

**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:**

**EZWALL COATINGS, INC.**

**EVALUATION SUBJECT:**

**R-FACTOR EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)**

**1.0 EVALUATION SCOPE**

**Compliance with the following codes:**

- 2015 and 2012 *International Building Code*® (IBC)
- 2015 and 2012 *International Residential Code*® (IRC)

**Properties evaluated:**

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

**2.0 USES**

R-Factor EIFS is an exterior insulation and finish system (EIFS) complying with IBC Section 1408 and IRC Section R703.9. The system complies with IBC Section 1408.4.1 and IRC Section R703.9 as EIFS with drainage.

The EZWall Coatings R-Factor EIFS described in this report may be used in any type of construction. When used in fire-resistance-rated construction, the system must be installed in accordance with Section 4.6 of this report. When used in Types I, II, III and IV construction, the system must be installed in accordance with Section 4.5.

**3.0 DESCRIPTION**

**3.1 System Components:**

See Table 1. The system consists of a water-resistive coating, adhesively applied expanded polystyrene (EPS) insulation board, base coat, reinforcing mesh and finish coat. The designations “Adhesive 2” and “Adhesive 4” identify variations in the insulation board profile, as described in Section 4.2.

**3.2 Insulation Board:**

Insulation boards must be one of the following:

- a. 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 ICC-ES report.
- b. 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.

The boards may be flat on both faces, or have grooves on the back face. Grooved boards must have 1-inch-wide-by-3/8-inch-deep (25.4 mm by 9.5 mm) square-edge grooves oriented vertically and spaced a maximum of 6 inches (152 mm) on center.

EPS insulation boards 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 UL 723.

**3.3 Substrates:**

The substrate must be one of the following:

- Glass mat gypsum sheathing board complying with ASTM C1177. When used as part of a fire-resistance-rated assembly or in a Type I, II, III or IV construction assembly, the gypsum board must be Type X with a minimum thickness of 5/8 inch (15.9 mm).
- Exposure 1 wood structural panels complying with U.S. 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 R-Factor EIFS system must be installed in accordance with the manufacturer's installation instructions,

specifications and installation details. These are available at <http://www.ezwallcoatings.com/systems>.

**4.2 Drainage:**

Drainage in the R-Factor EIFS – Adhesive 2 system is provided through the use of vertical ribbons of adhesive applied to the back face of grooved insulation boards using a 5/8-inch-by-5/8-inch-by-1-inch (15.8 mm by 15.8 mm by 25.4 mm) U-notched trowel. The boards are installed over the HydroFactor-C/HydroFactor-J water-resistive barrier coating system ([ESR-3172](#)). See Table 1.

Drainage in the R-Factor EIFS – Adhesive 4 system is provided through the use of vertical ribbons of adhesive applied to the back face of flat insulation boards using a 5/8-inch-by-5/8-inch-by-1-inch (15.8 mm by 15.8 mm by 25.4 mm) U-notched trowel. The boards are installed over the HydroFactor-C/HydroFactor-J water-resistive barrier coating system. See Table 1.

Additional installation information for the HydroFactor-C/HydroFactor-J water-resistive barrier coating system is provided in [ESR-3172](#).

**4.3 Wind Design:**

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

**4.4 Weather Protection:**

The R-Factor EIFS system complies with IBC Section 1403.2 and IRC Section R703.1.1.

**4.5 Types I, II, III and IV (Noncombustible) Construction:**

Table 3 describes the assemblies qualified for use in Types I through IV construction (IBC).

**4.6 Fire-resistance Rated Construction:**

Table 4 describes the assemblies qualified for use as one-hour nonload-bearing fire-resistance-rated construction.

**4.7 Special Inspection:**

When use is under the IBC, special inspection of the HydroFactor-C/HydroFactor-J water-resistive barrier coating system must be conducted in accordance with IBC Section 1705.16.1 and [ESR-3172](#).

**5.0 CONDITIONS OF USE**

The R-Factor EIFS 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 installation instructions, installation details and the applicable code. In the event of a conflict between the manufacturer’s published instructions and this report, this report governs.
- 5.2 The 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 EZWALL Coatings, Inc.
- 5.4 Termination of the systems must not be less than 6 inches (152 mm) above finished grade, in accordance with 2015 IBC Section 2603.8 (2012 IBC Section 2603.9) and IRC Section R318.4.

**6.0 EVIDENCE SUBMITTED**

- 6.1 Data in accordance with the ICC-ES Acceptance Criteria for EIFS Clad Drainage Wall Assemblies (AC235), dated January 2015.
- 6.2 Data in accordance with ASTM E2568 and ASTM E2273.

**7.0 IDENTIFICATION**

- 7.1 Each container or package of the coating or reinforcing mesh used as part of the R-Factor EIFS system must be labeled with the EZWall Coatings, 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-3291).

EPS insulation boards must be labeled in accordance with the current ICC-ES evaluation reports in which they are recognized, or in accordance with IBC Section 2603.2 or IRC Section R316.2, as applicable. When use is in Types I, II, III or IV construction, the insulation board labeling shall comply with IBC Section 2603.5.6.

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

**EZWALL COATINGS, INC.**  
**1001 FOREST AVENUE**  
**DALLAS, TEXAS 75215**  
**(214) 428-1886**  
[www.ezcoatings.com](http://www.ezcoatings.com)

**TABLE 1—R-Factor EIFS SYSTEM COMPONENTS<sup>1</sup>**

SYSTEM	WATER-RESISTIVE BARRIER	ADHESIVE	INSULATION BOARD <sup>1</sup> (1.5 inches thick, minimum; 4 inches thick, maximum)	BASE COAT	REINFORCING MESH	FINISH
R-Factor EIFS – Adhesive 2	EZWall Coatings HydroFactor-C/HydroFactor-J (see <a href="#">ESR-3172</a> )	Polybase Wet or AD-1	Grooved	Polybase Wet	R-Factor EIFS fiberglass reinforcing mesh, 4.2 oz/yd <sup>2</sup> minimum weight <sup>2</sup>	EZCRYL
R-Factor EIFS – Adhesive 4		Polybase Wet	Flat			

For SI: 1 inch = 25.4 mm.

<sup>1</sup>See Section 3.2 for insulation board details.

<sup>2</sup>Higher weight meshes are permitted.

TABLE 2—WIND LOAD DESIGN

FRAMING MEMBERS		SUBSTRATE			ALLOWABLE WIND LOAD (psf) <sup>3</sup>	
Type, Minimum Size (inches)	Max. Spacing (inches)	Type	Fastener Type	Max. Fastener Spacing (inches)	Negative	Positive
2x4 wood <sup>1</sup> (nominal)	16	Wood structural panels <sup>4</sup>	6d common nails, 2 inches long	Field – 12 Edge – 6	98 (see Note 5)	See note 2
3 <sup>5</sup> / <sub>8</sub> -inch-deep by No. 18 gage steel	16	Glass-mat gypsum sheathing board, minimum 1/2 inch thick	No. 6 self-drilling screws, 1 <sup>5</sup> / <sub>8</sub> inches long	Field – 12 Edge – 6	38	41

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

<sup>1</sup>Minimum nominally 2x4 wood framing; minimum specific gravity 0.42.

<sup>2</sup>Allowable positive wind load resistance is limited to the capacity of the framing and structural sheathing, determined in accordance with the applicable code.

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

<sup>4</sup>Plywood must be at least 1/2 inch thick; OSB must be at least 7/16 inch thick.

<sup>5</sup>Allowable positive and negative wind load resistance shall not exceed the least of the structural capacity of the sheathing, the structural capacity of the framing, and the structural capacity of the fasteners attaching sheathing to the framing.

TABLE 3—ASSEMBLIES FOR USE IN TYPES I THROUGH IV CONSTRUCTION

FRAMING MEMBERS <sup>5,6</sup>			INTERIOR SHEATHING <sup>1,2,3,4</sup> (TYPE X GYPSUM)		EXTERIOR SHEATHING <sup>1,2,3,4</sup> (TYPE X GYPSUM)		MAX. INSULATION BOARD THICKNESS (inches)	SYSTEM
Metal		Max. Spacing (inches)	Min. Thickness (inch)	Max. Fastener Spacing (inches on center)	Min. Thickness (inch)	Max. Fastener Spacing (inches on center) <sup>3</sup>		
Min. Depth (inches)	Min. Gauge							
3 <sup>5</sup> / <sub>8</sub>	18	16	5/8	Field – 12 Perimeter – 8	5/8	Field – 12 Perimeter – 8	4	R-Factor EIFS-- Adhesive 2
3 <sup>5</sup> / <sub>8</sub>	18	16	5/8	Field – 12 Perimeter – 8	5/8	Field – 12 Perimeter – 8	4	R-Factor EIFS-- Adhesive 4

For SI: 1 inch = 25.4 mm.

<sup>1</sup>All sheathing joints are backed by framing.

<sup>2</sup>Fasteners are minimum prescribed code complying fasteners for attachment of gypsum wallboard to steel studs.

<sup>3</sup>Fasteners are No. 6 self-drilling corrosion-resistant screws of minimum 1<sup>5</sup>/<sub>8</sub>-inch length to penetrate framing minimum 1 inch.

<sup>4</sup>Interior wallboard joints must be taped and treated with joint compound in accordance with ASTM C840 or GA 216.

<sup>5</sup>Fire block of stud cavity of minimum 4 pcf (61.6 kg/m<sup>3</sup>), 4-inch-thick (102 mm) mineral wool insulation required at floor lines.

<sup>6</sup>Openings are to be framed with minimum 43-mil, 0.0478-inch-base-metal-thickness (1.2 mm) corrosion-resistant steel framing.

TABLE 4—FIRE-RESISTANCE-RATED ASSEMBLIES<sup>1,2</sup>

FIRE-RESISTANCE-RATING (hrs)	FRAMING MEMBERS <sup>3</sup>			INTERIOR SHEATHING			EXTERIOR SHEATHING			MAXIMUM INSULATION BOARD THICKNESS (inches)
	Min. Depth (inches)	Min. Gauge	Max. Spacing (inches)	Type	Min. Thickness (inch)	Max. Fastener Spacing (inches on center)	Type	Min. Thickness (inch)	Max. Fastener Spacing (inches on center)	
1	3 <sup>5</sup> / <sub>8</sub>	18	16	Type X gypsum <sup>5</sup>	5/8	Field- 12 Perimeter- 8 <sup>3,4</sup>	Type X gypsum	5/8	Field- 12 Perimeter- 8 <sup>3,4</sup>	4

For SI: 1 inch = 25.4 mm.

<sup>1</sup>Applicable to all EZ Wall Coatings R-Factor EIFS materials listed in Table 1.

<sup>2</sup>All board joints are blocked.

<sup>3</sup>Fasteners are minimum No. 6 1<sup>1</sup>/<sub>4</sub>-inch-long (32 mm), self-tapping, corrosion-resistant bugle head screws.

<sup>4</sup>Fasteners are No. 6 drywall screws having sufficient length to penetrate framing a minimum of 3/8 inch (9.5 mm).

<sup>5</sup>Interior wallboard joints must be covered with tape and joint compound, interior fastener heads are covered with joint compound in accordance with ASTM C840 or GA 216.