUFACTURER'S SPECIFICATION CSI MASTERFORMAT SECTION 07 46 00 FEDDERLITE M PANEL SYSTEM

#### PART I GENERAL

#### 1.01 SUMMARY

- A. This document is to be used in preparing specifications for a Prefabricated Panel System defined as follows:
  - 1. An engineered, shop fabricated, continuous insulated, reinforced lamina coated and prefinished wall panel assembly including integral channel reinforcing and structural mounting rail components for attachment direct onto an acceptable wall substrate surface.
  - 2. Where additionally specified, the Panel System may include proprietary air/water-resistive barrier and joint sealant.
- B. Related Sections:
  - 1. Concrete Sections 03 00 00
  - 2. Unit Masonry Section 04 20 00
  - 3. Cold-Formed Metal Framing Section 05 40 00
  - 4. Wood Framing Section 06 11 00
  - 5. Water-Resistive Barriers Section 07 25 00
  - 6. Vapor Retarders Section 07 26 13
  - 7. Air Barriers Section 07 27 26
  - 8. Flashing Section 07 60 00
  - 9. Joint Protection Section 07 90 00

#### **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 B117 (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 C150 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 C297 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 C1177 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 D968 (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 D1970 Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection
  - 18. ASTM D2247 (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 D2898 Standard Test Method for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing
- 21. ASTM D3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber
- 22. ASTM D4060 Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser
- 23. ASTM E72 Standard Test Methods of Conducting Strength Tests of Panels for Building Construction
- 24. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials
- 25. ASTM E96 Standard Test Methods for Water Vapor Transmission of Materials
- 26. ASTM E119 Standard Method for Fire Tests of Building Construction and Materials
- 27. ASTM E283 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 E330 Test Method for Structural Performance of Exterior Windows, Doors and Curtain Walls by Uniform Static Air Pressure Difference
- 29. ASTM E331 Test Method for Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Uniform Static Air Pressure Difference
- 30. ASTM E2098 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 E2357 Standard Test Method for Determining Air Leakage of Air Barrier Assemblies
- 32. ASTM E2430 Standard Specification for Expanded Polystyrene (EPS) Thermal Insulation Boards for use in Exterior Insulation and Finish Systems (EIFS)
- 33. ASTM E2485 (formerly EIMA Std. 101.01) Standard Test Method for Freeze-Thaw Resistance of Exterior Insulation and Finish Systems (EIFS) and Water-Resistive Barrier Coatings
- 34. ASTM E2486 (formerly EIMA Std. 101.86) Standard Test Method for Impact Resistance of Class PB and PI Exterior Insulation and Finish Systems (EIFS)
- 35. ASTM E2568 Standard Specification for PB Exterior Insulation and Finish Systems
- 36. ASTM E2570 Standard Test Method for Evaluating Water-Resistive Barrier (WRB) Coatings Used Under Exterior Insulation and Finish Systems (EIFS) or EIFS with Drainage
- 37. ASTM G154 Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials
- 38. ASTM G155 (Federal Test Standard 141A Method 6151) Standard Practice for Operating-Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials
- 39. Mil Std E5272 Environmental Testing
- 40. Mil Std 810B Environmental Test Methods
- 41. ISO 9001:2015 Quality Management System
- 42. ISO 14001:2015 Environmental Management System

#### **1.03 SYSTEM DESCRIPTION**

- A. General: The Panel System is a prefabricated lightweight exterior continuous insulated (CI) wall panel which is installed over acceptable substrates.
- B. Methods of Installation:
  - 1. Mechanically attached: The Panel System is attached to a structurally sound and acceptable substrate using engineered channel and mounting rails, anchors and connections as listed in the approved engineered project shop drawings and in accordance with contract documents.
- C. Design Requirements:
  - 1. Acceptable Substrates: The Panel System is installed over an acceptable substrate capable of supporting mechanical attachment and fasteners as engineered and listed in the approved project shop drawings and in accordance with contract documents.
    - a. CMU, concrete or brick.
    - b. Structural framed wall assembly with sheathing.
  - 2. Deflection of the substrate system shall not exceed L/240.
  - 3. The slope of inclined surfaces shall not be less than 6:12 (27°) and the length shall not exceed 12 in (305 mm).

- 4. The Panel System shall be held back from adjoining materials around openings and penetrations such as windows, doors, and other penetrations a minimum of 1/2"in (12.7 mm) for sealant application.
- 5. The Panels System shall be terminated a minimum of 2 in (51 mm) above hardscape and 8 in (203 mm) above softscape.
- 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.
- 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 Panel 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 Panel System.

#### 10. Joint Sealants:

- (Note to Specifier: Coordinate additional joint sealant requirements in Section 1.09.A.2 and 2.03.J.1.)
- a. Shall be approved by Panel System component manufacturer and compatible with the Panel System components.
- b. The sealant backer rod shall be closed cell.

#### D. Performance Requirements:

- 1. The Panel System and/or components shall have been tested as follows:
  - a. Durability

TEST	TEST METHOD	CRITERIA	RESULTS		
Abrasion Resistance	ASTM D968	No deleterious effects after 528 quarts (500 liters)	No deleterious effects after 1056 quarts (1000 liters)		
Accelerated Weathering	ASTM G155 Cycle 1	No deleterious effects after 2000 hours	No deleterious effects after 5000 hours		
	ASTM G 54 Cycle 1 (QUV)		No deleterious effects after 5000 hours		
Freeze-Thaw	ASTM E2485 Method	No deleterious effects after 60 cycles	Passed - No deleterious effects after 90 cycles		
	ASTM C67 modified	No deleterious effects after 60 cycles	Passed - No deleterious effects after 60 cycles		
	ASTM E2485 Method B	No deleterious effects after 10 cycles	Passed - No deleterious effects after 10 cycles		
Mildew Resistance	ASTM D3273	No growth during 28 day exposure period	No growth during 60 day exposure period		
Water Resistance	ASTM D2247	No deleterious effects after 14 days exposure	No deleterious effects after 42 days exposure		
Taber Abrasion	ASTM D4060	N/A	Passed 1000 cycles		
Salt Spray Resistance	ASTM B117	No deleterious effects after 300 hours exposure	No deleterious effects after 1000 hours exposure		
Water Penetration	ASTM E331	No water penetration beyond the inner-most plane of the wall 2 hours at 6.24 psf (299 Pa)	Passed		
Water Vapor Transmission	ASTM E96 Procedure B	Vapor permeable	EPS5 perm-inchBase Coat140 PermsFinish240 Perms		
Drainage Efficiency	ASTM E 2273	Minimum Drainage Efficiency of 90%	Passed		
Reinforcing Mesh Alkali Resistance of Reinforcing Mesh	ASTM E2098	120 pli (> 21dN/cm) retained tensile strength after exposure	Passed		

EPS (Physical				
Properties)	ASTM C303, D 1622	0.95-1.25 lb/ft <sup>3</sup> (15.2-20.0	Passed	
Density		kg/m <sup>3</sup> )		
Thermal Resistance	ASTM C177, C 518	4.0 @ 40 °F (4.4 °C)	Passed	
		3.6 @ 75 °F (23.9 °C)	Passed	
Water Absorption	ASTM C272	2.5 % max. by volume	Passed	
Oxygen Index	ASTM D2863	24% min. by volume	Passed	
Compressive Strength	ASTM D 621 Proc. A	10 psi (69 kPa) min.	Passed	
Flexural Strength	ASTM C203	25 psi (172 kPa) min.	Passed	
1. Base Coat perm value base	ed on Dryvit Genesis®			
2. Finish perm value based on Dryvit Quarzputz				
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#### b. Impact Resistance: In accordance with ASTM E 2486

Reinforcing Mesh <sup>1</sup> /Weight oz/yd² (g/m²)	Minimum Tensile Strengths	EIMA Impact Classification	_	Impact inge		ct Test sults
	_		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 <sup>™</sup> - 12 (407)	300 lbs/in (54 g/cm)	High	90-150	(10-17)	108	(12)
Panzer <sup>®</sup> 15 <sup>2</sup> - 15 (509)	400 lbs/in (71 g/cm)	Ultra High	>150	(>17)	162	(18)
Panzer 20 <sup>2</sup> - 20.5 (695)	550 lbs/in (98 g/cm)	Ultra High	>150	(>17)	352	(40)
Detail Mesh <sup>®</sup> Short Rolls - 4.3 (146)	150 lbs/in (27 g/cm)	n/a	n/a	n/a	n/a	n/a
Corner Mesh <sup>™</sup> - 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		averaged to bigh traffi	-)			

2. Used in conjunction with Standard Mesh (recommended for areas exposed to high traffic)

#### c. Fire Performance

TEST	TEST METHOD	CRITERIA	RESULTS
Surface Burning	ASTM E84	All components shall have a:	Passed
Characteristics		Flame Spread <u>&lt;</u> 25	
		Smoke Developed < 450	

#### 1.04 SUBMITTALS

- A. Product Data: The Panel System fabricator, panel fabricator or erector shall submit to the owner/architect the Panel System and related component manufacturer's product data sheets describing products, which will be used on this project.
- B. Shop Drawings: The Panel System fabricator or partner fabricator shall prepare and submit to the owner/architect complete engineered drawings showing wall layout, connections, fastener calculations, details, expansion joints, and installation sequence.
- C. Samples: The Panel System fabricator, partner fabricator or erector shall submit to the owner/architect samples as required in the contract documents for each finish, texture and color to be used on the project. The same tools and techniques proposed for the actual applications shall be used. Samples shall be of sufficient size to accurately represent each color and texture being utilized on the project.

#### **1.05 QUALITY ASSURANCE**

#### A. Qualifications:

- 1. Panel System and Related Components: All components shall be manufactured or sold by the Panel System component manufacturer and shall be purchased from the Panel System components manufacturer or its authorized distributors.
  - a. The Panel System components 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 the Panel System component manufacturer, shall be capable of producing the Expanded Polystyrene (EPS) in accordance with the current Panel System

manufacturer Specification for Insulation Board, and shall subscribe to the Panel System component manufacturer Third Party Certification and Quality Assurance Program.

- 3. Panel Fabricator or Partner Fabricator: Shall be a contractor experienced and competent in the fabrication of architectural wall panels and shall be trained and listed by the Panel System component manufacturer.
- 4. Panel Erector: Shall be experienced and competent in the installation of architectural wall panel systems.
- 5. Joint Sealant Contractor: Where specified herein below, shall be experienced and competent in the installation of commercial sealants.
- 6. Air/Water-Resistive Barrier Contractor: Where specified herein below, shall be experienced and competent in the installation of commercial air/water-resistive barrier and accessory components.
- B. Regulatory Requirements:
  - 1. The EPS insulation board shall be separated from the interior of the building by a minimum 15-minute thermal barrier in accordance with local building code requirements.
  - 2. The use and maximum thickness of EPS shall be in accordance with the applicable building code(s).

#### C. Mock-Up:

- 1. The panel fabricator, partner fabricator or erector 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 as defined by the contract documents.
- 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 as defined by contract documents.

#### 1.06 DELIVERY, STORAGE, HANDLING AND PROTECTION

- A. Delivery and Handling:
  - 1. Related components shall be delivered to the fabrication location in the original, unopened packages with labels intact.
  - 2. Upon delivery, the Panel Systems and related components shall be inspected for physical damage, freezing, or overheating. Questionable materials shall not be used.
  - 3. Panels and related components shall be stored at the fabrication location in a cool, dry location, out of direct sunlight, protected from weather and other sources of damage. Minimum storage temperature shall be 40 °F (4 °C) or as otherwise required by the Panel System component manufacturer.
  - 4. Panel and related component storage temperature shall not exceed 100 °F (38 °C).
- B. Panel System Protection:
  - 1. Panels and related components shall be protected at the fabrication location and project site, stored under cover, well ventilated, with entire panel protected from weather, excessive heat, dust, dirt, and ponding water.
  - 2. Panels shall be numbered in accordance with the approved engineered shop drawings visible on the panel edge and backside.
  - 3. Panels and related components shall be stored to prevent damage or distortion.
  - 4. Panels shall be packaged in crates or on skids to protect from damage during shipping to the job site.
  - 5. Panel edges shall be properly protected from damage during handling and transport.

#### **1.07 PROJECT CONDITIONS**

A. Project Site Requirements: The panel erector shall have access to electric power, and a clean work area with adequate space to deliver, handle, store and erect the Panel System in a safe manner in accordance with approved engineered shop drawings at the project site.

#### **1.08 SEQUENCING AND SCHEDULING**

A. Installation of the Panel System shall be coordinated with other construction trades and as directed by the general contractor or owner.

#### 1.09 WARRANTY

- A. Manufacturers' Limited Panel System Warranty:
  - (Note to Specifier: The warranty terms below are applicable to a Panel Fabricator. Where a Partner Fabricator is preferred, amend warranty terms below as outlined.)
  - 1. Manufacturer shall offer a limited material defect and labor to repair or replace defective material warranty stating the Products will be free from manufacturing defect and will perform as warranted in the manner specified for the stated term measured from the Date of Project Substantial Completion.
    - a. A pre-construction meeting, including representatives of the Manufacturer, the Fabricator or Erector, the Owner, and the Consultant (if applicable), shall be required prior to installation of the Panel System.
    - b. The term of this warranty may be extended for an additional 2 years with involvement on the project of a Manufacturer-approved, third-party consultant ("Consultant") engaged by the Owner or its authorized representative, at the Owner's sole expense. Inspection reports generated by the Consultant shall be made available to the Manufacturer and the Owner.
    - c. The warranty is available upon written request.
  - 2. The Panel System warranty shall additionally include the following for the term of the warranty or as specifically noted hereunder.

(Note to Specifier: An additional 2-year warranty term extension is available where Tremco (Company) Joinery and Sealants referenced in Section 2.03.J.1 are integrated. Amend warranty term below to 12-years.)

(Note to Specifier: For a Partner Fabricator, the warranty term is 15-years. An additional 2-year warranty term extension is available where Tremco (Company) Joinery and Sealants referenced in Section 2.03.J.1 are integrated. Amend warranty term below to 17-years.)

- 3. The Panel System warranty term shall be 10 years [12-years] [15-years] [17-years].
  - a. The Panel System will remain in a watertight condition when the Panel System is used in conjunction with approved Company Joinery and Sealants.
  - b. Finish will be UV fade resistant for 10 years, except for specially produced colors.
    - 1) Specially produced colors will be UV fade resistant for 5 years when high-performance colorants are used to formulate.
- B. Fabricator and Erector Warranty:
  - 1. The Panel or Partner Fabricator and Panel Erector shall provide a separate warranty in accordance with contract documents for all workmanship related to the proper design, detailing, engineering, shop drawings, fabrication, protection, transportation, craning, erection, installation and performance respectfully for the Panel System application. The Panel System component manufacturer shall not be responsible for workmanship associated with the engineering, fabrication or installation of the Panel System.

#### **1.10 MAINTENANCE**

- A. The Panel System is designed to require minimal maintenance. However, as with all building products, depending on location, some cleaning may be required. Refer to the Panel System component manufacturer's recommendation and guideline documentation 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. Basis of Design: The "Fedderlite M Panel System" composed of components as manufactured or supplied by Dryvit, 3735 Green Road, Beachwood, OH 44122, 800-556-7752, www.dryvit.com.
- B. All components of the Fedderlite M Panel System shall be supplied or obtained from Dryvit or its authorized distributors. Substitutions or additions of components 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 NTX: A vapor permeable, flexible, polymer-based non-cementitious water-resistive and air barrier coating available in Texture, Smooth, and Spray. See <u>DS180</u> and <u>DS181</u>.
- 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 <u>DS830</u> and <u>DS831</u>.
- 3. Dryvit Grid Tape<sup>™</sup>: An open weave fiberglass mesh tape with pressure sensitive adhesive.used in combination with Dryvit Backstop NT Texture.
- 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. Mechanical Attachment: Mechanical fasteners and/or anchors shall be as required to meet engineered pull out values as listed in approved engineered shop drawings and in accordance with contract documents.
- D. Insulation Board: Expanded Polystyrene meeting Dryvit Specification for Insulation Board, <u>DS131</u>.
  - 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
- E. Reinforcing Channels, Mounting Rails and Accessory Mounting Components: Used to reinforce the Fedderlite M Panels and provide structural attachments to the acceptable substrate and shall be a combination of the following as engineered and listed in project shop drawings:
  - 1. 6063 T6 grade aluminum Standard Fedderlite Aluminum channels.
  - 2. 6061 T6 grade Fedderlite M Aluminum Channel.
  - 3. 6061 T6 grade Fedderlite M Aluminum Mounting Rail.
  - 4. Shim / Spacer PVC horseshoe ship / spacer used to adjust planer tolerance irregularities in the acceptable substrate.
- F. 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
  - 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.
- G. Reinforcing Mesh: A balanced, open weave, glass fiber fabric treated for compatibility with other system components.

(Note to Specifier: Reinforcing meshes are classified by impact resistance and specified by weight and tensile strength as listed in Section 1.04.D.1.c.)

- 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.
- 3. Shall provide for ultra-high impact assembly incorporating Dryvit Standard Mesh over **[Panzer 15 oz./sy. mesh] [Panzer 20 oz./sy. mesh]** for all Fedderlite M Panel wall areas within 8'-0" of finish grade, balcony floor or as additional outlined in approved engineered shop drawings and in accordance with contract documents.
- H. Finish: Shall be the type, color and texture as selected by the architect/owner and shall be one or more of the following:

(Note to Specifier: Numerous finishes, textures, specialty finishes, coatings, aesthetics, and performance enhancement are available. Select and retain those that apply and delete those that do not apply to the project.)

- 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<sup>®</sup> DPR: Medium texture
  - c. Freestyle® DPR: Fine texture

- d. Sandpebble® DPR: Pebble texture
- e. Sandpebble® Fine DPR: Fine pebble texture
- 2. Hydrophobic (HDP<sup>™</sup>) Finishes: 100% acrylic coating with integral color and texture and formulated with hydrophobic properties:
  - a. Quarzputz<sup>®</sup> HDP
  - b. Sandblast<sup>®</sup> HDP
  - c. Sandpebble® HDP
  - d. Sandpebble<sup>®</sup> Fine HDP
  - e. Lymestone™ 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<sup>®</sup>: 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. Lymestone: 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 ${}^{\mathrm{M}}:$  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.
  - k. Wood Grain: A 100% acrylic-based finish created with a textured finish, a coating, a graining tool and a sealer providing an authentic woodgrain appearance.
- 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<sup>®</sup> Sandpebble
  - c. Weatherlastic® Sandpebble Fine
  - d. Weatherlastic® Adobe
- 6. Medallion Series PMR<sup>™</sup> (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<sup>®</sup> Advantage™
  - d. HDP™ Water-Repellent Coating
  - e. Weatherlastic® Smooth
  - f. Tuscan Glaze™
  - g. Color Prime
  - h. Prymit<sup>®</sup>
  - i. SealClear™
- J. Joint Sealants:

# (Note to Specifier: Where the additional 2-year warranty extension for use of Tremco (Company) Joinery and Sealants is desired, retain [Required] below in section 2.03.J.1. and delete section 2.03.J.2)

- 1. Silicone Sealant: [Required]
  - a. Tremco Spectrem 1: An ultra low modulus, high-performance, one-part, moisture-curing silicone joint sealant with physical properties making it an ideal sealant for sealing dynamic joints.
  - b. Tremco Spectrem 3: A general-purpose, low-modulus, high performance, one-part, neutral-cure, nonstaining, low dirt pickup, construction-grade silicone sealant.
  - c. Tremco Spectrem 4-TS: A multi-component, neutral-curing, non-staining, low dirt pick up, low-modulus silicone sealant specially formulated for use in dynamically moving building joints. Spectrem 4-TS offers color flexibility with the opportunity to tint the material on site.
  - d. Coordination for custom sealant colors is required.
  - e. Where deemed necessary, use TREMprime Silicone Porous Primer.
  - f. Baker materials shall be close cell type.
- 2. Polyurethane Sealant:
  - a. Tremco Dymonic FC: A one component hybrid polyurethane sealant. Where deemed necessary, use TREMprime Silicone Porous Primer for porous surfaces and TREMprime Silicone Metal Primer for metals or plastics. Coordinate for primer use as indicated.
  - b. Backer materials shall be closed cell type.
- 3. Exoair DualFlash: A gun and roller-grade liquid applied flashing membrane for use in rough openings or transitions in conjunction with ExoAir membranes
- K. Reference Documents:
  - 1. Dryvit Fedderlite M Panel System Installation Details, <u>DS949</u>
  - 2. Dryvit Fedderlite M Installation and Fabrication Instructions, DS958
  - 3. Dryvit EIFS Repair Procedures, DS498

#### PART III EXECUTION

#### 3.01 EXAMINATION

- A. Prior to installation of the Fedderlite M Panel System, the panel erector shall verify that the substrate:
  - 1. Is of a type listed in Section 1.03.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 M Panel System installation or performance.
- B. Prior to installation of the Fedderlite M Panel System, the architect or general contractor shall ensure that all required flashings and other waterproofing details have been completed, if such completion is required prior to the Fedderlite M Panel installation. Additionally, the erector 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 M Panel System Installation Details DS949, or as otherwise necessary to maintain a watertight envelope.
  - 2. Openings are flashed in accordance with the contract documents, Fedderlite M Panel System Installation Details <u>DS949</u> 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 M Panel System Installation Details <u>DS949</u>.
- C. Prior to the installation of the Fedderlite M Panel System, the erector contractor shall notify the general contractor, and/or architect, and/or owner of all discrepancies.

#### 3.02 PREPARATION

- A. The Fedderlite M Panels shall be protected by permanent or temporary means from inclement weather and other sources of damage prior to, during, and following installation until all permanent flashings and sealants are installed.
- B. Protect adjoining work and property during Fedderlite M Panel System installation.

#### 3.03 INSTALLATION

- A. The Fedderlite M panels shall be installed in accordance with current Fedderlite M Fabrication and Installation Instructions DS958, approved engineered shop drawings and contract documents.
- B. When installing the EPS insulation, the notched trowel method of adhesive application shall be applied in a vertical configuration.
- C. High impact meshes shall be installed to the panel face as specified at ground level, high traffic areas and other areas exposed to or susceptible to impact damage.
- D. Panel edge base coat surfaces in contact with sealant shall be coated with Dryvit Demandit Smooth or Color Prime. Refer to Dryvit DS153 for approved sealant options. Sealants shall not be applied directly to textured finish.

#### 3.04 FIELD QUALITY CONTROL

- A. The panel fabricator shall be responsible for the proper storage and application of the Fedderlite M Panel System components at the fabrication site.
- B. The panel erector shall be responsible for the proper storage, protection and installation of the Fedderlite M Panel System components at the project site
- C. Dryvit assumes no responsibility for on-site inspections or application of its products.
- D. If required, the panel fabricator or erector 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.
- E. If required, the EPS supplier shall certify in writing that the EPS meets Dryvit's specifications.
- F. Where required, the joint sealant contractor shall certify in writing that the joint sealant application is in accordance with the joint sealant manufacturer's and Dryvit's recommendations.
- G. Where required, the air/water-resistive barrier contractor shall certify in writing that the air/water-resistive barrier application is in accordance with the air/water-resistive barrier manufacturer's and Dryvit's recommendations.

#### 3.05 CLEANING

A. All excess Fedderlite M Panels, components, related materials, packaging and debris shall be removed from the job site by the contractor in accordance with contract provisions.

#### 3.06 PROTECTION

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

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For more information on <u>Dryvit Systems</u> or <u>Continuous Insulation</u>, visit these links.

