



ICC-ES Evaluation Report

Reissued January 2022

ESR-3295

Revised January 2023

This report is subject to renewal January 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 Systems

REPORT HOLDER:

TREMCO CPG, INC.

EVALUATION SUBJECT:

DRYVIT OUTSULATION® X SYSTEM

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
Type I–IV (noncombustible) construction	26	NA
Surface-burning characteristics	26	R3
Ignition resistance	26	NA

2.0 USES

The Dryvit Outsulation X System is an adhesively and mechanically attached exterior insulation and finish system (EIFS) complying with 2021 and 2018 IBC Section 1407 (2015, 2012 and 2009 IBC Section 1408) and IRC Section R703.9. The system complies 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 system may be used in fire-resistance-rated Type V construction when installed in accordance with Section 4.6 of this report, and in Types I, II, III and IV construction when installed in accordance with Section 4.5 of this report.

3.0 DESCRIPTION

3.1 System Components:

See Table 1. The system consists of a water-resistive barrier coating, adhesive, Dow Xnergy™ extruded polystyrene insulation board, mechanical fasteners, basecoat, reinforcing mesh and finish.

3.2 Insulation Board:

The insulation board must be Dow Xnergy extruded polystyrene (XPS) foam plastic complying with ASTM C578, Type X, as recognized in ICC-ES evaluation report [ESR-2142](#).

3.3 Substrates:

The substrate must be one of the following:

- Minimum 1/2-inch-thick (12.7 mm) gypsum sheathing board complying with ASTM C1396 or ASTM C1177. 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).
- Brick or concrete masonry complying with the IBC or IRC.
- Concrete complying with the IBC or IRC.
- Exterior cement plaster complying with the IBC or IRC.
- Exposure 1 wood structural panels complying with DOC PS-1 or PS-2.

3.4 Sealants:

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

4.0 INSTALLATION

4.1 General:

The Dryvit Outsulation X 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 specifications, application instructions and details. These are available at:

www.dryvit.com/filesshare/doc/us/specification/ds835.pdf

www.dryvit.com/filesshare/doc/us/application/ds836.pdf

www.dryvit.com/filesshare/doc/us/detail/ds837.pdf

4.2 Drainage:

Drainage must be provided between the flat Dow Xnergy insulation board and the water-resistive barrier coating by notched-trowel application of the Genesis adhesive mixture in a vertical orientation on the back side of the flat insulation board, with a trowel having $\frac{3}{8}$ -inch-wide-by- $\frac{1}{2}$ -inch-deep (9.5 mm by 12.7 mm) notches spaced $1\frac{1}{2}$ inches (38 mm) on center.

4.3 Wind Design:

Table 2 describes specific assemblies for which test data has been submitted. Other assemblies may be considered for approval by the code official based on testing and/or on calculations prepared by a qualified design professional.

4.4 Weather Protection:

The Dryvit Outsulation X system complies with 2021 and 2018 IBC Section 1402.2 (2015, 2012 and 2009 IBC Section 1403.2) and IRC Section R703.1.1.

4.5 Types I, II, III and IV Construction:

Table 3 describes assemblies using the Dryvit Outsulation X system that are qualified for use in Types I through IV construction.

4.6 Fire-resistance-rated Construction Assemblies:

In Type V construction, the Dryvit Outsulation X system 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.

4.7 Mechanical Fasteners:

To qualify the adequacy of fasteners in concrete or masonry substrates, a tension-load test program, consisting of fastener withdrawal from the applicable wall(s) of the building(s) at the location in question, must be implemented. The testing must be conducted by an approved testing laboratory. The average withdrawal strength, in pounds, must be six times the design wind pressure for the location in question. A minimum of five tests per program is required, with results varying by no more than 15 percent from the average. If a minimum of 10 tests per program is conducted, variation from the average may be disregarded. For masonry substrates, a minimum of 40 percent of the tests must be run in masonry joints. Prior to installation of EIFS fasteners, a certificate of compliance, concerning test results relating to load requirements in the evaluation report, must be submitted to and approved by the code official.

4.8 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 barrier coating must be conducted in accordance with 2021, 2018 and 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). The Dryvit Third Party Inspection Guidelines for Owners and

General Contractors/ Construction Managers are available at:

www.dryvit.com/filesshare/doc/us/description/ds150.pdf

5.0 CONDITIONS OF USE

The Dryvit Outsulation X system described in this report complies with, or is a suitable alternative 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, installation details and the applicable code. In the event of a conflict between the manufacturer's instructions and this report, the more restrictive governs.
- 5.2 The Dow Xnergy insulation board must be separated from the building interior by a thermal barrier complying with the applicable code.
- 5.3 Installation must be by applicators listed by Dryvit Systems, Inc.
- 5.4 Termination of the system 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).

6.0 EVIDENCE SUBMITTED

- 6.1 Reports of tests in accordance with ASTM E2568 and ASTM E2570.
- 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 Water-resistive Coatings Used as Water-resistive Barriers over Exterior Sheathing (AC212), dated February 2015 (editorially revised July 2020).
- 6.4 Reports of tests in accordance with NFPA 285 and NFPA 268.

7.0 IDENTIFICATION

- 7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-XXXX) along with the name, registered trademark, or registered logo of the report holder [and/or listee] must be included in the product label. [Electronic labeling is the ICC-ES web address (www.icc-es.org); specific URL related to the report; or the ICC-ES machine-readable code placed on the aforementioned items.]
- 7.2 In addition, each container or package of coating or reinforcing mesh used as part of the Dryvit Outsulation X system must be labeled with the name and address of TREMCO CPG, Inc.; product name; lot or batch number; quantity of material; storage instructions; pot life; expiration date; and the evaluation report number (ESR-3295).

Dow Xnergy insulation boards must be labeled with the manufacturer's name; manufacturing address or plant identification; the name of the inspection agency (ICC-ES); and the applicable ICC-ES evaluation report number ([ESR-2142](http://www.dryvit.com)).

- 7.3 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—SYSTEM COMPONENTS

SYSTEM	WATER-RESISTIVE BARRIER	INSULATION BOARD	BASE COAT	REINFORCING MESH	FINISH
Dryvit Outsulation X System	Dryvit Backstop NT-Texture, Dryvit Backstop NT-Smooth, Dryvit Backstop NTX-Texture or Dryvit Backstop NTX-Smooth	Dow Xnergy Section 3.2	Genesis	Standard Plus Reinforcing Mesh, nominally 6.0 oz/yd ²	DPR PMR
	Dryvit Grid Tape				

TABLE 2—WIND LOAD DESIGN

FRAMING MEMBERS		SUBSTRATE	MECHANICAL FASTENERS		MIN. DOW XENERGY THICKNESS (inch)	WIND LOAD CAPACITY (ALLOWABLE) ^{2,3}	
Type	Spacing (inches)		Max. Fastener Spacing (inches o.c.)	Fastener Type		Negative (psf)	Positive (psf)
2x4 wood ¹	16" o.c.	See Section 3.3, min. 1/2" thick	6" o.c.	No. 6 self-drilling screws, 1 5/8" long	1 1	86	63
3 5/8-inch by No. 18 gage steel						38	62
		Concrete/ unglazed brick/ cement plaster/ concrete masonry	NA	NA	1	70	See Note 2

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.

TABLE 3—ASSEMBLIES FOR USE WITH TYPE I, II, III AND IV CONSTRUCTION

FRAMING MEMBERS			INTERIOR SHEATHING			EXTERIOR SHEATHING			MAX. DOW XENERGY THICKNESS (inches)
Min. Depth (inches)	Min. Gage	Max. Spacing (inches)	Type and Min. Thickness (inch)	Fastener Type	Max. Fastener Spacing (inches o.c.)	Type and Min. Thickness (inch)	Fastener Type	Max. Fastener Spacing (inches o.c.)	
3 5/8"	20 (0.0478 inch)	16" o.c.	Min. 5/8" Type X gypsum wallboard complying with ASTM C36 or ASTM C1396	Min. No. 6, 1 1/4-inch-long, buglehead, self-drilling Type S screws	8" at board joints, 12" at intermediate framing	Min. 1/2" water-resistant core gypsum sheathing complying with ASTM C1396	Min. No. 8, 1 1/4-inch-long, self-drilling Type S screws	8" o.c. along all studs	3.75"

For SI: 1 inch = 25.4 mm.

¹Combustible content of the foam plastic must not exceed an average potential heat content of 6,000 Btu/ft² (68.2 MJ/m²) in every 20-square-foot wall area.

²Floor levels must be blocked with 4-inch-thick (102 mm), 4 pcf (64.1 kg/m³) Thermafiber insulation.

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TREMCO CPG, INC.

EVALUATION SUBJECT:

DRYVIT OUTSULATION® X SYSTEM

1.0 REPORT PURPOSE AND SCOPE**Purpose:**

The purpose of this evaluation report supplement is to indicate that Dryvit Outsulation® X System, described in ICC-ES evaluation report ESR-3295, has 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® X System, described in Sections 2.0 through 7.0 of the evaluation report ESR-3295, complies 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-3295 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® X 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 January 2022 and revised January 2023.