

OUTSULATION® MINERAL WOOL SYSTEM

**An Exterior Insulation and Finish System with Moisture Drainage
that incorporates Mineral Wool Continuous Insulation and an
Air/Water-Resistive Barrier**

Outsulation Mineral Wool System Specifications CSI Format Section 07 24 19

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 ("**Notes to Specifier**" in parentheses and bolded), the specifier may easily select the portions of the comprehensive guide specification which are pertinent to the project. "Notes to Specifier" should then be deleted from the final specification document. This guide specification follows the Construction Specification Institute's MasterFormat and SectionFormat protocols.

It will be prudent to place certain parts of the Dryvit Outsulation Mineral Wool 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 / Tremco CPG Inc technical services.

WARNING

The Outsulation Mineral Wool System is designed as a drainage wall EIF system and is detailed to discharge incidental moisture from within 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 envelope elements, including without limitations, roofs, windows, flashings, sealants, etc., are compatible with this EIF system.

The Outsulation Mineral Wool System is an engineered assembly of multiple compatible components: A fluid-applied air and water-resistive barrier, accessory materials, adhesive, rigid mineral wool board, base coat, reinforcing mesh, and finish coat.

DISCLAIMER

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 is responsible for all decisions pertaining to design, structural capability, mechanical attachment, details, and the like. The Exterior Insulation and Finish System with Moisture Drainage Manufacturer has prepared guidelines in the form of specifications, installation details, application instructions and product data sheets to facilitate the design process only. The Manufacturer 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 the Manufacturer or otherwise, or for any changes which purchasers, specifiers, designers, or their appointed representatives may make to the Manufacturer's published comments.

Information contained in this specification conforms to standard detail and product recommendations for the installation of the Dryvit Outsulation Mineral Wool 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 installation 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:

**3735 Green Road
Beachwood, OH 44122
800-556-7752
www.dryvit.com**

* The Trained Contractor Certificate referenced in Sections 1.04.D and 1.06.B.2, of this guide specification indicates certain employees of the EIFS sub-contractor company have been instructed in the proper application of Dryvit products and have received copies of Dryvit's Application Instructions and Specifications. The Trained Contractor Program is not an apprenticeship or endorsement. Each trained contractor is an independent company experienced in the trade and bears responsibility for its own quality. Dryvit assumes no liability for the performance of a trained contractor.

**DRYVIT
MANUFACTURER'S GUIDE SPECIFICATION
CSI FORMAT SECTION 07 24 19
OUTSULATION® MINERAL WOOL SYSTEM
EXTERIOR INSULATION AND FINISH SYSTEM WITH MOISTURE DRAINAGE**

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:

1. This document is to be used in preparing specifications for an Exterior Insulation and Finish System (EIFS) with Moisture Drainage including:
 - a. An integral fluid applied air and water-resistive membrane barrier compatible with the substrate surface
 - b. Accessory materials required for treating sheathing joints, fasteners, penetrations, rough openings, and material transitions compatible with substrate surfaces and the adhesive application of the EIF system.
 - c. Approved mineral wool continuous insulation (ROCKWOOL Frontrock®).
 - d. Approved fasteners, washer plates and fastening patterns for mechanical attachment of mineral wool insulation boards.
 - e. Joint sealants compatible with specified EIFS for use in all exterior envelope joint waterproofing, as specified.
 - f. A comprehensive single source limited EIF system warranty.

B. Related Requirements:

(Note to Specifier: Delete any sections below not relevant to this project and add others as required.)

1. 03 30 00 Cast-in-place Concrete
2. 03 40 00 Precast Concrete
3. 04 20 00 Unit Masonry
4. 05 40 00 Cold-formed Metal Framing
5. 06 11 00 Wood Framing
6. 06 11 13 Engineered Framing Systems

(Note to Specifier: Engineered framing system components such as parapet cap nailer and rough opening buck framing are available from Prebuck LLC, a division of Tremco CPG Inc. Coordinated specification of these items can be incorporated into the overall Dryvit /Tremco CPG Inc. limited warranty.)

7. 06 16 00 Sheathing
8. 07 27 00 Fluid-Applied Air and Water-Resistive Barriers

(Note to Specifier: This specification contains options for EIF System Fluid-Applied Air and Water-Resistive Barrier (AWRB) and Accessory Material options. Coordinate with Section 07 27 00 as required where an EIF System AWRB option is selected for use behind other continuous insulation (CI) types and/or cladding areas as outlined herein below in Section 2.02.B.1.)

9. 07 62 00 Sheet Metal Flashing and Trim
10. 07 92 00 Joint Sealants

(Note to Specifier: This specification contains recommended joint sealant options. Coordinate with Section 07 92 00 as required where a specific joint sealant option is selected as outlined herein below in Section 2.02.C.)

11. 08 40 00 Entrances, Store Fronts, and Curtain Walls
12. 08 50 00 Windows

1.02 REFERENCES

(Note to Specifier: Delete any standards below not relevant to this project and add others as required.)

A. Reference Standards:

1. ASTM Standards:

- a. ASTM B117 Standard Practice for Operating Salt Spray (Fog) Apparatus
- b. ASTM C150 Standard Specification for Portland Cement
- c. ASTM C297 Standard Test Method for Flatwise Tensile Strength of Sandwich Constructions
- d. ASTM C356 Standard Test Method for Linear Shrinkage of Preformed High-Temperature Thermal Insulation Subjected to Soaking Heat
- e. ASTM C510 Standard Test Method for Staining and Color Change of Single- or Multicomponent Joint Sealants
- f. ASTM C612 Standard Specification for Mineral Fiber Block and Board Thermal Insulation
- g. ASTM C639 Standard Test Method for Rheological (Flow) Properties of Elastomeric Sealants
- h. ASTM C661 Standard Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer
- i. ASTM C665 Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing
- j. ASTM C679 Standard Test Method for Tack-Free Time of Elastomeric Sealants
- k. ASTM C719 Standard Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants Under Cyclic Movement (Hockman Cycle)^{1, 2}
- l. ASTM C793 Standard Test Method for Effects of Laboratory Accelerated Weathering on Elastomeric Joint Sealants
- m. ASTM C794 Standard Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants
- n. ASTM C920 Standard Specification for Elastomeric Joint Sealants
- o. ASTM C1104 Standard Test Method for Determining the Water Vapor Sorption of Unfaced Mineral Fiber Insulation
- p. ASTM C1177 Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing
- q. ASTM C1184 Standard Specification for Elastomeric Joint Sealants
- r. ASTM C1246 Standard Test Method for Effects of Heat Aging on Weight Loss, Cracking, and Chalking of Elastomeric Sealants After Cure
- s. ASTM C1248 Standard Test Method for Staining of Porous Substrate by Joint Sealants
- t. ASTM C1305 Standard Test Method for Crack Bridging Ability of Liquid-Applied Waterproofing Membrane
- u. ASTM C1338 Standard Test Method for Determining Fungi Resistance of Insulation Materials and Facings
- v. ASTM C1382 Standard Test Method for Determining Tensile Adhesion Properties of Sealants When Used in Exterior Insulation and Finish Systems (EIFS) Joints
- w. ASTM C1396 Standard Specification for Gypsum Board
- x. ASTM C1397 Standard Practice for Application of Class PB Exterior Insulation and Finish System (EIFS) and EIFS with Drainage
- y. ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension
- z. ASTM D624 Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers
- aa. ASTM D968 Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive
- bb. ASTM D1970 Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection
- cc. ASTM D2247 Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity
- dd. ASTM D2898 Standard Test Method for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing
- ee. ASTM D3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber
- ff. ASTM D3330 Standard Test Method for Peel Adhesion of Pressure-Sensitive Tape
- gg. ASTM D4060 Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser

- hh. ASTM D4541 Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers
 - ii. ASTM E72 Standard Methods of Conducting Strength Tests Of Panels For Building Construction
 - jj. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials
 - kk. ASTM E96 Standard Test Methods for Water Vapor Transmission of Materials
 - ll. ASTM E119 Standard Method for Fire Tests of Building Construction and Materials
 - mm. ASTM E136 Standard Test Method for Assessing Combustibility of Materials Using a Vertical Tube Furnace at 750° C
 - nn. 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
 - oo. ASTM E330 Test Method for Structural Performance of Exterior Windows, Doors and Curtain Walls by Uniform Static Air Pressure Difference
 - pp. ASTM E331 Test Method for Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Uniform Static Air Pressure Difference
 - qq. ASTM E1233 Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls by Cyclic Air Pressure Differential
 - rr. 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
 - ss. ASTM E2134 Test Method for Evaluating the Tensile-Adhesion Performance of Exterior Insulation and Finish Systems (EIFS)
 - tt. ASTM E2178 Standard Test Method for Air Permeance of Building Materials
 - uu. ASTM E2273 Test Method for Determining the Drainage Efficiency of Exterior Insulation and Finish Systems (EIFS) Clad Wall Assemblies
 - vv. ASTM E2357 Standard Test Method for Determining Air Leakage of Air Barrier Assemblies
 - ww. ASTM E2485 Standard Test Method for Freeze-Thaw Resistance of Exterior Insulation and Finish Systems (EIFS) and Water-Resistive Barrier Coatings
 - xx. ASTM E2486 Standard Test Method for Impact Resistance of Class PB and PI Exterior Insulation and Finish Systems (EIFS)
 - yy. ASTM E2568 Standard Specification for PB Exterior Insulation and Finish Systems
 - zz. ASTM E2570 Standard Test Method for Evaluating Water-Resistive Barrier (WRB) Coatings Used Under Exterior Insulation and Finish Systems (EIFS) or EIFS with Drainage
 - aaa. ASTM G154 Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials
 - bbb. ASTM G155 Standard Practice for Operating-Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials
2. National Fire Protection Association (NFPA) Standards:
 - a. NFPA 268 Standard Test Method for Determining Ignitability of Exterior Wall Assemblies Using a Radiant Heat Source
 - b. NFPA 285 Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load Bearing Wall Assemblies Containing Combustible Components

1.03 PERFORMANCE REQUIREMENTS

A. EIFS Performance: Comply with the following:

1. Bond Integrity: Free from bond failure within EIFS components or between system and supporting wall construction, resulting from exposure to fire, wind loads, weather, or other in-service conditions.
2. Weathertightness: Resistant to water penetration from exterior into water-drainage EIFS and assemblies behind it or through them into interior of building that results in deterioration of thermal-insulating effectiveness or other degradation of EIFS and assemblies behind it, including substrates, supporting wall construction, and interior finish, and including a means that allows water entering an EIFS assembly to drain to the exterior.

- B. EIF System with Moisture Drainage: Provide EIF System with Moisture Drainage having physical properties, structural performance and fire resistance that comply with the following:
1. Accelerated Weathering:
 - a. Lamina tested in accordance with ASTM G153 Cycle 1 or ASTM G 155 Cycle 1
 - 1) No deleterious effects after 5000 hours exposure
 2. Freeze-Thaw:
 - a. Lamina tested in accordance with ASTM E2485 Method A
 - 1) No deleterious effects after 90 cycles exposure
 3. Salt-Spray Resistance:
 - a. Lamina tested in accordance with ASTM B117
 - 1) No deleterious effects after 1000 hours exposure
 4. Water Resistance:
 - a. Tested in accordance with ASTM D2247
 - 1) No growth after 42 days exposure
 5. Water Penetration:
 - a. Tested in accordance with ASTM E331
 - 1) No water penetration beyond the inner-most plane of the wall 2 hours at 6.24 psf (299 Pa) exposure
 6. Abrasion Resistance:
 - a. Tested in accordance with ASTM D968, Method A
 - 1) No cracking, checking, or loss of film integrity after exposure to 1056 quarts (500 L) of sand exposure
 7. Fire Endurance
 - a. Tested in accordance with ASTM E119
 - 1) Maintain fire resistance of known, rated wall assembly
 8. Full-Scale Multi-Story Fire Test
 - a. Tested in accordance with NFPA 285
 - 1) Resistance to vertical spread of flame within the core of the panel from one story to the next.
 - 2) Resistance to flame propagation over the exterior face of the system.
 - 3) Resistance to vertical spread of flame over the interior (room side) surface from one story to the next.
 - 4) Resistance to lateral spread of flame from the compartment of fire origin to adjacent spaces.
 9. Ignition Resistance
 - a. Tested in accordance with NFPA 268
 - 1) No surface ignition when exposed to 3950 BTU-h/ft² (12.5 kW/m²).
 10. Surface Burning Characteristics:
 - a. Tested in accordance with ASTM E84
 - 1) Flame Spread <25, Smoke Development <450 (Class A)
 11. Impact Resistance:
 - a. Tested in accordance with ASTM E2486

Reinforcing Mesh ^a Weight: oz.yd ² (g/m ²)	Minimal Tensile Strengths	EIMA Impact Classification	EIMA Impact Range in-lbs (Joules)	Impact Test Results in-lbs (Joules)
Standard ^b 4.3 (146)	150 lbs/in (36 g/cm)	Standard	25-49 (3-6)	36 (4)
Standard Plus 6 (200)	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 ^b (509)	400 lbs/in (71 g/cm)	Ultra High	>150 (>17)	162 (18)
Panzer 20 ^b (550)	550 lbs/in (98 g/cm)	Ultra High	>150 (>17)	352 (40)
a. It shall be colored blue and bear the Dryvit logo for product identification. b. The use of Standard Mesh is not permitted unless Panzer Mesh is used in conjunction with Standard Mesh (recommended for areas exposed to high traffic).				

- 12. Drainage Efficiency:
 - a. Tested in accordance with ASTM E2273
 - 1) Minimum Drainage Efficiency of 90%

- 13. Transverse wind Load:
 - a. Tested in accordance with ASTM E330
 - 1) Minimum 60 psf (2.9 kPa) over 16-inch oc. framing, 1/2 inch sheathing, screw attached at 8 in (203 mm) oc.

- 14. Alkali Resistance of Reinforcing Mesh
 - a. Tested in accordance with ASTM E2098
 - 1) Reinforcing Mesh meets 120 pli (21 dN/cm) retained tensile strength

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Pre-Construction Meetings
 - (Note to Specifier: **The warranty shall require a pre-construction meeting including representatives of the Manufacturer, the Applicator, the Owner, and the Consultant (if applicable) prior to installation of the Products. Work in this section requires coordination with related sections and trades.**)
 - 1. The EIF system installer shall coordinate with the General Contractor to schedule, invite and administer a pre-construction meeting including but not limited to the architect of record, consultant(s), EIF system, accessory materials and sealant manufacturer representatives and the owner to assure required integration of products selected as specified herein and for proper sequencing and installation detailing.

- B. Coordinate for related specification and integration of Selected Materials as referenced in Section 2.02.B and 2.02.C herein.

- C. Sequencing
 - 1. Provide jobsite grading prior to installation of Exterior Insulation and Finish System with Moisture Drainage so that the system may be terminated no less than 6 inches above final grade or as required by code.
 - 2. Coordinate installation of sheathing board and accessory materials, flashing, foundation waterproofing, roofing membrane, windows, doors, and other penetrations of the exterior walls to provide a continuous air and water-resistive membrane barrier.
 - 3. Provide protection of rough openings before installing windows, doors, and other penetrations of the exterior walls.
 - 4. Coordinate installation of windows and doors so air and water-resistive barrier membrane accessory materials, transitions, flashings, etc. are connected to them to provide a continuous barrier.
 - 5. Install window and door head flashings immediately after windows and doors are installed.

6. Install diverter flashings wherever water can enter the wall assembly to direct water to the exterior.
7. Install copings and sealants immediately after installation of the Exterior Insulation and Finish System with Moisture Drainage and when EIFS coatings are dry.
8. Attach penetrations through Exterior Insulation and Finish System to structural support and provide water-tight seals at penetrations.
9. Coordinate with framing / sheathing trades for stud framing locations in relationship to mineral wool insulation layout and mechanical fastener locations. Vertical edge of mineral wool insulation boards shall not extend greater than 8" maximum from center line of mechanical fastener.

1.05 ACTION SUBMITTALS / INFORMATIONAL SUBMITTALS

- A. Submit product data as required by Section 01 33 00, Administrative Requirements.
- B. Submit shop drawings for panelized EIFS with Moisture Drainage showing wall layout, connections, details, expansion joints, and installation sequence.
- C. Submit two (2) samples of the Exterior Insulation and Finish System with Moisture Drainage for each finish, texture, and color to be used on the project. Use the same tools and techniques proposed for the actual installation. Make the samples of sufficient size to accurately represent each color and texture being utilized on the project.
- D. Submit a current copy of the manufacturer's Trained Contractor Certificate for the EIF system specified. Submit Owner/Architect-requested test results verifying the performance of the Exterior Insulation and Finish System with Moisture Drainage.
- E. Submit a copy of the manufacturer's installation details and application instructions.

1.06 CLOSEOUT SUBMITTALS

- A. Submit a copy of the manufacturer's recommended maintenance and repair manual.
- B. Submit a copy of the Exterior Insulation and Finish System with Moisture Drainage manufacturer's comprehensive single source limited warranty.

1.07 QUALITY ASSURANCE

(Note to Specifier: Delete any qualification below not relevant to this project such as [Panel Fabrication] and [Panel Erector]. Add others as required.)

- A. Manufacturer's Qualifications:
(Note to Specifier: Coordinate with section 01 43 00, Quality Requirements.)
 1. A member in good standing of the EIFS Industry Members Association (EIMA).
 2. Manufacture Exterior Insulation and Finish System with Moisture Drainage materials at a facility covered by a current ISO 9001:2015 and ISO 14001:2015 certification. Certification of the facility is done by a registrar accredited by the American National Standards Institute, Registrar Accreditation Board (ANSI-RAB).
- B. Contractor Qualifications:
 1. Knowledgeable in the proper installation of the Exterior Insulation and Finish System with Moisture Drainage incorporating Mineral wool Insulation.
 2. Possess a current copy of the manufacturer's Trained Contractor Certificate for the EIF system specified.

3. Successfully complete a minimum of three (3) projects of similar scope and scale to the specified project.

C Insulation Board Manufacturer Qualifications:

1. Listed by EIF System Manufacturer, and capable of producing the Mineral Wool in accordance with the current EIF System Manufacturer's requirements.
2. Subscribe to the Dryvit Third Party Certification and Quality Assurance Program.

D. [Panel Fabricator Qualifications:]

1. Experienced and competent in the fabrication of architectural wall panels.
2. Possess a current Outsulation Mineral Wool System Trained Contractor Certificate* issued by Dryvit / Tremco CPG Inc.

E. [Panel Erector Qualifications:]

1. Experienced and competent in the installation of architectural wall panel EIF systems.
2. Shall be:
 - a. The panel fabricator or
 - b. An erector approved by the panel fabricator or
 - c. An erector under the direct supervision of the panel fabricator.

F. Mock-Up:

1. Provide the owner/architect with a mock-up for approval.
 - a. 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.
 - b. Prepared with the same products, tools, equipment and techniques required for the actual applications. Use finish from the same batch that is being used on the project.
 - c. Available and maintained at the jobsite.

G. Regulatory Requirements:

1. Comply with local building codes for the use and thickness of Mineral Wool insulation board.

H. Inspections:

1. Cooperate with independent, third-party inspectors when required by code or by contract documents.

1.08 DELIVERY, STORAGE AND HANDLING

1. Deliver all Exterior Insulation and Finish System with Moisture Drainage components and materials to the job site in the original, unopened packages with labels intact.
2. Inspect all Exterior Insulation and Finish System with Moisture Drainage components and materials upon arrival for physical damage, freezing or overheating. Do not use questionable materials.
3. Store all Exterior Insulation and Finish System with Moisture Drainage components and materials at the jobsite in a cool, dry location, out of direct sunlight, protected from weather and other sources of damage. Maintain minimum and maximum storage temperature as stated in the product data sheets or specifications for the materials selected. **NOTE: Minimize exposure of materials to temperatures over 90 °F (32 °C). Finishes exposed to temperatures over the published maximum storage temperature for even short periods may exhibit skinning and increased viscosity and should be inspected prior to use. Refer to ROCKWOOL storage and handling**

4. Protect all products from inclement weather and direct sunlight.

1.09 SITE CONDITIONS

A. Ambient Conditions

1. Do not apply wet materials during inclement weather unless appropriate protection is provided. Protect materials from inclement weather until they are completely dry.
2. Verify the minimum air and wall surface temperatures 24 hours before and at the time of application as stated in the product data sheets or specifications for the materials selected.
3. Maintain these temperatures with adequate air ventilation and circulation for a minimum of 24 hours (48 hours for specific Specialty Finishes) thereafter, or until the products are completely dry.
(Note to Specifier: 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 EIF system.)

1.10 WARRANTY

A. Manufacturers' Limited EIF System Warranty

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 Applicator, the Owner, and the Consultant (if applicable), shall be required prior to installation of the Products.
 - 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 EIF 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 EIF system warranty extension is available where Tremco (Company) Joinery and Sealants referenced in Section 2.02.C are integrated. Amend warranty term below to [12-years].)

(Note to Specifier: An 18-year EIF system warranty is available when the Tremco ExoAir 230 Air and Water-Resistive Membrane Barrier and Dymonic 100 Accessory Material are selected as referenced in Section 2.02.B.1 and 2.02.B.2 below. Delete those AWRB's and Accessory Materials that do not apply. Amend warranty term below to [18-years]. Where Tremco (Company) Joinery and Sealants referenced in Section 2.02.C are also integrated. Amend warranty term below to [20-years].)
 - a. The EIF system warranty term shall be 10 years **[12-years] [18-years] [20-years]**.
 - b. The EIFS will remain in a watertight condition when the EIFS is used in conjunction with approved Company Joinery and Sealants.
 - c. The EIFS will drain incidental moisture between the air/water-resistive barrier and the insulation board.
 - 1) Remedy includes repair or replacement of any sheathing or framing member that is damaged as a result of the EIF system failing to drain incidental moisture between the secondary weather barrier and the insulation board.
 - d. 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.
 - e. The EIF system shall be eligible to receive a renewal of the original warranty if the Owner satisfactorily completes the specific renovation requirements published by the Manufacturer.

B. Installer Warranty

1. EIF system Installer shall provide a separate minimum **[1-year warranty] [x-year – as desired by specifier]** for all workmanship related to the proper installation and drainage performance of the EIFS application. Manufacturer shall not be responsible for workmanship associated with the installation of Exterior Insulation and Finish System with Moisture Drainage.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Manufacturers List:

1. Dryvit / Tremco CPG Inc., 3735 Green Road Beachwood, OH 44122, 800-556-7752, www.dryvit.com.
2. ROCKWOOL, 8024 Esquesing Line, Milton, Ontario L9T 6W3, 800-265-6878, www.rockwool.com.
3. EJOT® Fastening Systems L.P., 48679 Alpha Drive, Suite 110, Wixom, MI 48393, 248-773-7453, www.ejot.com.
4. Wind-Lock Corporation, 2692 Leisczs Bridge Rd. Leesport, PA 19533

B. Substitution Limitations:

1. All components of the Outsulation® Mineral Wool System shall be supplied or obtained from their respective manufacturers as listed in Section 2.01.A herein above and their authorized distributors. Substitutions or additions of materials manufactured or supplied by others will void the EIF system warranty.
2. Alternate EIF system manufacturers must demonstrate equivalency for all elements of EIF system such as but not limited to:
 - a. Material components, compatibility and testing
 - b. Standard and specialty finishes;
 - c. Color and texture matching; and,
 - d. Warranty criteria as specified herein.
3. Submit alternate EIF system manufacturer’s complete data highlighting equivalency for review through Substitution Requirements as defined in Division 1.

2.02 DESCRIPTION

A. System Description:

1. The Dryvit Outsulation Mineral Wool System is an Exterior Insulation and Finish System (EIFS) with Moisture Drainage, consisting of:
 - a. An Air and Water-Resistive Membrane Barrier
 - b. Accessory Materials
 - c. Adhesive – installed in vertical notch trowel pattern to facilitate drainage
 - d. Mineral Wool Insulation Board with Pre-Wrapped Drainage Starter Boards
 - e. Approved fasteners, washer plates and fastening patterns for mechanical attachment.
 - f. Base Coat
 - g. Reinforcing Mesh
 - h. Finish Coat
2. Joint Sealants as specified herein below

B. Materials:

1. Fluid-Applied Air and Water-Resistive Barrier:

(Note to Specifier: Options for air and water-resistive barrier (AWRB) are outlined below for integration into the EIF system. Evaluate AWRB options for film thickness,

permeability, application temperature, exposure, and desired warranty term specific to project requirements. exposure, and desired warranty term specific to project requirements. Select [AWRB] that applies and delete those not applicable. Consult with manufacturer(s) as necessary.)

(Note to Specifier: Air and water-resistive barriers (AWRB) are evaluated and code compliant for use behind other insulation / cladding assemblies wall areas. There are opportunities for coordination, sequencing, reduced trade, elimination of transitions between dissimilar barriers and warranty implications, etc. through the design and specification for the EIF system AWRB to be integrated as a single use AWRB for the entire project where applicable. Select the [AWRB] that best applies to the project conditions for EIFS and where applicable indicate for use behind other continuous insulation (CI) / cladding assemblies that may apply. Coordinate this integration with related specification sections 07 27 00 accordingly.)

a. Permeable:

- 1) **[Dryvit Backstop® NTX]**: A standard film vapor permeable, low-temperature, flexible, polymer-based non-cementitious water-resistive and air barrier coating available in Texture and Smooth versions. Backstop NTX can be installed in ambient air and substrate surface temperatures of 25 °F (-3.88 °C) and rising for a minimum 24 hours and exposed for up to 6 months during the construction process. Backstop NTX Texture is additionally used for treatment of sheathing board joints, inside / outside corners, and spotting of fastener heads.

(Note to Specifier: Coordinate item 2.02.B.a.2) below for 18-year EIF system warranty as referenced in Section 1.10.A.2. Delete section 2.02.B.1.a.1 above and section 2.02.B.1.b below. Retain only section 2.02.B.a.2) below.)

- 2) **[Tremco ExoAir® 230]**: A thick film synthetic, permeable, elastomeric air/water-resistive membrane barrier designed to be roller or spray applied. ExoAir 230 can be installed in ambient air and substrate surface temperatures of 40 °F (4 °C) and rising, shall be protected from rain and washout prior to drying and can be exposed for up to 12 months during the construction process. ExoAir is specially formulated for design options requiring assemblies that have been evaluated for NFPA 285.

b. **[Non-Permeable – Vapor Retarder / Barrier:]**

(Note to Specifier: Specification and use of an exterior vapor barrier within a wall assembly is the responsibility of the project designer. Consult with the EIF system manufacturer for appropriate use and consider a water vapor transmission analysis.)

- 1) **Dryvit Backstop® NT-VB (Vapor Barrier)**: A standard film non-permeable, Class I, low-temperature, flexible, polymer-based non-cementitious water-resistive and air barrier coating available in Texture and Spray versions. Backstop NT-VB can be installed in ambient air and substrate surface temperatures of 40 °F (4 °C) and rising for a minimum 24 hours and exposed for up to 6 months during the construction process. Backstop NT-VB Texture is additionally used for treatment of sheathing board joints, inside / outside corners and spotting of fastener heads.

2. Accessory Materials for Fluid Applied Air and Water-Resistive Barrier (AWRB):

(Note to Specifier: Options for AWRB Accessory Materials are outlined below for integration into the EIF system. Review products below, consult with manufacturer(s) as necessary and select those that apply and delete those that are not applicable; or leave list intact allowing the EIF system installer to select as their preference and/or what is most appropriate for the project conditions. See note to specifier below where the [18-year] ExoAir warranty is required.)

- a. Provide compatible accessory materials as required by project conditions for substrate, rough opening and penetration preparation, bridge expansion joints in substrate, material transitions and flashing integration to produce a complete air and water-resistant assembly.

- 1) Dryvit Grid Tape™: An open weave fiberglass mesh tape with pressure sensitive adhesive. Used in combination with Backstop NTX Texture or Backstop NT-VB Texture for treating sheathing board joints and inside / outside corners and preparing rough openings and penetrations. Backstop NTX Texture or Backstop NT-VB Texture is used alone for spotting fastener heads.
- 2) Dryvit AquaFlash®: Fluid-applied, water-based polymer transition membrane. Used in preparing rough openings and penetrations, bridging expansion joints in substrate, material transitions and flashing integration. AquaFlash can be installed in ambient air and substrate surface temperatures of 40 °F (4 °C) and rising for 24 hours.
 - i. Dryvit AquaFlash Mesh: Polyester reinforcing mesh for use with AquaFlash.
- 3) Dryvit Backstop Flash and Fill: A flexible, waterproof, low temperature gun applied material. Used in substrate preparation, treating sheathing board joints, inside/outside corners and fastener heads, preparing rough openings and penetrations, bridging expansion joints in substrate material transitions and flashing integration. Backstop Flash and Fill can be installed in ambient air and substrate surface temperatures of 32 °F (0 °C) and rising for 24 hours. **Note: Dryvit Backstop Flash and Fill may only be used with Dryvit Backstop NTX air/water-resistive barrier.**

(Note to Specifier: Coordinate item 2.02.B.2.4) below for 18-year EIF system warranty as referenced in Section 1.09.A.2. Delete sections 2.02.B.2.a.1) thru 2.02.B.2.a.3) above. Retain section 2.02.B.2.a.4) and 2.02.B.2.5) below.)

- 4) Tremco Dymonic 100: A high-performance, high-movement, single-component, medium-modulus, low-VOC, UV-stable, non-sag, gun applied polyurethane sealant. Used in substrate preparation, treating sheathing board joints and inside/outside corners and fastener heads, preparing rough openings and penetrations, bridging expansion joints in substrate, material transitions and flashing integration. Dymonic 100 can be installed in ambient air and substrate surface temperatures of 40 °F (4 °C) and rising. Where Dymonic 100 must be applied in temperatures below 40 °F, (4 °C), please refer to the Tremco Technical Bulletin for Applying Sealants in Cold Conditions (No. S-08-44 rev 1) that can be found at www.tremcosealants.com.
- 5) Tremco ExoAir 2011 Mesh: An open weave, glass-reinforcing fabric consisting of glass fiber yarn saturated with synthetic resins. The glass fiber will not rot, mildew, or wick water into the body of the coating material. Tremco 2011 is used as a reinforcing membrane where ExoAir 230 is used as a flashing material.
- 6) Tremco ExoAir 110AT: A 18-mil composite impermeable membrane that is comprised of 12 mils of butyl and 6 mils of HDPP facer. Used in limited applications as a membrane flashing that will not interfere with the adhesive application of EIF system.

3. Adhesives:

- a. Liquid polymer-based adhesive field mixed with Portland cement.
 - 1) Dryvit Genesis® – only
 - i. Shall be applied to the back of the insulation board in a vertical notch trowel pattern to create a drainage plane.
 - ii. Allow vertical ribbons of adhesive to sufficiently dry/harden to resist flattening, disruption of bond and drainage cavities behind the mineral wool insulation boards formation prior to installation of mechanical fasteners.

4. Mineral Wool Insulation Board:

(Note to Specifier: ROCKWOOL Frontrock® mineral wool insulation board is available in mono density and dual density. Dual density has a higher density facing developed to better facilitate mechanical fastening and planar tolerance. Select the mineral wool board option – [Mono] or [Dual] Density – below, thickness desired, and delete remaining options. Edit listing below to reference specific product of choice for this project.)

- a. Shall be ROCKWOOL Frontrock® - Refer to ROCKWOOL literature for additional performance criteria.
 - 1) **[Frontrock Mono Density]:** 8.5 lbs/ft³ (136kg.m³)
 - i. Thickness shall be **[1.5"], [2"], [2.5"], [3"], [4"], [as indicated on Drawings]**, 2 ft x 4 ft (609.6 mm x 1219.2 mm) maximum size

- 2) **[Frontrock Dual Density]:** 9.3 lbs/ft³ (150kg.m³) outer layer and 5.9 lbs/ft³ (95kg.m³) inner layer
 - i. Thickness shall be **[2.5"]**, **[3"]**, **[3.5"]**, **[4"]**, **[as indicated on Drawings]**, 2 ft x 4 ft (609.6 mm x 1219.2 mm) maximum size
 Note: Reference Table 1 for Wind Load Data
 - b. ROCKWOOL Frontrock™ material compliance and testing requirements:
 - 1) Comply with ASTM C612, Type IVA.
 - 2) R-Value: R-4.0 / inch at 75° (RSI – 0.705) in accordance with ASTM C518.
 - 3) Compressive Strength: Minimum 522 lb/ft² (25 kPa) at 10% compression in accordance with ASTM C165.
 - 4) Non-Combustible: Classified non-combustible in accordance with ASTM E136
 - 5) Surface Burning Characteristics: flame spread index = 0, smoke development index ≤ 15 in accordance with ASTM E84.
 - 6) Vapor Permeability: Minimum 38 perm (2187 ng/Pa.s.m²) in accordance with ASTM C665.
 - 7) Fungi Resistance: Zero (0) mold growth in accordance with ASTM C1338.
 - 8) Linear Shrinkage: Not to exceed 0.51% at 1200° in accordance with ASTM C356.
 - c. Material Ingredient Disclosure: Insulation board shall provide the following:
 - 1) Health Product Declaration (HDP)
 - 2) LFI Declare Red List approval label.
5. Pre-Coated Mineral Wool Insulation Drainage Starter Boards and Edge Trim:
- (Note to Specifier: Pre-Coated Mineral Wool Insulation Drainage Starter Boards are required for all horizontal edge terminations. Edge Trims are recommended. Both provide for properly back wrapped and encapsulated EIF System termination edges typically scheduled to drain where horizontal and receive primers and sealants. Starter Boards and Edge Trims must be produced with Dryvit materials to be covered under the EIF System Warranty. Machine Pre-Coated are manufactured by and/or supplied by a fabricator approved by Dryvit / Tremco Inc. Non-Machine Pre-Coated are produced and supplied by the installing contractor in accordance with Dryvit details, application instructions and contract documents. Retain one or both [items] below as desired or delete the [item] not desired.)**
- a. **[Machine Pre-Coated Starter Boards and Edge Trims]:** Shall be produced with ROCKWOOL Frontrock® and the remaining materials as manufactured by Dryvit / Tremco CPG Inc. and supplied by Dryvit / Tremco CPG Inc. or a fabricator approved by Dryvit / Tremco CPG Inc. and integrated in accordance with Outsulation Mineral Wool EIF System Details DS983.
 - b. **[Non-Machine Pre-Coated Starter Boards and Edge Trims]:** Shall be produced with ROCKWOOL Frontrock® and the remaining materials manufactured by Dryvit / Tremco CPG Inc., supplied by EIF System installing contractor and integrated in accordance with Outsulation Mineral Wool EIF System Details DS983.
6. Mechanical Fasteners:
- (Note to Specifier: Mechanical Attachment of the Outsulation Mineral Wool (OMW) EIF System is required. Surface and Countersunk (subsurface) options are available. Countersunk washer plate attachment can reduce potential for thermal bridging based upon fastening method (see section 6b) and visual ghosting of fastening pattern across the EIF system surface. Selections for Screw Fastener and Washer Plate combinations and Fastening Pattern shall be based on underlying wall assembly / substrate type and tested negative wind load results referenced in Table 1 below. Determine project specific wind load resistance requirements. Select [Screw Fastener] type, [Washer Plate] type and [Fastening Pattern] in coordination with Mineral Wool Insulation Type and Thickness based on tested negative wind load values in Table 1 below. Delete remaining items.)**
- a. Screw Fastener: Shall be corrosion resistant screw fastener as manufactured by EJOT® Fastening Systems L.P. or Wind-Lock Corporation. Select screw fastener type and coordinate for length and penetration into wall assembly / substrate based on specific project requirements. Combine with Washer Plate type as required or indicated. Consult manufacturer's technical services as needed.
 - 1) **[Steel Framing]:** Shall be EJOT TKR-4-4.8 or Wind-Lock ST series with minimum #8 corrosion resistant screw. Provide no less than 3/8" fastener penetration into framing member with at least 3 threads exposed on the back-side of the structural member.

- 2) **[Wood Framing]:** Shall be EJOT JT2-ST2-6.0 or Wind-Lock WLMS series with minimum #8 corrosion resistant screw. Provide no less than 3/4" fastener penetration into framing member.
 - 3) **[Concrete or CMU Masonry]:** Shall be EJOT STR U 2G pre-assembled screw fastener and washer with tube expansion anchor combination or Wind-Lock MT series pre-assembled screw fastener and washer plate. Coordinate and install with proper pre-drilling as required.
- b. Washer Plate: Shall be glass reinforced plastic washer plate as manufactured by EJOT® Fastening Systems L.P. or Wind-Devil 2 plate as manufactured by Wind-Lock Corporation. Select washer plate type and coordinate for surface flush or countersunk application based on specific project requirements. Combine with Screw Fastener as required or indicated. Consult with manufacturer's technical services as needed.
- 1) **[Surface Flush Washer]:**
 - i. **[Steel or Wood Framing]:** Shall be **[EJOT SBH-T 2G Washer. Fastening Pattern shall be [min. 6 (six)] fasteners per 2 ft x 4 ft insulation board.] [Wind-Lock Wind-Devil 2 Washer. Fastening Pattern shall be 9 (nine) fasteners per 2 ft x 4 ft insulation board.]**
 - ii. **[Concrete or CMU Masonry]:** Shall be **[EJOT STR U 2G pre-assembled screw fastener and washer with tube expansion anchor combination. Fastening Pattern shall be [min. 6 (six)] fasteners per 2 ft x 4 ft insulation board.] [Wind-Lock Wind-Devil 2 Washer. Fastening Pattern shall be 9 (nine) fasteners per 2 ft x 4 ft insulation board.]**
 - 2) **[Countersunk Washer]:** Shall require minimum 3.0" thick mineral wool board. Install with STR-Tool 2GE countersunk setting tool.
 - i. **[Steel or Wood Framing]:** Shall be EJOT STR-H Washer for **[steel] [wood]** framing with Ejothem STR mineral wool plug. Fastening Pattern shall be **[6 (six)]** fasteners per 2 ft x 4 ft insulation board.
 - ii. **[Concrete and CMU Masonry]:** Shall be EJOT STR U 2G pre-assembled screw fastener and washer with tube expansion anchor combination with Ejothem STR mineral wool plug. Fastening Pattern shall be **[6 (six)]** fasteners per 2 ft x 4 ft insulation board.
- c. Mechanical screw fasteners and washer plate combinations shall be installed into insulation board after the vertical notched trowel adhesive is fully cured. Mechanical Fasteners may be initially installed to support the insulation board while the adhesive cures and then permanently installed. DO NOT BACK-OUT, REMOVE AND/OR RELOCATE FASTENERS leaving open penetrations through the underlying air/water-resistive barrier / substrate.

Table 1 - Fastener Requirement per Mineral Wool Type, Thickness and Fastener Pattern			
Mineral Wool Type	Minimum Mineral Wool Thickness	Fastener & Washer Plate	Fasteners per 2' x 4' Board
Dual Density (DD)	2.5"	EJOT DABO Screw TKR-4-4.8 / EJOT Washer SBH-T 2G 60/25	6 or 9
Mono Density (MD)	1.5"		
Dual Density (DD)	2.5"	Min. #8 corrosion-resistant steel screws with Wind-Lock Wind-Devil 2 washer plate	9
Mono Density (MD)	1.5"		
Notes: 1. Refer to the applicable ESR for tested wind load assemblies. 2. Design Professional of Record shall be solely responsible for interpretation and structural design based on specific project requirements. 3. Mineral Wool Insulation installation includes both primary Mechanical Attachment and supplemental vertical notch trowel Adhesive. 4. Countersunk Fasteners require a minimum insulation board thickness of 3-inches. 5. Contact Dryvit Engineering for additional information to wind resistance when project wind pressures exceed published values.			

7. Base Coat:

- a. Liquid polymer-based base coat field mixed with Portland cement.
 - 1) Dryvit Genesis® (pail mix) – substitutions of other products shall be prohibited

8. Reinforcing Mesh:

(Note to Specifier: Reinforcing meshes are classified by impact resistance and specified by weight and tensile strength. Please refer to the table below and/or confer with your manufacturer’s representative to assure specification of mesh appropriate for the anticipated use of your project.)

- a. Open-weave, glass fiber fabric treated for compatibility with other EIF system materials.
- b. Standard Plus Mesh shall be required for all EIFS field wall areas throughout. Additionally, incorporate as second layer over Dryvit Panzer Mesh for all Ultra High Impact Mesh Assemblies as required or where indicated on contract drawings.

(Note to Specifier: It is imperative to specify for impact resistance level and location within the EIF system and within the contract documents. The paragraph below represents Dryvit and EIFS industry recommended minimums. Retain or modify the paragraph below as necessary to address project conditions. Select Panzer 15 oz. or Panzer 20 oz. based on impact resistance required.)
- c. Provide for ultra-high impact mesh assembly including **[Panzer 15 mesh] [Panzer 20 mesh]** for all EIFS clad wall areas within 8'-0" of grade and where additionally indicated on contract drawings.

Reinforcing Mesh ^a /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 ^b - 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 TM - 12 (407)	300 lbs/in (54 g/cm)	High	90-150	(10-17)	108	(12)
Panzer [®] 15 ^b - 15 (509)	400 lbs/in (71 g/cm)	Ultra High	>150	(>17)	162	(18)
Panzer 20 ^b - 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 TM - 7.2 (244)	274 lbs/in (49 g/cm)	n/a	n/a	n/a	n/a	n/a

a. It shall be colored blue and bear the Dryvit logo for product identification.
 b. The use of Standard Mesh is not permitted unless Panzer Mesh is used in conjunction with Standard Mesh (recommended for areas exposed to high traffic).

9. Mesh Corner Bead Accessory:

- a. Incorporate combined PVC corner and alkaline-resistant fiberglass mesh corner bead as an alternative to double wrapping primary outside corners. 2209MESH as manufactured by Plastic Components, Inc., www.plasticcomponents.com, 800-327-7077. Install in accordance with manufacturer’s application instructions.

10. Finish:

(Note to Specifier: Numerous finish, specialty finish, performance enhancements, textures and coatings are available. Select those [Finish(es)] that apply and delete those that do not.)

- a. **[DPR Finish]:** Water-based, acrylic coating with integral color and texture formulated with Dirt Pickup Resistance (DPR) chemistry.
 - 1) Available textures:
 - a) Quarzputz[®] DPR – open texture
 - b) Sandblast[®] DPR – medium texture
 - c) Freestyle[®] DPR – fine texture
 - d) Sandpebble[®] DPR – pebble texture
 - e) Sandpebble[®] Fine – fine pebble texture
- b. **[Hydrophobic (HDPTM) Finishes]:** 100% acrylic coating with integral color and texture and formulated with hydrophobic properties:
 - 1) Available textures:
 - a) Quarzputz[®] HDP
 - b) Sandblast[®] HDP
 - c) Sandpebble[®] HDP
 - d) Sandpebble[®] Fine HDP
 - e) LimestoneTM HDP
- c. **[E-Finish]:** Lightweight, water-based acrylic coating with integral color and texture; formulated with Dirt Pickup Resistance (DPR) chemistry.
 - 1) Available textures:
 - a) Quarzputz[®] E
 - b) Sandpebble[®] E
 - c) Sandpebble Fine[®] E
- d. **[Weatherlastic Finishes]:** Elastomeric, water-based acrylic coating with integral color and texture formulated with Dirt Pickup Resistance (DPR) chemistry:
 - 1) Available textures:
 - a) Weatherlastic[®] Quarzputz
 - b) Weatherlastic[®] Sandpebble
 - c) Weatherlastic[®] Sandpebble Fine
 - d) Weatherlastic[®] Adobe

11. **[Specialty Finishes and Veneers]:**

- a. Ameristone – multi-colored quartz aggregates 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.
- j. TerraNeo – acrylic-based finish with large mica chips and multi-colored quartz aggregates. Ferros™ Finish: - a water-based finish 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.

12. [Coatings, Primers, and Sealants]:

- 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™

C. Joint Sealants:

(Note to Specifier: Where the additional 2-year EIF system warranty extension for use of Tremco (Company) Joinery and Sealants is desired, retain [Required] below in section 2.02.C.1. and delete section 2.02.C.2. Coordinate with Related Section 07 92 00.

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, non-staining, 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.
 - a. Coordination for custom sealant colors are required.
- d. Where deemed necessary, use of TREMprime Silicone Porous Primer.
- e. Backer rod and/or bond breaker material shall be closed cell type.

2. [Polyurethane Sealant]: Coordinate for primer use as indicated.

- 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.

D. Jobsite-Mixed Materials:

- 1. Portland cement: verify is Type I, II or 1L meeting ASTM C 150, white or gray in color, fresh and free of lumps.
- 2. Water: verify is clean and free of foreign matter.

E. Reference Documentation for Outsulation Mineral Wool System:

- 1. Data Sheet – DS980
- 2. Details – DS983
- 3. Application Instructions – DS981

PART 3 EXECUTION

3.01 EXAMINATION

A. Verification of Conditions:

1. Ensure that site, material, and environmental conditions comply with relevant provisions of ASTM C 1397 "Standard Practice for Application of Class PB Exterior Insulation and Finish Systems".
2. Verify access to electric power, clean water and a clean work area at the location where the Dryvit materials are to be applied.
3. Verify the designed deflection limit of the wall assembly / substrate system does not exceed 1/240 times the span.
4. Verify substrate is flat within 1/4 in (6.4 mm) in a 4 ft (1.2 m) radius.
5. Verify substrate is sound, dry, connections are tight; has no surface voids, projections, or other conditions that may interfere with the Exterior Insulation and Finish System with moisture drainage installation or performance.
6. Verify the slope of inclined surfaces are not less than 6:12 (27 °) where the length of the slope does not exceed 12 in (305 mm) or 3:12 (14 °) where the length of the slope does not exceed 4 in (102 mm).
7. Verify metal roof flashings have been installed in accordance with Sheet Metal and Air Conditioning Contractors National Association (SMACNA) standards.
8. Verify all rough openings are flashed in accordance with the Exterior Insulation and Finish System with Moisture Drainage manufacturer's installation details, or as otherwise necessary to prevent water penetration. Verify chimneys, balconies and decks have been properly flashed as necessary to prevent water penetration.
9. Verify windows and doors are installed and flashed per manufacturer's requirements and installation details.
10. Notify general contractor of all discrepancies prior to the installation of the Exterior Insulation and Finish System with moisture drainage.

(Note to Specifier: Design and location of expansion joints in the Exterior Insulation and Finish System with Moisture Drainage is the responsibility of the project designer and as designated on contract drawings.)
11. Verify that expansion joints are to be installed:
 - a. Where expansion joints occur in the substrate or underlying structural system.
 - b. Where building expansion joints occur.
 - c. At floor lines in wood frame construction.
 - d. At floor lines of non-wood framed buildings where significant vertical movement is expected.
 - e. Where the Exterior Insulation and Finish System with moisture drainage abuts dissimilar materials.
 - f. Where the substrate type changes.
 - g. Where prefabricated panels abut one another.
 - h. In continuous elevations at intervals not exceeding 30 ft (9.14 m).
 - i. Where significant structural movement occurs, such as changes in roof line, building shape or vertical and lateral translations of the underlying structural system.
12. 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.

3.02 PREPARATION

- A. Protect the Outsulation Mineral Wool EIF System materials by permanent or temporary means from inclement weather and other sources of damage prior to, during, and following application until completely dry.**

- B. Protect adjoining work and property during installation of the Outsulation Mineral Wool EIF System.
- C. Prepare the substrate 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. Install the EIF system in accordance with ASTM C1397 and the Dryvit Outsulation Mineral Wool System Application Instructions DS983.
- B. Install mineral wool insulation to properly prepared substrate with vertical notch trowel adhesive method to the back of the insulation board. Ensure that the insulation board joints are butted tight, and faces / edges are level and flush. Ensure dual density mineral wool boards are installed with correct side facing out - ROCKWOOL branding showing. Allow adhesive to dry in advance of installation of mechanical fasteners. Install mechanical fasteners in type as required and fastening pattern as specified. Pre-spot all washer locations with base coat.
- C. Where insulation board joint edges cannot be leveled flush by other means, apply base coat as necessary to fill in and level out with adjacent insulation board surface and allow base coat to dry. Apply base coat as a skim coat to level the undulating face of insulation board and allow to dry.
- D. Apply base coat sufficient to fully embed the reinforcing mesh (Standard Plus (6oz/yd) or greater) and allow to dry. Apply a second base coat layer as required to provide a well prepared and level surface for application of selected texture finish coat.
- E. Install high impact reinforcing mesh as specified at ground level, high traffic areas and other areas exposed to or susceptible to impact damage as designated on contract drawings.
- F. Install Machine Coated Dryvit EPS Shapes in accordance with Dryvit Publications DS981 and DS983.
- G. Apply sealant to base coat surface prepared in accordance with [DS153](#).

3.04 SITE QUALITY CONTROL

- A. EIF system manufacturer assumes no responsibility for on-site inspections or application of its products.
- B. EIF system sub-contractor to certify in writing the quality of work performed relative to the substrate system, details, installation procedures, and as to the specific products used.
- C. Mineral wool insulation supplier, if requested, to certify in writing that the mineral wool insulation complies with the mineral wool insulation and EIF system manufacturer's requirements.
- D. The sealant contractor, if requested, certify in writing that the sealant material, accessories and application comply with the sealant and EIF system manufacturer's requirements.

3.05 CLEANING

- A. Remove all excess EIF system materials from the job site by the contractor in accordance with contract provisions and as required by applicable law.
- B. Leave all surrounding areas, where the EIF system has been applied, free of debris and foreign substances resulting from the EIFS sub-contractor's work.

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ROCKWOOL™ is a trademark of the ROCKWOOL Group in USA and ROXUL Inc. in Canada.

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For more information on [Dryvit Systems](#) or [Continuous Insulation](#)
visit these links.

