

OUTSULITE™ PANEL SYSTEM



Prefabricated, Insulated, Light Gauge Steel Stud
Exterior Wall Panels with an Air/Water Barrier

DS199

Outsulite Panel System Specifications



INTRODUCTION

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

UNITS

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

12.7 mm (1/2 in) 16 Kg/m³ (1.0 pcf)

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

WARNING

The Outsulite Panel System is designed to prevent water from entering the system. Specifications should be followed and proper details adhered to, in order to prevent water intrusion, resulting in possible damage to the system or other building elements. Care should be taken to ensure that all building elements, including without limitations, roof designs, windows, flashings, sealants, etc., are compatible with this system.

DISCLAIMER

Information contained in this specification conforms to standard detail and product recommendations for the installation of the Dryvit Outsulite 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, or engineering 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 13
OUTSULITE PANEL SYSTEM WITH
BACKSTOP® NT™**

PART I – GENERAL**1.01 SUMMARY**

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

1. Dryvit Outsulite Panel System Installation Details, [DS198](#)
2. Dryvit Outsulite Panel System Fabrication and Installation, [DS886](#)
3. Dryvit Tech21 Brochure, [DS210](#)
4. Dryvit Backstop NT, Vapor Permeable Air/Water Resistive Barrier, [DS455](#)
5. Dryvit Backstop NT Application Instructions, [DS181](#)
6. Dryvit Backstop NT-VB, Vapor Barrier Air/Water Resistive Barrier, [DS829](#)

B. Related Sections

1. Cold-Formed Metal Framing – Section 05 40 00
2. Joint Protection – Section 07 90 00
3. Flashing – Section 07 60 00
4. Water-Resistive Barriers – Section 07 25 00
5. Vapor Retarders – 07 26 13
6. Air Barriers – 07 27 26

1.02 REFERENCES

A. Section Includes

1. AATCC 127 Water resistance Test: Hydrostatic pressure test
2. ASTM B 117 (Federal Test Standard 141A Method 6061) Standard Practice for Operating Salt Spray (Fog) Apparatus
3. ASTM C 150 Standard Specification for Portland Cement
4. ASTM C 177 Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission
5. ASTM C 203 Standard Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal
6. ASTM C 272 Standard Test Method for Water Absorption of Core Materials for Sandwich Constructions
7. ASTM C 297 Standard Test Method for Flatwise Tensile Strength of Sandwich Constructions
8. ASTM C 303 Standard Test Method for Dimensions and Density of Preformed Block and Board-Type Thermal Insulation
9. ASTM C 518 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the HeatFlow Meter Apparatus
10. ASTM C 1177 Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing
11. ASTM C 1325 Standard Specification for Non-Asbestos Fiber-Mat Reinforced Cementitious Backer Units
12. ASTM C 1396 (formerly C 79) Standard Specification for Gypsum Board
13. ASTM D 968 (Federal Test Standard 141A Method 6191) Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive
14. ASTM D 1621 Standard Test Method for Compressive Properties of Rigid Cellular Plastics
15. ASTM D 1622 Standard Test Method for Apparent Density of Rigid Cellular Plastics
16. ASTM D 2247 (Federal Test Standard 141A Method 6201) Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity
17. ASTM D 2863 Standard Test Method for Measuring the Minimum Oxygen Concentration to Support Candle-Like Combustion of Plastics (Oxygen Index)
18. ASTM D 3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber
19. ASTM D 4060 Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser
20. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials
21. ASTM E 96 Standard Test Methods for Water Vapor Transmission of Materials
22. ASTM E 119 Standard Method for Fire Tests of Building Construction and Materials
23. ASTM E 330 Test Method for Structural Performance of Exterior Windows, Doors and Curtain Walls by Uniform Static Air Pressure Difference
24. ASTM E 331 Test Method for Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Uniform Static Air Pressure Difference.
25. 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

26. ASTM E 2134 Test Method for Evaluating the Tensile-Adhesion Performance of Exterior Insulation and Finish Systems (EIFS)
27. ASTM E 2430 Standard Specification for Expanded Polystyrene (EPS) Thermal Insulation Boards for use in Exterior Insulation and Finish System (EIFS)
28. 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
29. 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)
30. ASTM E 2568 Standard Specification for PB Exterior Insulation and Finish Systems
31. 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
32. ASTM G 154 Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials
33. ASTM G 155 (Federal Test Standard 141A Method 6151) Standard Practice for Operating-Xenon Arc Light Apparatus, for Exposure of Nonmetallic Materials
34. UBC Std 26-4 (Formerly UBC 17-6) Multi-Story Fire Evaluation of Exterior Non Load-Bearing Foam Plastic Insulated Wall Systems
35. NFPA 268 Standard Test Method for Determining Ignitibility of Exterior Wall Assemblies Using a Radiant Heat Energy Source.
36. 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
37. ULC S101 Standard Methods of Fire Endurance Tests of Building Construction Materials

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. Dryvit: Dryvit Systems, Inc., the manufacturer of the components of the Outsulite Panel System, a Rhode Island corporation.
- D. Expansion Joint: A structural discontinuity in the Outsulite Panel System.
- E. Finish: An acrylic-based coating, available in a variety of textures and colors that is applied over the base coat.
- F. Insulation Board: Expanded polystyrene (EPS) insulation board, which is affixed to the substrate.
- G. Panel Erector: The contractor who installs the panelized Outsulite Panel System.
- H. Panel Fabricator: The contractor who fabricates the panelized Outsulite Panel System.
- I. Reinforcing Mesh: Glass fiber mesh(es) used to reinforce the base coat and to provide impact resistance.
- J. Sheathing: A substrate in sheet form.
- K. Substrate: The material to which the Outsulite Panel System is affixed.
- L. Substrate System: The total wall assembly including the attached substrate to which the Outsulite Panel System is affixed.

1.04 SYSTEM DESCRIPTION

- A. General: The Dryvit Outsulite Panel System is an Exterior Insulation and Finish System, Class PB, consisting of an air/water-resistive barrier coating, an adhesive, expanded polystyrene insulation board, base coat, reinforcing mesh(es) and finish which is shop applied to prefabricated wall panels.
- B. Methods of Installation
 1. Panelized: The Outsulite Panel System shall be erected and connected to the building frame per approved shop drawings.
- C. Design Requirements
 1. Acceptable sheathing substrates for the Outsulite Panel System shall be:
 - a. Exterior grade gypsum sheathing meeting ASTM C 1396 (formerly C 79) requirements for water-resistant core or Type X core at the time of application of the Outsulite Panel System.
 - 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 C 1325.
 2. Panels shall be designed so that deflections shall not exceed 1/240 times the span.
 3. The substrate shall be flat within 1/4 in (6.4 mm) in a 4 ft (1.2 m) radius.
 4. The slope of inclined surfaces shall not be less than 6:12, and the length shall not exceed 12 in (305 mm).
 5. All areas requiring an impact resistance classification higher than “standard”, as defined by ASTM E 2486 (formerly EIMA Std. 101.86), shall be as detailed in the drawings and described in the contract documents. Refer to Section 1.04.D.1.d of this specification.

6. Expansion Joints
 - a. Design and location of expansion joints in the Outsulite Panel System is the responsibility of the project designer and shall be noted on the project drawings. As a minimum, expansion joints shall be placed at the following locations:
 - 1) Where prefabricated panels abut one another or dissimilar materials.
 - 2) Where expansion joints occur in the substrate system.
7. Where significant structural movement occurs such as floor lines, changes in roofline, building shape or structural system.
8. Terminations
 - a. Openings within panels shall be treated with the Dryvit AquaFlash System. Refer to Dryvit Outsulite Panel System Installation Details, [DS198](#).
 - b. The Outsulite Panels shall be held back from abutting materials a minimum of 3/4 in (19 mm) for sealant application. See Dryvit's Outsulite Panel System Installation Details, [DS198](#).
 - c. Spaces between panels shall be minimum 3/4 in (19 mm) to allow for erection tolerances and sealant joint installation.
 - d. Outsulite panels shall terminate a minimum of 8 in (203 mm) above finished grade or 2 in (51 mm) above pavement.
 - e. Sealants
 - 1) Shall be manufactured and supplied by others.
 - 2) Shall be compatible with Outsulite Panels. Refer to current Dryvit Publication, [DS153](#) for listing of sealants tested by sealant manufacturer for compatibility.
 - 3) The sealant backer rod shall be of closed cell material.
9. 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.
10. 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.
11. 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.
12. Flashing: Shall be provided at all locations as necessary to prevent water from entering behind the Outsulite Panel System.
13. 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.
14. Pre Base Coated EPS Shapes and Starter Boards: Shall be supplied by [Acrocore](#) or other approved shape manufacturer.

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D. Performance Requirements

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

a. 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 DMS: 30 Perms
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

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 B	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 A	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 after 2 hours at 6.24 psf (299 Pa)	Passed
Water Vapor Transmission	ASTM E 96 Procedure B	Vapor permeable	EPS Base Coat* 5 Perm-inch Finish** 40 Perms 40 Perms
* Base Coat perm value based on Dryvit Genesis®			
** Finish perm value based on Dryvit Quarzputz®			

c. Structural

TEST	TEST METHOD	CRITERIA	RESULTS
Tensile Bond	ASTM C 297/E 2134	Minimum 15 psi (104 kPa) – substrate or insulation failure	Minimum 19.1 psi (132 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)* 16 in o.c. framing, ½ in sheathing screw attached at 8 in (203 mm) o.c.
* All Dryvit components remain intact – for higher wind loads contact Dryvit Systems, Inc.			

d. Impact Resistance: In accordance with ASTM E 2486 (formerly EIMA Standard 101.86).

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 ¹ - 15 (509)	400 lbs/in (71 g/cm)	Ultra High	>150	(>17)	162	(18)
Panzer 20 ¹ - 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/	n/a	n/a	n/a
Corner Mesh™ - 7.2 (244)	274 lbs/in (49 g/cm)	n/a	n/	n/a	n/a	n/a
* It shall be colored blue and bear the Dryvit logo for product identification						
1. Shall be used in conjunction with Standard Mesh (recommended for areas exposed to high traffic)						

e. Fire performance

TEST	TEST METHOD	CRITERIA	RESULTS
Fire Resistance	ASTM E 119	No effect on the fire resistance of a rated wall assembly	Passed 1 hour Passed 2 hour
Ignitability	NFPA 268*	No ignition at 12.5 kw/m ² at 20 minutes	Passed
Full Scale Multi-Story Fire Test	UBC Std. 26-4 (formerly 17-6)	1. Resist vertical spread of flame within the core of the panel from one story to the next 2. Resist flame propagation over the exterior surface 3. Resist spread of vertical flame over the interior surface from one story to the next 4. Resist significant lateral spread of flame from the compartment of fire origin to adjacent spaces	Passed
Intermediate Multi-Story Fire Test	NFPA 285* (UBC 26-9)	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

2. The Outsulite 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) 3.6 @ 75 °F (23.9 °C)	Passed 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	ASTM E 84*	25 max.	Passed
Smoke Developed		450 max.	Passed

* ASTM E 2568 Standard Specification for PB Exterior Insulation and Finish Systems

1.05 SUBMITTALS

- A. Product Data – The panel fabricator shall submit to the owner/architect the manufacturer's product data sheets describing products, which will be used on this project.
- B. Shop Drawing for Panelized Construction: 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 panel fabricator shall submit to the owner/architect two (2) samples of the Outsulite Panel System 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. Test Reports – When requested, the panel fabricator shall submit to the owner/architect copies of selected test reports verifying the performance of the Outsulite Panel System.

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 9001:2015 and ISO 14001:2015 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 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 and shall possess a current Outsulite Panel System Contractor Certificate issued by Dryvit Systems, Inc.
 - 4. Panel Erector: Shall be experienced and competent in the installation of architectural wall panel systems.
 - 5. Machine Coated Dryvit EPS Shapes and Starter Boards: Shall be supplied by [Acrocore](#) or other 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 codes.
- C. Certification
 - 1. The Outsulite Panel System shall be recognized for the intended use by the applicable building code(s).
- D. Mock-Up
 - 1. The panel fabricator 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 application. 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 panel fabrication location.

1.07 DELIVERY, STORAGE AND HANDLING

- A. All Dryvit materials shall be delivered to the fabrication location in the original, unopened packages with labels intact.
- B. Upon arrival, materials shall be inspected for physical damage, freezing, or overheating. Questionable materials shall not be used.
 - 1. Materials 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 as follows:
 - a. DPR, PMR™, HDP™, Weatherlastic® and E™ Finishes, Color Prime™, Primus®, Genesis® and NCB™: 40 °F (4 °C).
 - b. For other products, refer to specific product data sheets.
 - 2. Maximum storage temperature shall not exceed 100 °F (38 °C). Prior to erection, Outsulite Panels shall be stored under cover, well ventilated, protected from inclement weather, dust, dirt and ponding water.

1.08 PROJECT CONDITIONS

- A. Existing Conditions - The panel erector shall have access to electric power, clean water, and a clean work area at the location where the Outsulite Panels will be installed.
- B. Adequate space shall be available to the panel erector to safely handle, store and erect the panels in a safe manner in accordance with contract documents.

1.09 SEQUENCING AND SCHEDULING

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

1.10 WARRANTY

Dryvit Systems, Inc. shall provide a limited materials warranty upon written request. 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 designer selected by the purchaser shall be responsible for 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 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 minimize maintenance. However, as with all building products, depending on location, some cleaning may be required. See Dryvit publication, [DS152](#) on Cleaning & Recoating.
B. Sealants and Flashings should be inspected on a regular basis and repairs made as necessary.

PART II – PRODUCTS**2.01 MANUFACTURER**

A. All components of the Outsulite 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:
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 102 mm (4 in) wide by 100 yds (91 m) long.
- B. Flashing Materials: Used to protect substrate edges at terminations.
1. Liquid Applied: An extremely flexible water-based polymer material, ready for use.
 - a. Shall be AquaFlash and AquaFlash Mesh.
 2. Sheet Type:
 - a. Shall be Flashing Tape and Surface Conditioner.
 - 1) Dryvit Flashing Tape™: A high density polyethylene film backed with a rubberized asphalt adhesive available in rolls 4 in (102 mm), 6 in (152 mm) and 9 in (229 mm) wide by 75 ft (23 m) long.
 - 2) Dryvit Flashing Tape Surface Conditioner™: A water-based surface conditioner and adhesion promoter for the Dryvit Flashing Tape.
- C. Adhesives: Used to adhere the EPS to the substrate, shall be compatible with the substrate and the EPS.
1. Cementitious: A liquid polymer-based material, which is field mixed with Portland cement for use over non wood-based substrates.
 - a. Shall be Primus, or Genesis
 2. Ready mixed: A dry blend cementitious, copolymer-based product, field mixed with water for use over non wood-based substrates.
 - a. Shall be Primus DM, Genesis DM, Genesis® DMS, Rapidry DM 35-50 or Rapidry DM50-75.
- D. Insulation Board: Expanded polystyrene meeting Dryvit Specification for Insulation Board, [DS131](#).
1. Thickness of insulation board shall be minimum 3/4 in (19 mm) and shall be maintained at all locations. **Note: Dryvit recommends that a minimum of 1 in (25 mm) thick insulation board be installed to maintain the minimum thickness after rasping, reveals are installed, etc.**
 2. The insulation board shall be manufactured by a board supplier listed by Dryvit Systems, Inc.
- E. Machine Coated Dryvit EPS Shapes and Starter Boards: Shall be supplied by [Acrocore](#) or other manufacturer that subscribes to the Dryvit third party certification and quality assurance program.
- 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

- 2. Noncementitious: A factory-mixed, fully formulated, water-based product.
 - a. Shall be NCB.
- 3. 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 materials.

Note: Reinforcing meshes are classified by impact resistance and specified by weight and tensile strength as Section 1.04.D.1.d.

 - 1. Shall be Standard, Standard Plus, Intermediate, Panzer 15, Panzer 20, Detail Mesh® and Corner Mesh.
 - 2. Shall be colored blue for product identification bearing the Dryvit logo
- H. 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. 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

7. 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
8. 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 Outsulite Panel System, the panel erector shall verify that the building structure is of a type that can accommodate attachment of the Outsulite Panels.

3.02 PREPARATION

- A. The Outsulite Panel materials shall be protected by permanent or temporary means from inclement weather and other sources of damage until erected on the building.
- B. Protect adjoining work and property during Outsulite Panel installation.

3.03 INSTALLATION

- A. The Outsulite Panel System shall be applied in accordance with the current Dryvit Outsulite Fabrication and Installation Instructions DS886.
- B. The overall minimum base coat thickness shall be sufficient to fully embed the reinforcing mesh. The recommended method is to apply the base coat in two (2) passes.
- C. Sealant shall not be applied directly to textured finishes or base coat surfaces. Dryvit Outsulite Panel System base coat surfaces in contact with sealant shall be coated with Demandit Smooth or Color Prime.
- D. When installing the EPS insulation, the notched trowel method of adhesive application shall be applied in a vertical configuration.
- E. High impact meshes shall be installed as specified at ground level, high traffic areas and other areas exposed to or susceptible to impact damage.
- F. The installation of Machine Coated Dryvit EPS Shapes and Starter Boards shall be in accordance with Dryvit Publication [DS854](#).

3.04 PANEL STORAGE AND HANDLING

- A. At the panel fabrication location and job site, as well as during transport, the panels shall be under cover, well ventilated, with entire panel protected from weather, dust, dirt and ponding water.

3.05 FIELD QUALITY CONTROL

- A. The panel fabricator shall be responsible for the proper application of the Outsulite Panel System materials.
- B. The panel erector shall be responsible for the proper erection of the panels in accordance with approved shop drawings and contract documents.
- C. Dryvit assumes no responsibility for on-site inspections of its products.
- D. If required, the fabricator 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. 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.

3.06 CLEANING

- A. All excess Outsulite Panel System materials shall be removed from the job site by the panel fabricator in accordance with contract provisions and as required by applicable law.
- B. All surrounding areas, where the Outsulite Panel System has been installed, shall be left free of debris and foreign substances resulting from the panel erector's work.

3.07 PROTECTION

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