



ICC-ES Evaluation Report

ESR-1547

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This report is subject to renewal July 2024.

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 24 00—Exterior Insulation and Finish Systems
Section: 07 24 19—Water-Drainage Exterior Insulation and Finish System

REPORT HOLDER:

TREMCO CPG, INC.

EVALUATION SUBJECT:

DRYVIT OUTSULATION® RMD SYSTEM AND OUTSULATION® SMD SYSTEM EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021, 2018, 2015, 2012 and 2009 *International Building Code*® (IBC)
- 2021, 2018, 2015, 2012 and 2009 *International Residential Code*® (IRC)
- 2013 *Abu Dhabi International Building Code* (ADIBC)†

†The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Properties evaluated:

PROPERTY	IBC Chapter	IRC Chapter
Exterior insulation and finish systems (EIFS)	14	R7
Fire-resistance-rated construction	7	R3
Weather resistance	14	R7
Special inspections	17	NA
Structural – transverse wind load resistance	16	R6
Surface burning characteristics	26	R3
Ignition resistance	26	NA

2.0 USES

The Dryvit Outsulation® RMD System and Outsulation® SMD System are adhesively or mechanically attached exterior insulation and finish systems (EIFS) complying with 2021 and 2018 IBC Section 1407 (2015, 2012 and 2009 IBC Section 1408) and IRC Section R703.9. The systems comply as an EIFS with drainage in accordance with 2021 and 2018 IBC Section 1407.4.1 (2015, 2012 and 2009 IBC Section 1408.4.1) and IRC Section R703.9.

The systems described in this report are limited to use in buildings of Type V construction under the IBC and dwellings under the IRC, when installed in accordance with Section 4.5 of this report.

3.0 DESCRIPTION

3.1 System Components:

The systems consist of a water-resistive barrier, drainage medium, expanded polystyrene or polyisocyanurate insulation, adhesives or fasteners, base coat, reinforcing mesh and finish. See Table 1.

3.2 Insulation Board:

Insulation boards for the Outsulation RMD System must be one of the following:

- a. Expanded polystyrene (EPS) insulation board complying with ASTM C578 Type I and ASTM E2430, with a flame spread index of 25 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E84 or UL723. The board must be produced by a molder who participates in an approved third-party quality assurance program, and must be labeled in accordance with Section 7.0 of this report.
- b. Foam-Control EPS boards, Type I-WSG, by AFM Corporation, as described in ICC-ES evaluation report [ESR-1006](#).
- c. Staccato EIFS by Atlas EPS, as described in ICC-ES evaluation report [ESR-1962](#).

Insulation boards for the Outsulation SMD System must be Stucco Shield by Atlas Roofing Corporation, a rigid polyisocyanurate foam core insulation board, complying with ASTM C1289 as Type II, with glass-fiber facings. Stucco Shield is listed in ICC-ES evaluation report [ESR-1375](#).

3.3 Substrates:

Substrates must be one of the following:

- Gypsum sheathing board complying with ASTM C1396 or ASTM C1177, minimum thickness of 1/2 inch (12.7 mm). When used as part of a fire-resistive-rated assembly, the gypsum sheathing must be Type X with a minimum thickness of 5/8 inch (15.9 mm).
- Unglazed brick or concrete masonry complying with the code.
- Concrete complying with the code.
- Exterior plaster complying with the code.
- Exposure 1 wood structural panels complying with DOC PS-1 or PS-2.

3.4 Water-resistive Barrier:

The barrier must be one of the following:

- No. 15 asphalt felt, complying with ASTM D226, Type I.
- Grade D building paper with 60-minute water resistance, complying with UBC Standard 14-1.
- Tyvek StuccoWrap described in ICC evaluation report [ESR-2375](#). The product is equivalent to a Grade D building paper having a 60-minute water-resistance rating.
- Dryvit Backstop NT-Smooth, Dryvit Backstop NT-Texture, Dryvit Backstop NTX-Smooth or Dryvit Backstop NTX-Texture water-resistive coating, as listed in ICC-ES evaluation report [ESR-3319](#).

Other water-resistive barriers are permitted, provided they have a current ICC-ES evaluation report.

3.5 Sealants:

Sealants must comply with ASTM C920, Type S or M, minimum Grade NS, minimum Class 25 and Use O.

3.6 Drainage:

Drainage must be provided between the insulation board and the water-resistive barrier by using one of the following:

- Dryvit Drainage Mat, which is a blue-colored, 1/8-inch-thick (3.2 mm) mat composed of open-weave polymer threads and the mat is used to separate the insulation board from the water-resistive barrier.
- Notched-trowel application of the Dryvit adhesive in a vertical orientation on the backside of the flat EPS insulation board, with a trowel having 3/8-inch-wide-by-1/2-inch deep (9.5 mm by 12.7 mm) notches spaced 1 1/2 inches (38 mm) on center.
- Grooved insulation board, 1 1/2 to 4 inches (38 to 102 mm) thick, with vertical grooves measuring 1/8 inch (3.2 mm) deep by 1 inch (25.4 mm) wide spaced 4 inches (102 mm) on center.
- Tyvek StuccoWrap as described in ICC-ES evaluation report [ESR-2375](#). When Tyvek StuccoWrap is used as a drainage medium, the Tyvek StuccoWrap is also the water-resistive barrier.
- Outsulation SMD System Drainage spacer, which is a polyethylene spacer measuring 1/8 inch thick by 3 inches wide (3.2 mm by 76 mm).

4.0 INSTALLATION

4.1 General:

The Dryvit Outsulation® RMD System must be installed in accordance with 2021 and 2018 IBC Section 1407 (2015,

2012 and 2009 IBC Section 1408), IRC Section R703.9 and the manufacturer's application instructions, specifications and details. These are available at <http://www.dryvit.com/media/341499/ds143.pdf>.

The Dryvit Outsulation® SMD System must be installed in accordance with 2021 and 2018 IBC Section 1407 (2015, 2012 and 2009 IBC Section 1408), IRC Section R703.9 and the manufacturer's application instructions, specifications and details. These are available at <http://www.dryvit.com/media/435393/ds123.pdf>.

4.2 Drainage:

Drainage must be provided as noted in Table 1.

4.3 Wind Design:

Table 2 presents specific assemblies for which test data has been submitted. Other assemblies may be considered for approval by local officials based on testing and/or calculations of a qualified design professional.

4.4 Weather Protection:

The Outsulation® RMD and Outsulation® SMD systems comply with 2021 and 2018 IBC Section 1402.2 (2015, 2012 and 2009 IBC Section 1403.2) and IRC Section R703.1.1.

4.5 Fire-resistance-rated Construction Assemblies:

In Type V construction, the Dryvit Outsulation® RMD and Outsulation® SMD systems may be attached to the surface of combustible exterior fire-resistance-rated assemblies described in 2021, 2018, 2015 and 2012 IBC Table 721.1(2) (2009 IBC Table 720.1(2)) without changing the assigned hourly rating of the assembly. The exterior wall must have a minimum 10-foot (3048 mm) separation distance from adjacent construction.

4.6 Special Inspection:

For recognition under the IBC, special inspection of the Dryvit Backstop NT-Texture, Dryvit Backstop NT-Smooth, Dryvit Backstop NTX-Texture or Dryvit Backstop NTX-Smooth water-resistive barriers, when installed over a sheathing substrate, must be conducted in accordance with 2021, 2018, 2015 IBC Sections 1704.2 and 1705.16.1 (2012 IBC Sections 1704.2 and 1705.15.1 and 2009 IBC Sections 1704.1 and 1704.14.1). Refer to the manufacturer's Third Party Inspection Guidelines for Owners and General Contractors/Construction Managers, available at [Dryvit inspection guidelines](#).

5.0 CONDITIONS OF USE

The Dryvit Outsulation® RMD and Outsulation® SMD systems described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Installation must comply with this report, the manufacturer's published application instructions and the applicable code. In the event of a conflict between the manufacturer's instructions and this report, this report governs.
- 5.2 The insulation boards must be separated from the building interior by a thermal barrier complying with the applicable code.
- 5.3 Installation must be by applicators acceptable to Tremco CPG, Inc.
- 5.4 Termination of the systems must not be less than 6 inches (152 mm) above finished grade, in accordance with 2021, 2018, 2015 and 2009 IBC Section 2603.8 (2012 IBC Section 2603.9) and IRC Section R318.4 and 2018 and 2015 IRC Section R703.9.2 (2012 and 2009 IRC Section R703.9.4.1).
- 5.5 Adequacy of fasteners for concrete, masonry, brick or portland cement plaster substrates must be

demonstrated to the satisfaction of the code official by a program of proof-load testing of fastener withdrawal from the wall. The average withdrawal strength, in pounds, must be six times the required fastener load.

6.0 EVIDENCE SUBMITTED

- 6.1 Reports of tests in accordance with ASTM E2568 and ASTM E2273.
- 6.2 Data in accordance with the ICC-ES Acceptance Criteria for EIFS Clad Drainage Wall Assemblies (AC235), dated January 2015 (editorially revised July 2020).
- 6.3 Data in accordance with the ICC-ES Acceptance Criteria for Foam Plastic Insulation (AC12), dated June 2015 (editorially revised December 2020).

7.0 IDENTIFICATION

- 7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-1547) along with the name, registered trademark, or registered logo or the report holder [and/or listee] must be included in the product label.

- 7.2 In addition, each container or package of coating or reinforcing mesh used as part of the Dryvit Outsulation® RMD system and Outsulation® SMD system must be labeled with the Tremco CPG, Inc., name and address; the product name; the lot or batch number; the quantity of material; the storage instructions; the pot life; the expiration date; and the evaluation report number (ESR-1547).

- 7.3 EPS insulation boards must be labeled with the manufacturer's name; manufacturing address or factory identification; and the current ICC-ES evaluation report number.

- 7.4 The report holder's contact information is the following:

TREMCO CPG, INC.
3735 GREEN ROAD
BEACHWOOD, OHIO 44122
(800) 556-7752
www.dryvit.com

TABLE 1—COATING SYSTEM COMPONENTS

SYSTEM	WATER-RESISTIVE BARRIER	INSULATION BOARD	DRAINAGE MEDIUM	INSULATION ATTACHMENT METHOD		BASE COATS	REINFORCING MESH	FINISH
				Adhesive ²	Mechanical fasteners			
Outsulation® RMD								
System 1	Dryvit Backstop NT or Dryvit Backstop NTX, or approved sheet membranes ³	Expanded Polystyrene, see Section 3.2	Dryvit Drainage Mat	N/A	Wind Devil 2 washers and screws	Genesis, or Genesis DM	Standard Reinforcing Mesh, nominally 4.3 oz./yd ² or greater	DPR or PMR
System 2	DuPont Tyvek StuccoWrap ¹ (ESR-2375)		N/A	N/A	Wind Devil 2 washers and screws			
System 3	Dryvit Backstop NT or Dryvit Backstop NTX, or approved sheet membranes ³		Grooved EPS Insulation Board	N/A	Wind Devil 2 washers and screws			
System 4	Dryvit Backstop NT or Dryvit Backstop NTX		Notched Trowel Adhesive ⁴	Primus, Genesis, or Genesis DM	N/A			
System 5	Dryvit Backstop NT or Dryvit Backstop NTX, or approved sheet membranes ³		Expanded Metal Lath	Primus, Genesis, or Genesis DM	N/A			
Outsulation® SMD								
System 1	Dryvit Backstop NT or Dryvit Backstop NTX, or approved sheet membranes ³	Polyisocyanurate, see Section 3.2	Dryvit Drainage Mat or Drainage Spacer	N/A	ULP 302 or ULP 402 Washers with screws	Genesis, or Genesis DM	Standard Reinforcing Mesh, nominally 4.3 oz./yd ² or greater	DPR or PMR
System 2	DuPont Tyvek StuccoWrap ¹ (ESR-2375)		N/A	N/A	ULP 302 or ULP 402 Washers with screws			

¹When DuPont Tyvek StuccoWrap is used as the water-resistive barrier, a drainage medium is not required.

²Adhesive attachment is permitted when system is installed over Dryvit Backstop NT or Dryvit Backstop NTX.

³Water-resistive barrier conforming with a standard referenced in the code or listed in a current ICC-ES evaluation report.

⁴Notched trowel adhesive, vertically applied, is used only when Dryvit Backstop NT or Dryvit Backstop NTX is used as the water-resistive barrier.

TABLE 2—WIND LOAD DESIGNS

FRAMING ³		SUBSTRATE	MINIMUM EPS THICKNESS (inch)	ALLOWABLE WIND LOAD (PSF) ⁴	
Type	Maximum Spacing (inch)			Mechanically Fastened ⁷	Adhesively Attached
2x4 Wood ¹	16	Minimum 1/2" thick wood based sheathing in accordance with Section 3.3	1	26 negative ²	40 negative ^{2,5}
3 5/8-inch-by No. 18 gage-steel ⁶	16		1	26 negative 51 positive	40 negative ^{2,5}
N/A	N/A	Concrete/ Unglazed Brick/ Cement Plaster/ Concrete Masonry	1	26 negative 26 positive	26 negative 26 positive

For SI: 1 inch = 25.4 mm; 1 psf = 0.0479 kPa.

¹Minimum nominally 2x4 wood framing, minimum specific gravity 0.43.

²Maximum positive pressure is limited to the capacity of the framing and structural sheathing; or concrete, brick, concrete masonry or Portland cement plaster substrate, determined in accordance with the applicable code.

³Framing members must be designed to resist all positive and negative transverse design loads with a maximum allowable deflection of 1/240 of the span.

⁴Limited to the capacity of the studs, sheathing and fasteners.

⁵Outsulation RMD System only.

⁶Minimum No. 18 gage [0.0475 inch (1.119 mm) base-metal thickness].

⁷Allowable loads are limited to wood structural panels.

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1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Dryvit Outsulation® RMD System and Outsulation® SMD System, described in ICC-ES master evaluation report ESR-1547, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2020 Florida Building Code—Building
- 2020 Florida Building Code—Residential

2.0 CONCLUSIONS

The Dryvit Outsulation® RMD System and Outsulation® SMD System, described in Sections 2.0 through 7.0 of evaluation report ESR-1547, comply with the *Florida Building Code—Building* and *Florida Building Code—Residential*. The design requirements must be determined in accordance with the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable. The installation requirements noted in ICC-ES evaluation report ESR-1547 for the 2018 *International Building Code*® meet the requirements of the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable, with the following condition:

Installation must meet the requirements of Section 1403.8 of the *Florida Building Code—Building* or Section R318.7 of the *Florida Building Code—Residential*, as applicable.

Use of the Dryvit Outsulation® RMD System and Outsulation® SMD System for compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* and the *Florida Building Code—Residential* has not been evaluated and is outside the scope of this evaluation report.

For products falling under Florida Rule 61G20-3, verification that the report holder's quality-assurance program is audited by a quality-assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official, when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the evaluation report, reissued July 2022 and revised January 2023.