

# OUTSULATION® HDCI SECUROCK® EXOAIR® 430 SYSTEM

A High Durability Exterior Wall Insulation and Finish System with Moisture Drainage that Incorporates Continuous Insulation over a Coated Fiberglass Mat Gypsum Sheathing with Integral Weather-Resistant Barrier and Air Barrier, Accessory Materials, Ultra-High Impact Mesh Assembly and Silicone Sealants

Outsulation® HDCl Securock® ExoAir® 430 System

Specifications CSI Compliant



#### INTRODUCTION

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

It will be prudent to place certain parts of the Dryvit Outsulation HDCI Securock ExoAir 430 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 Systems, Inc.

#### WARNING

The Outsulation HDCI System is designed as a drainage wall 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 system where Securock ExoAir 430 sheathing and Tremco Commercial Sealants and Waterproofing Products are not used as specified herein.

The Outsulation HDCI Securock ExoAir 430 System is an engineered assembly of multiple compatible components: a coated fiberglass mat gypsum sheathing panel with integral weather-resistant barrier and air barrier with polyurethane accessory materials, adhesive, rigid insulation board, base coat, reinforcing mesh creating an ultra high impact mesh assembly, finish coat and silicone sealants.

#### **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, detail, structural capability, attachment details, shop drawings and the like. The High Durability 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 HDCI Securock ExoAir 430 System products as of the date of publication of this document and is presented in good faith. Dryvit Systems, Inc. assumes no liability, expressed or implied, as to the architecture, engineering or 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 Systems, Inc., at:

One Energy Way West Warwick, RI 02893 (401) 822-4100 www.dryvit.com

The Trained Contractor Certificate referenced in 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 Systems, Inc. assumes no liability for the performance of a trained contractor.

## DRYVIT SYSTEMS, INC. MANUFACTURER'S GUIDE SPECIFICATION CSI FORMAT SECTION 07 24 19

### OUTSULATION® HDCI SECUROCK® EXOAIR® 430 SYSTEM HIGH DURABILITY 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 a High Durability Exterior Insulation and Finish System (EIFS) with Moisture Drainage including:
  - a. Coated fiberglass mat gypsum sheathing panel with integral weather-resistant barrier and air barrier compatible with the adhesive application of the EIFS system.
  - b. Accessory materials required for treating sheathing joints, fasteners, penetrations, rough openings, and material transitions compatible with the adhesive application of the EIFS system.
  - c. Ultra high impact mesh assembly over entire EIFS cladding wall area.
  - d. Joint sealants compatible with specified EIFS for use in all exterior envelope joint waterproofing.
  - e. Comprehensive single source limited system warranty inclusive of EIFS, sheathing panel, accessory materials, puncture resistance and sealants.

#### B. Related Requirements:

(Note to Specifier: please 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 16 00	Sheathing
7.	07 27 26	(Note to Specifier: Coordinate for coated fiberglass mat gypsum sheathing with integral weather-resistant barrier and air barrier sheathing as manufactured by USG Corporation and including Accessory Materials as specified.)  Fluid-Applied Air Barriers (Note to Specifier: Coordinate with Section 061656 as outlined above for coated fiberglass mat gypsum sheathing with integral weather-resistant barrier and air barrier sheathing referenced in Section 2.02.B.1 as manufactured by Tremco Incorporated.)
8.	07 62 00	Sheet Metal Flashing and Trim
9.	07 92 00	Joint Sealants
		(Note to Specifier: Coordinate for Joint Sealant integration with product(s) referenced in Section 2.02.C as manufactured by Tremco Incorporated.)
10.	08 40 00	Entrances, Store Fronts, and Curtain Walls
11.	08 50 00	Windows

#### 1.02 REFERENCES

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

#### A. Reference Standards:

1. ASTM Standards:

a.	ASTM B 117	Standard Practice for Operating Salt Spray (Fog) Apparatus
b.	ASTM C 67	Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile
C.	ASTM C 150	Standard Specification for Portland Cement
d.	ASTM C 297	Standard Test Method for Flatwise Tensile Strength of Sandwich Constructions

		zwor in 100 Gyotom Gpoomounous Con Compilant
e.	ASTM C 473	Standard Test Methods for Physical Testing of Gypsum Panel Products
f.	ASTM C 510	Standard Test Method for Staining and Color Change of Single- or
		Multicomponent Joint Sealants
g.	ASTM C 518	Standard Test Method for Steady-State Thermal Transmission Properties by
3		Means of the Heat Flow Meter Apparatus
h.	ASTM C 639	Standard Test Method for Rheological (Flow) Properties of Elastomeric
•••	710 TW 0 000	Sealants
i.	ASTM C 661	Standard Test Method for Indentation Hardness of Elastomeric-Type Sealants
١.	ACTIVI C 001	by Means of a Durometer
i	ASTM C 679	Standard Test Method for Tack-Free Time of Elastomeric Sealants
j.		
k.	ASTM C 719	Standard Test Method for Adhesion and Cohesion of Elastomeric Joint
	A CTM C 702	Sealants Under Cyclic Movement (Hockman Cycle)1, 2
l.	ASTM C 793	Standard Test Method for Effects of Laboratory Accelerated Weathering on
	A CTN 4 C 7 C 4	Elastomeric Joint Sealants
	ASTM C 794	Standard Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants
	ASTM C 920	Standard Specification for Elastomeric Joint Sealants
0.	ASTM C 1063	Standard Specification for Installation of Lathing and Furring to Receive Interior
		and Exterior Portland Cement Plaster.
	ASTM C 1177	Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing
q.	ASTM C 1184	Standard Specification for Elastomeric Joint Sealants
r.	ASTM C 1246	Standard Test Method for Effects of Heat Aging on Weight Loss, Cracking, and
		Chalking of Elastomeric Sealants After Cure
S.	ASTM C 1248	Standard Test Method for Staining of Porous Substrate by Joint Sealants
t.	ASTM C 1305	Standard Test Method for Crack Bridging Ability of Liquid-Applied
		Waterproofing Membrane
u.	ASTM C 1382	Standard Test Method for Determining Tensile Adhesion Properties of Sealants
		When Used in Exterior Insulation and Finish Systems (EIFS) Joints
٧.	ASTM C 1396	Standard Specification for Gypsum Board
	ASTM C 1397	Standard Practice for Application of Class PB Exterior Insulation and Finish
		System (EIFS) and EIFS with Drainage
Х.	ASTM D 412	Standard Test Methods for Vulcanized Rubber and Thermoplastic
		Elastomers—Tension
у.	ASTM D 624	Standard Test Method for Tear Strength of Conventional Vulcanized Rubber
,		and Thermoplastic Elastomers
7.	ASTM D 968	Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling
		Abrasive
аа	. ASTM D 1784	Standard Specification for Rigid PVC and CPVC Compounds
	. ASTM D 1970	Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet
55.	. 7.01W D 1070	Materials Used as Steep Roofing Underlayment for Ice Dam Protection
CC	ASTM D 2247	Standard Practice for Testing Water Resistance of Coatings in 100% Relative
00.	AOTIVI D ZZ+1	Humidity
44	. ASTM D 2898	Standard Test Method for Accelerated Weathering of Fire-Retardant-Treated
uu.	. AOTIVID 2090	Wood for Fire Testing
00	. ASTM D 3273	Standard Test Method for Resistance to Growth of Mold on the Surface of
CC.	. ASTIVID 3213	
ff	ASTM D 3330	Interior Coatings in an Environmental Chamber
		Standard Test Method for Peel Adhesion of Pressure-Sensitive Tape
99.	. ASTM D 4060	Standard Test Method for Abrasion Resistance of Organic Coatings by the
ماما	A OTM D 4544	Taber Abraser
nn.	. ASTM D 4541	Standard Test Method for Pull-Off Strength of Coatings Using Portable
	A OTA E 70	Adhesion Testers
ii.	ASTM E 72	Standard Methods of Conducting Strength Tests of Panels for Building
	A OTN 4 T O 4	Construction
jj.	ASTM E 84	Standard Test Method for Surface Burning Characteristics of Building Materials
	ASTM E 96	Standard Test Methods for Water Vapor Transmission of Materials
II.	ASTM E 119	Standard Method for Fire Tests of Building Construction and Materials
mn	n.	ASTM E 283 Standard Test Method for Determining Rate of Air Leakage
		Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure
		Differences Across the Specimen
nn.	. ASTM E 330	Test Method for Structural Performance of Exterior Windows, Doors and
		Curtain Walls by Uniform Static Air Pressure Difference

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	00.	ASTM E 331	Test Method for Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Uniform Static Air Pressure Difference
	pp.	ASTM E 831	Standard Test Method for Linear Thermal Expansion of Solid Materials by Thermomechanical Analysis
	qq.	ASTM E 1233	Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls by Cyclic Air Pressure Differential
	rr.	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
	SS.	ASTM E 2134	Test Method for Evaluating the Tensile-Adhesion Performance of Exterior Insulation and Finish Systems (EIFS)
	tt.	<b>ASTM E 2178</b>	Standard Test Method for Air Permeance of Building Materials
	uu.	ASTM E 2273	Test Method for Determining the Drainage Efficiency of Exterior Insulation and Finish Systems (EIFS) Clad Wall Assemblies
	VV.	ASTM E 2357	Standard Test Method for Determining Air Leakage of Air Barrier Assemblies
	WW.	.ASTM E 2430	Standard Specification for Expanded Polystyrene (EPS) Thermal Insulation Boards for use in Exterior Insulation and Finish Systems (EIFS)
	XX.	ASTM E 2485	Standard Test Method for Freeze-Thaw Resistance of Exterior Insulation and Finish Systems (EIFS) and Water-Resistive Barrier Coatings
	уу.	ASTM E 2486	Standard Test Method for Impact Resistance of Class PB and PI Exterior Insulation and Finish Systems (EIFS)
	ZZ.	<b>ASTM E 2568</b>	Standard Specification for PB Exterior Insulation and Finish Systems
	aaa	١.	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
	bbb	<b>)</b> .	ASTM G 154 Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials
	ccc.ASTM G 155		Standard Practice for Operating-Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials
2.	Nat	ional 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
_			Components

- 3. The American Association of Textile Chemists and Colorists:
  - a. AATCC 127-08 Water Resistance: Hydrostatic Pressure Test
- 4. US Federal Specifications
  - a. TT-S-001543A Sealing Compound: Silicone Rubber Base (for Calking, Sealing, and Glazing in Buildings and Other Structures)
  - b. TT-S-00230 Sealing Compound: Elastomeric Type, Single Component (for Calking, Sealing, and Glazing in Buildings and Other Structures)

#### 1.03 ADMINISTRATIVE REQUIREMENTS

#### A. Pre-Construction Meetings

(Note to Specifier: Work in this section requires coordination with related sections and trades. A pre-installation meeting of all related sub-contractors <u>is required</u> for standard limited warranty.)

- The EIFS installer shall coordinate with the General Contractor to schedule, invite and administer a preconstruction meeting including but not limited to the architect of record, consultant(s), EIFS, sheathing board, accessory materials and sealant manufacturer's representatives and the owner to assure required integration of products selected as specified herein and for proper sequencing, installation detailing and sealant color coordination.
- B. Coordinate for related specification and integration of Required Materials as referenced in Section 2.02.B.1 and 2.02.C herein below.

#### C. Sequencing

- 1. Provide jobsite grading prior to installation of High Durability Exterior Insulation and Finish System with Moisture Drainage so that the system may be terminated at 8 in above 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 membrane barrier 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 High Durability Exterior Insulation and Finish System with Moisture Drainage and when EIFS coatings are dry.
- 8. Attach penetrations through High Durability Exterior Insulation and Finish System to structural support and provide water-tight seals at penetrations.

#### 1.04 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 High Durability 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 system specified. Submit Owner/Architect-requested test results verifying the performance of the High Durability Exterior Insulation and Finish System with Moisture Drainage.
- E. Submit a copy of the manufacturer's installation details and application instructions.

#### 1.05 CLOSEOUT SUBMITTALS

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

#### 1.06 QUALITY ASSURANCE

(Note to Specifier: Please delete any qualification below not relevant to this project and 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).

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Manufacture High Durability 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 High Durability Exterior Insulation and Finish System with Moisture Drainage.
- 2. Possess a current copy of the manufacturer's Trained Contractor Certificate for the 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 EIFS Manufacturer, and capable of producing the Expanded Polystyrene (EPS) in accordance with the current EIFS Manufacturer's Specification for Insulation Board.
- 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 HDCI System Trained Contractor Certificate\* issued by Dryvit Systems, Inc.

#### E. Panel Erector Qualifications:

- 1. Experienced and competent in the installation of architectural wall panel 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. Separate the EPS insulation board from the interior of the building by a minimum 15-minute thermal barrier.
- 2. Comply with local building codes for the use and maximum thickness of EPS insulation board.

#### H. Inspections:

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

#### 1.07 DELIVERY, STORAGE AND HANDLING

- 1. Deliver all High Durability 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 High Durability 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 High Durability 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.
- 4. Protect all products from inclement weather and direct sunlight.

#### 1.08 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 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 system.)

#### 1.09 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. When the EIF System materials which are manufactured and sold by Dryvit are installed in accordance with Dryvit's current published literature under normal weather conditions and excluding unusual air pollution, will have a base coat, mesh and finish (the "Lamina") that is resistant to puncture.
    - 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.
    - a. The EIF system warranty term shall be 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.
      - 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.

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 Specially produced colors will be UV fade resistant for 5 years when high-performance colorants are used to formulate.

#### B. Installer Warranty

1. EIF system Installer shall provide a separate minimum 1-year warranty 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 Systems, Inc., One Energy Way, West Warwick, RI 02893, 800-556-7752, www.dryvit.com.

#### B. Substitution Limitations:

1. All components of the Outsulation HDCI Securock ExoAir 430 System shall be supplied or obtained from Dryvit or its authorized distributors. Substitutions or additions of materials manufactured or supplied by others will void the system warranty.

#### C. Product Options:

(Note to Specifier: Select appropriate method of application for your project.)

- 1. Field Applied: The Outsulation HDCI Securock ExoAir 430 System is applied to the substrate system in place.
- 2. Panelized: The Outsulation HDCI Securock ExoAir 430 System is shop-applied to prefabricated wall panels.

#### 2.02 DESCRIPTION

#### A. System Description:

- 1. The Dryvit Outsulation HDCl Securock ExoAir 430 System is a High Durability Exterior Insulation and Finish System (EIFS) with Moisture Drainage; consisting of:
  - a. A Coated Fiberglass Mat Gypsum Sheathing with Integral Weather-Resistant Barrier and Air Barrier with accessory materials
  - b. Adhesive installed in vertical ribbons to facilitate egress of incidental moisture
  - c. Expanded Polystyrene (EPS) insulation board
  - d. Base Coat
  - e. Reinforcing Mesh
  - f. Finish Coat
  - g. Sealants

#### B. Materials:

- 1. A Coated Fiberglass Mat Gypsum Sheathing Panel with Integral Weather-Resistant Barrier and Air Barrier and Accessory Materials:
  - a. Shall be Securock ExoAir 430 Panel as manufactured by USG Corporation.
  - b. Accessory Materials: Provide compatible accessory materials as required by project conditions for treating sheathing board joints, fastener heads, penetrations, rough openings, material transitions and flashing integration to produce a complete air barrier assembly.
    - 1) Basis of Design: Dymonic® 100 A high-performance, high-movement, single-component, medium-modulus, low-VOC, UV-stable, non-sag polyurethane sealant as manufactured by Tremco Incorporated.

#### 2. Drainage Components:

- a. Drainage Track UV treated PVC "J" channel perforated with weep holes, complying with ASTM D 1784 and ASTM C 1063. (Dryvit Drainage Track usage is limited to the base of the system at finished grade level. Use Dryvit Drainage Strip at all other horizontal terminations.)
- b. Acceptable manufacturers of Drainage Track:
  - 1) Starter Trac STWP without drip edge by Plastic Components, Inc.
  - 2) Starter Trac STDE with drip edge by Plastic Components, Inc.
  - 3) Universal Starter Track by Wind-lock Corporation
  - 4) Sloped Starter Strip with Drip by Vinyl Corp.
- c. Dryvit Drainage Strip™ corrugated plastic strip.
- d. Dryvit AP Adhesive™ urethane-based adhesive used to attach Drainage Track and Dryvit Drainage Strip to the sheathing.

#### 3. Adhesives:

(Note to Specifier: Edit list below to reference specific product(s) of choice for this project or leave list intact allowing the EIFS installer to select as their preference and/or what is most appropriate for the project and project conditions.)

- a. Liquid polymer-based adhesive field mixed with Portland cement.
  - 1) Dryvit Primus®
  - 2) Dryvit Genesis®
- b. Ready mixed dry blend cementitious, copolymer-based adhesive field mixed with water.
  - 1) Dryvit Primus® DM
  - 2) Dryvit Genesis® DM
  - 3) Dryvit Genesis® DMS
  - 4) Rapidry DM™ 35-50
  - 5) Rapidry DM<sup>™</sup> 50-75

#### Insulation Board:

a. Expanded Polystyrene; minimum thickness 25 mm (1 in); meeting Dryvit Specification <u>DS131</u> and ASTM E 2430.

#### 5. Base Coat:

(Note to Specifier: Edit list below to reference specific product(s) of choice for this project or leave list intact allowing the EIFS installer to select as their preference and/or what is most appropriate for the project and project conditions.)

- a. Liquid polymer-based base coat field mixed with Portland cement.
  - 1) Dryvit Primus
  - 2) Dryvit Genesis
  - 3) Dryvit Dryflex
- b. Ready mixed dry blend cementitious, copolymer-based base coat field mixed with water.
  - 1) Dryvit Primus DM
  - 2) Dryvit Genesis DM
  - 3) Dryvit Genesis DMS
  - 4) Rapidry DM 35-50
  - 5) Rapidry DM 50-75
- c. Liquid polymer-based base coat field mixed with Portland cement when specified.
  - 1) ShieldIt™

(Note to Specifier: This is a 2-pass base coat used over existing EIFS or a Dryvit reinforced base coat to improve impact resistance against woodpeckers when specified.)

#### 6. Reinforcing Mesh:

a. Open-weave, glass fiber fabric treated for compatibility with other system materials.

(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.)

b. Provide Ultra High Impact Mesh Assembly including Standard Mesh (4.3 oz.) set in base coat over Panzer 20 (20.5 oz.) Mesh set in base coat with Corner Mesh (7.2 oz.) set in base coat throughout the entire EIFs field wall area.

Reinforcing Mesh <sup>1</sup> /Weight oz/yd² (g/m²)	Minimum Tensile Strengths	EIMA Impact Classification	EIMA Impact Range in-lbs (Joules)		Impact Test Results in-lbs (Joules)	
02.3 a (g )	ou onguio	Giacomoation		(000.00)		(000.00)
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® 15¹ - 15 (509)	400 lbs/in (71 g/cm)	Ultra High	>150	(>17)	162	(18)
Panzer 201 - 20.5 (695)	550 lbs/in (98 g/cm)	Ultra High	>150	(>17)	352	(40)
Detail Mesh® Short Rolls - 4.3 (146)	150 lbs/in (27 g/cm)	n/a	n/a	n/a	n/a	n/a
Corner Mesh™ - 7.2 (244)	274 lbs/in (49 g/cm)	n/a	n/a	n/a	n/a	n/a
* It shall be colored blue and bear the Dryvit logo for product identification						
<ol> <li>Shall be used in conjunction with Standard Mesh (recommended for areas exposed to high traffic)</li> </ol>						

7. Pre-Coated Insulation Starter Boards, Corners and Shapes:

(Note to Specifier: Pre-Base Coated Insulation Starter Boards, Corners and Shapes provide for properly back wrapped and encapsulated EIF system termination edges typically scheduled to receive primers and sealants and are recommended. Machine or Non-Machine coated starter boards and shapes must be produced with Dryvit materials to be covered under the EIF system warranty. Retain one or both items below as desired or delete those item(s) not desired.)

- a. Machine Coated Starter Boards, Corners and Shapes: Shall be produced with materials approved by Dryvit Systems, Inc. and be supplied by a fabricator approved by Dryvit Systems, Inc.
- b. Non-Machine Coated Starter Boards, Corners and Shapes: Shall be produced with materials approved by Dryvit Systems, Inc.

#### Finish:

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

- a. 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 (HDP™) 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) Lymestone™ HDP
- c. 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
- 9. 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 acrylic-based finish with large mica chips and multi-colored guartz aggregates.
  - e. Lymestone premixed, acrylic-based finish designed to replicate the appearance of limestone blocks.
  - f. Reflectit™ acrylic coating providing a pearlescent appearance.
  - g. Finesse a smooth 100% acrylic-based dirt pickup resistance finish.
  - h. Tibur Stone™: 100% acrylic-based finish with the appearance of Travertine Stone.
  - i. NewBrick™: A lightweight insulated brick veneer for use on exterior walls.
    - 1) For fire resistance rated assembly, CI insulation thickness is limited to 2 1/4 in (57 mm)
    - 2) For Type I IV Construction, CI insulation thickness is limited to 4 in (101.6 mm)
  - Ferros™ Finish: a water-based finish that replicates the look of rusting metal.
- 10. Elastomeric, water-based acrylic coating with integral color and texture; formulated with Dirt Pickup Resistance (DPR) chemistry:
  - a. Weatherlastic® Quarzputz
  - b. Weatherlastic® Sandpebble
  - c. Weatherlastic® Sandpebble Fine
  - d. Weatherlastic® Adobe
- 11. Medallion Series water-based, acrylic coating with integral color and texture; formulated with Proven Mildew Resistance (PMR™) chemistry:
  - a. Quarzputz® PMR
  - b. Sandblast® PMR
  - c. Freestyle® PMR
  - d. Sandpebble® PMR
  - e. Sandpebble® Fine PMR
- 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:

- 1. Silicone Sealant: A non-sag, non-staining, neutral-curing silicone joint sealant as manufactured by Tremco Inc. Commercial Sealants and Waterproofing.
  - a. 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. Spectrem 3: A general-purpose, low-modulus, high performance, one-part, neutral-cure, nonstaining, low dirt pickup, construction-grade silicone sealant.
  - 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.
  - Coordination for custom sealant colors are required.

e. See related specification section or consult with Tremco, Inc. for more information.

#### D. Jobsite-Mixed Materials:

- 1. Portland cement: verify is Type I or II, 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 HDCI Securock ExoAir 430 System:
  - 1. Data Sheet DS908
  - 2. Details DS 911
  - 3. Application Instructions DS909

#### **PART 3 EXECUTION**

#### 3.01 EXAMINATION

#### A. Verification of Conditions:

- 1. Verify access to electric power, clean water and a clean work area at the location where the Dryvit materials are to be applied.
- 2. Verify that wall surface on which High Durability Exterior Insulation and Finish System with Moisture Drainage is to be installed is Securock ExoAir 430 coated fiberglass mat gypsum sheathing panel with integral weather-resistant barrier and air barrier (USG Corporation).
- 3. Verify the deflection of the substrate does not exceed 1/240 times the span. Verify substrate is flat within 1/4 in (6.4 mm) in a 4 ft (1.2 m) radius.
- 4. Verify substrate is sound, dry, connections are tight; has no surface voids, projections, or other conditions that may interfere with the High Durability Exterior Insulation and Finish System with Moisture Drainage installation or performance.
- 5. Verify the slope of inclined surfaces are not less than 6:12 (27°) were the length of the slope does not exceed 12 in (305 mm) or 3:12 (14°) were the length of the slope does not exceed 4 in (102 mm).
- 6. Verify metal roof flashings have been installed in accordance with Sheet Metal and Air Conditioning Contractors National Association (SMACNA) standards.
- 7. Verify all rough openings are flashed in accordance with the High Durability 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.
- 8. Verify windows and doors are installed and flashed per manufacturer's requirements and installation details.
- 9. Notify general contractor of all discrepancies prior to the installation of the High Durability Exterior Insulation and Finish System with Moisture Drainage.

(Note to Specifier: Design and location of expansion joints in the High Durability Exterior Insulation and Finish System with Moisture Drainage is the responsibility of the project designer and as designated on contract drawings.)

- 10. Verify that expansion joints are installed:
  - a. Where expansion joints occur in the substrate 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 movement is expected.

**DS910** 

- e. Where the High Durability 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 75 ft (23 m).
- Where significant structural movement occurs, such as changes in roof line, building shape or structural system.
- 11. 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. Coordinate for related specification and integration of Coated Fiberglass Mat Gypsum Sheathing Panel with Integral Weather-Resistant Barrier and Air Barrier and Accessory Materials as referenced in Section 2.02.B herein above and Sealants as referenced in Section 2.02.C herein above.
- B. Protect the High Durability Exterior Insulation and Finish System with Moisture Drainage materials by permanent or temporary means from inclement weather and other sources of damage prior to, during, and following application until completely dry.
- C. Protect adjoining work and property during installation of the High Durability Exterior Insulation and Finish System with Moisture Drainage.
- D. 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 system in accordance with ASTM C1397 and the Dryvit Outsulation HDCl Securock ExoAir 430 System Application Instructions, DS909. Apply base coat sufficient to fully embed the reinforcing mesh. The recommended method is to apply the base coat in two (2) passes.
- B. Apply sealant to base coat surface prepared in accordance with DS153.
- C. Install ultra high impact reinforcing mesh assembly with corner mesh as specified throughout the entire EIFS field wall area.
- D. Install Machine Coated Dryvit EPS Shapes in accordance with Dryvit Publication DS854.

#### 3.04 SITE QUALITY CONTROL

- A. High Durability Exterior Insulation and Finish System with Moisture Drainage manufacturer assumes no responsibility for on-site inspections or application of its products.
- B. EIFS 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. EPS supplier, if requested, to certify in writing that the EPS meets the High Durability Exterior Insulation and Finish System with Moisture Drainage manufacturer's specifications.
- D. The sealant contractor, if requested, to certify in writing that the sealant application is in accordance with the sealant manufacturer's and the High Durability Exterior Insulation and Finish System with Moisture Drainage manufacturer's recommendations.

#### 3.05 CLEANING

**DS910** 

- A. Remove all excess High Durability Exterior Insulation and Finish 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 High Durability Exterior Insulation and Finish System with Moisture Drainage has been applied, free of debris and foreign substances resulting from the EIFS sub-contractor's work.

**END OF SECTION 07 24 19** 

Dryvit Systems, Inc. One Energy Way West Warwick, RI 02893 800-556-7752 www.dryvit.com For more information on  $\underline{\text{Dryvit Systems}}$  or  $\underline{\text{Continuous Insulation}}$  visit these links.

