



ICC-ES Evaluation Report

Reissued May 2022

ESR-1692

This report is subject to renewal May 2023.

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 24 00—Exterior Insulation and Finish Systems

REPORT HOLDER:

TREMCO CPG INC.

EVALUATION SUBJECT:

DRYVIT OUTSULATION® LCMD SYSTEMS 1-5

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
Weather resistance	14	R7
Structural–transverse wind load resistance	16	R6
Fire-resistance-rated construction	7	R3
Types I–IV (noncombustible construction)	26	NA
Ignition resistance	26	NA
Exterior insulation and finish systems (EIFS)	14	R7
Surface burning characteristics	26	R3

2.0 USES

The Dryvit Outsulation LCMD System is an 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.

3.0 DESCRIPTION

3.1 System Components:

See Table 1. The system consists of a water-resistive barrier, drainage medium, expanded polystyrene (EPS) insulation board, fasteners, basecoat, reinforcing mesh and finish coat.

3.2 Insulation board:

Insulation boards must be one of the following:

- EPS insulation board complying with ASTM C578, Type I, and ASTM E2430, produced by a molder with a current ICC-ES evaluation report. The board must be labeled in accordance with the applicable report.
- EPS insulation board complying with ASTM C578, Type I, and ASTM E2430, produced by a molder who participates in an approved third-party quality assurance program. The board must be labeled in accordance with the applicable code.
- Foam-Control EPS Boards, Type I-WSG by AFM Corporation, as recognized in ICC-ES evaluation report [ESR-1006](#).
- Staccato EIFS by Atlas Molded Products, A division of Atlas Roofing Corporation, as recognized in ICC-ES evaluation report [ESR-1962](#).

EPS insulation board must have 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.

3.3 Substrates:

Substrates must be one of the following:

- Gypsum sheathing board complying with ASTM C1396, minimum thickness of 1/2 inch (12.7 mm). When used as part of a fire-resistive-rated assembly the gypsum wallboard must be Type X with a minimum thickness of 5/8 inch (15.9 mm).
- Glass-matt-faced gypsum substrate complying with ASTM C1177, with a minimum thickness of 1/2 inch (12.7 mm).
- Brick or concrete masonry complying with the applicable code.

- Concrete complying with the applicable code.
- Exterior plaster complying with the applicable code.
- 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 DESIGN AND INSTALLATION

4.1 General:

Dryvit Outsulation LCMD Systems 1–5 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 installation details. These are available at:

<http://www.dryvit.com/filesshare/doc/us/application/ds172.pdf>

<http://www.dryvit.com/filesshare/doc/us/specification/ds171.pdf>

<http://www.dryvit.com/filesshare/doc/us/detail/ds170.pdf>

4.2 Drainage:

- System 1: Drainage mat: A mat supplied by Dryvit Systems, made of continuous nylon filaments fused at their intersections. Ninety-five percent of the matting is open.
- System 2: DuPont Tyvek StuccoWrap (see [ESR-2375](#)).
- System 3: Channeled insulation board: Insulation board must be manufactured in accordance with Dryvit Specification DS131 and be supplied by a Dryvit-listed board supplier. The board supplier must participate in an approved third-party quality assurance program. The grooves are 1/4 inch deep by 1 inch wide (6.4 mm by 25.4 mm) and are spaced at 4 inches (102 mm) on center.
- System 4: Expanded metal lath: Galvanized expanded metal lath, 2.5 or 3.4 lbs/yd² (195 or 266 kg/m²). Lath must meet Federal Specification QQ-L-101C.
- System 5: Ultra Lath: PLASS-T-LATH, manufactured by Plastic Components, Inc., is an alternative to galvanized metal lath.

4.3 Wind Design:

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

4.4 Weather Protection:

The Dryvit Outsulation LCMD Systems 1–5 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 Use in Types I, II, III and IV Construction:

Table 3 lists the assemblies qualified for use in Type I, II, III, or IV construction.

4.6 Fire-resistance-rated Construction Assemblies:

Table 4 describes the assemblies qualified for use in nonload-bearing, fire-resistance-rated construction. In Type V construction, the Dryvit LCMD 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.

5.0 CONDITIONS OF USE

The Dryvit Outsulation LCMD Systems 1–5 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, installation details and the applicable code. In the event of a conflict between manufacturer's published application 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 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 2018 and 2015 IRC Sections R318.4 and R703.9.2 (2012 and 2009 IRC Sections R318.4 and 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 proof-load test program consisting 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 Each container or package of the coating or reinforcing mesh used as part of the Dryvit Outsulation LCMD Systems 1–5 must be labeled with the Dryvit Systems, Inc., name and address; the product name; lot or batch number; quantity of material; storage instructions; pot life; expiration date; and the evaluation report number (ESR-1692).

EPS insulation must be labeled in accordance with the current ICC-ES evaluation report in which it is recognized, or in accordance with IBC Section 2603.2 or IRC Section 316.2, as applicable.

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

TREMCO CPG INC.
3735 GREEN ROAD
BEACHWOOD, OHIO 44122
www.tremcosealants.com

TABLE 1—OUTSULATION LCMD SYSTEM COMPONENTS

SYSTEM CONFIGURATION	WATER-RESISTIVE BARRIER	DRAINAGE MEDIUM ¹	ATTACHMENT METHOD		EPS MINIMUM THICKNESS (in.)	BASE COATS	FINISH
			Adhesive	Mechanical Fasteners			
• System 1	Code-complying water-resistive barrier	Drainage mat	N/A	Screws and Wind Devil 2 washers ²	1	Genesis Genesis DM	DPR PMR
• System 2	Tyvek StuccoWrap	N/A	N/A	Screws and Wind Devil 2 washers ²	1	Genesis Genesis DM	DPR PMR
• System 3	Code-complying water-resistive barrier	Grooved insulation board	N/A	Screws and Wind Devil 2 washers ²	1.5	Genesis Genesis DM	DPR PMR
• System 4	Code-complying water-resistive barrier	Expanded metal lath	Primus Genesis Genesis DM	N/A	1	Genesis Genesis DM	DPR PMR
• System 5	Code-complying water-resistive barrier	Ultra Lath	Primus Genesis Genesis DM	N/A	1	Genesis Genesis DM	DPR PMR

For SI: 1 inch = 25.4 mm.

¹See Section 4.2 for a description of drainage mediums.

²Fastener details and specifications as described in Section 4.1.

TABLE 2—WIND LOAD DESIGNS⁵

FRAMING MEMBERS ³				SHEATHING			INSULATION ⁴		WIND LOAD CAPACITY ¹	
Wood	Metal		Spacing o.c. (in.)	Type	Thickness (in.)	Fastener Spacing	Min. Thickness (in.)	Fastener Spacing o.c. (in.)	Neg (psf)	Pos
	Min. Depth (in.)	Min. Gage								
Footnote 1			16	Wood-based sheathing	1/2	See code	1	12	40	Footnote 2
	3 ⁵ / ₈	18	16	See Section 3.3	1/2	See code	1	16	30	Footnote 2
				Brick, concrete or masonry			1	10	33	Footnote 2

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

¹Minimum nominally 2-by-4 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.

⁴Insulation installation details and specifications as described in Section 4.1.

⁵For all Table 1 systems.

TABLE 3—ASSEMBLIES FOR USE WITH TYPE I, II, III AND IV CONSTRUCTION^{2,3}

FRAMING MEMBERS			INTERIOR SHEATHING			EXTERIOR SHEATHING			INSULATION BOARD THICKNESS MAXIMUM (IN.)	WATER RESISTIVE BARRIER	EIFS COMPONENTS
Metal		Max. Spacing o.c. (in.)	Type	Min. Thickness (in.)	Max. Fastener Spacing o.c. (in.)	Type	Min. Thickness (in.)	Max. Fastener Spacing o.c. (in.)			
Min. Depth (in.)	Min. Gage										
3 ⁵ / ₈	20	16	C36 or C1396	1/2	8	C1396	1/2	8	4	Code-compliant or recognized by ICC-ES and recognized for use in Types I–IV const. ⁴	Wind Devil 2 fasteners; insulation board; standard mesh; Primus, Genesis, or Genesis DM base; DPR finish

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.

³For all Table 1 systems.

⁴Refer to 2018 IBC Section 1402.5 (2015 and 2012 IBC Section 1403.5) for additional requirements.

TABLE 4—FIRE-RATED ASSEMBLIES¹

FRAMING MEMBERS			INTERIOR SHEATHING			EXTERIOR SHEATHING			MAX. INSULATION BOARD THICKNESS (inches)	WATER RESISTIVE BARRIER	EIFS COMPONENTS
Metal		Max. Spacing o.c. (in.)	Type	Min. Thickness (in.)	Max. Fastener Spacing o.c. (in.)	Type	Min. Thickness (in.)	Max. Fastener Spacing o.c. (in.)			
Min. Depth (in.)	Min. Gage										
3 ⁵ / ₈	25	24	Type X C 36 or C 1396	5 ⁵ / ₈	8 field 12 edge	Type X C 1396	5 ⁵ / ₈	8 field 12 edge	4	Code-compliant or recognized by ICC-ES for use in fire-rated assemblies	Standard mesh, Genesis, or Genesis DM base, DPR finish

For SI: 1 inch = 25.4 mm.

¹For all Table 1 systems.

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
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REPORT HOLDER:

TREMCO CPG INC.

EVALUATION SUBJECT:

DRYVIT OUTSULATION® LCMD SYSTEMS 1-5

1.0 REPORT PURPOSE AND SCOPE**Purpose:**

The purpose of this evaluation report supplement is to indicate that Dryvit Outsulation® LCMD Systems 1-5, described in ICC-ES evaluation report ESR-1692, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2019 *California Building Code*® (CBC)

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) and Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2019 *California Residential Code*® (CRC)

2.0 CONCLUSIONS**2.1 CBC:**

The Dryvit Outsulation® LCMD Systems 1-5, described in Sections 2.0 through 7.0 of the evaluation report ESR-1692, comply with CBC Chapters 14 and 26, provided the design and installation are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapters 14, 16 and 26, as applicable.

The products have not been evaluated under Chapter 7A for use in the exterior design and construction of new buildings located in a Fire Hazard Severity Zone within State Responsibility Areas or any Wildland–Urban Interface Fire Area.

2.1.1 OSHPD:

The applicable OSHPD Sections of the CBC are beyond the scope of this supplement.

2.1.2 DSA:

The applicable DSA Sections of the CBC are beyond the scope of this supplement.

2.2 CRC:

The Dryvit Outsulation® LCMD Systems 1-5, described in Sections 2.0 through 7.0 of the evaluation report ESR-1692, comply with CRC Chapters 3 and 7, provided the design and installation are in accordance with the 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report.

The products have not been evaluated under CRC Section R337 for use in the exterior design and construction of new buildings located in a Fire Hazard Severity Zone within State Responsibility Areas or any Wildland–Urban Interface Fire Area.

The products described in this supplement have not been evaluated for compliance with the *International Wildland–Urban Interface Code*®.

This supplement expires concurrently with the evaluation report, reissued May 2022.

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TREMCO CPG INC.

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DRYVIT OUTSULATION® LCMD SYSTEMS 1-5

1.0 REPORT PURPOSE AND SCOPE**Purpose:**

The purpose of this evaluation report supplement is to indicate that Dryvit Outsulation LCMD System, described in ICC-ES evaluation report ESR-1692, 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 LCMD System, described in Sections 2.0 through 7.0 of the evaluation report ESR-1692, complies with the *Florida Building Code—Building* and *Florida Building Code—Residential*, provided the design requirements are 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-1692 for 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 LCMD 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).

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