

# **ICC-ES Evaluation Report**

**ESR-4410** 

Issued August 2020

This report is subject to renewal August 2021.

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A Subsidiary of the International Code Council®

**DIVISION: 09 00 00—FINISHES** 

Section: 09 24 00—Portland Cement Plastering

**REPORT HOLDER:** 

KEMSETUSA, INC.

**EVALUATION SUBJECT:** 

**EKOPLAST50** 

### 1.0 EVALUATION SCOPE

### Compliance with the following codes:

- 2018 International Building Code® (IBC)
- 2018 International Residential Code® (IRC)

### Properties evaluated:

- Structural
- Durability
- Types I, II, III and IV (Noncombustible) Construction
- Thermal Resistance (*R*-value)

For evaluation for compliance with codes adopted by Los Angeles Department of Building and Safety (LADBS), see ESR-4410 LABC and LARC Supplement.

### **2.0 USES**

EkoPlast-50 is a cementitious exterior wall covering installed over exterior walls of wood framed, concrete or masonry construction. When installed in accordance with Section 4.3 of this report, the EkoPlast-50 plaster may be installed on concrete or concrete masonry walls required to be Type I, II, III, IV and V construction.

### 3.0 DESCRIPTION

#### 3.1 General:

The EkoPlast-50 is a factory-prepared mixture of portland cement, Perlite, glass beads and proprietary ingredients and is reinforced with wire fabric or metal lath. The product is supplied in 44-pound (20 kg) bags.

#### 3.2 Materials:

3.2.1 EkoPlast-50: EkoPlast-50 plaster is a factoryprepared mix consisting of Type 1 cement complying with ASTM C150, Perlite, glass beads and proprietary ingredients. The product is a noncombustible material when tested in accordance with ASTM E136.

#### 3.2.2 Lath:

Wire Fabric Lath or Metal Lath: No. 17 gage [0.058 inch (1.47 mm)] by  $1^{1}/_{2}$ -inch (38 mm), woven-wire fabric lath complying with ASTM C1063 or metal lath complying with the ICC-ES Acceptance Criteria for Metal Plaster Bases (Lath) AC191 and recognized in a current ICC-ES evaluation report. The lath must be furred a minimum of 1/4inch (6.4 mm) from the solid substrate after installation.

3.2.3 Water-resistive Barrier: Application of the waterresistive barrier must comply with IBC Section 1403.2 or IRC Section R703.2. Except as described below for woodbased sheathing, the water-resistive barrier must be either a minimum of one layer of asphalt felt complying with ASTM D226, Type I, or a water-resistive barrier recognized as equivalent to ASTM D226, Type I, in a current ICC-ES evaluation report as complying with the ICC-ES Acceptance Criteria for Water-resistive Barriers (AC38).

When installation is over wood-based sheathing, the water-resistive barrier must be a minimum of two layers of ASTM E2556, Type II barrier as set forth in IBC Section 2510.6 or Grade D kraft building paper in accordance with IRC Section R703.7.3, or an equivalent recognized in a current ICC-ES evaluation report.

- 3.2.4 Vapor Retarder: Protection against condensation must be provided in accordance with IBC Section 1404.3. Under the IRC, a vapor retarder must be provided in accordance with IRC Section R702.7, unless its omission is permitted under the exceptions in IRC Section R702.7.
- 3.2.5 Thermal Resistance (R-value): The EkoPlast-50 has a thermal resistance (R-value) of 0.97°F•ft2•h/Btu at a thickness of <sup>7</sup>/<sub>8</sub>-inches (22.2 mm) at a mean temperature of 75°F (24°C).
- 3.2.6 Flashing: Flashing complying with IBC Section 1404.4 or IRC Section R703.4, as applicable, must be provided.

### 4.0 INSTALLATION

### 4.1 General:

EkoPlast-50 must be applied in accordance with KemsetUSA, Inc. printed installation instructions by handtroweling or machine spraying in one or two coats to a minimum thickness of 7/8-inches (22.2 mm). The EkoPlast-50 plaster must be mixed with water using a low-speed mixer. The mix ratio is 3.0 gallons (11.5 L) of water to each 44 pounds (20 kg) of dry plaster mix. The product must be applied at ambient air temperatures between 45°F and



100°F (7°C and 38°C). The water-resistive barrier must be applied as described in Section 3.2.3.

EkoPlast-50 must be installed over wood framing members having a minimum specific gravity of 0.42 sheathed with minimum <sup>15</sup>/<sub>32</sub>-inch-thick (11.1 mm) Exposure 1 or Exterior plywood complying with US DOC PS1. The wood framing and sheathing must be installed in accordance with the applicable code. The plaster must be applied over metal lath complying with Section 3.2.2. The lath must be attached to the framing members using 1.5-inch long (38 mm), 3/8-inch (9.5 mm) head diameter, 1/8-inch (3.2 mm) diameter barbed shank roofing nails at 8 inches (203 mm) on center. The plaster must then be applied to the lath in accordance with Section 4.1 of this report.

### 4.2 Wind Resistance:

The allowable wind load for the EkoPlast-50 plaster system installed over wood framing assemblies sheathed with plywood described in Section 4.1 is 123.3 psf (5.90 kPa) for allowable positive wind load and 24.5 psf (1.17 kPa) for allowable negative wind load.

Framing must be designed to resist the applicable design forces. The maximum allowable deflection of the framing components must not exceed L/360, where L is the height of the framing members.

# 4.3 Types I, II, III and IV (Noncombustible) Construction:

When installed over concrete or concrete masonry, the EkoPlast-50 may be installed on walls required to be of Type I, II, III or IV construction.

### 5.0 CONDITIONS OF USE

The EkoPlast-50 product 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 Materials and methods of installation must comply with this report and KemsetUSA, Inc. printed installation instructions. The report holder's printed installation instructions must be available at the jobsite at all times during installation. In the event of a conflict between this report and the report holder's printed installation instructions, this report governs.

### 6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with Sections 4.1, 4.2 and 4.3 of the ICC-ES Acceptance Criteria for Cementitious Exterior Wall Coatings (AC11), dated January 2013 (editorially revised May 2018).
- 6.2 Report of ASTM E136 test.

### 7.0 IDENTIFICATION

- 7.1 The factory-prepared mix is delivered to the jobsite in water-resistant bags labeled or printed with the following information:
- Name and address of the report holder (KemsetUSA, Inc.) and the evaluation report number (ESR-4410).
- Product name (EkoPlast-50) and component information.
- c. Weight of packaged mix.
- Storage instructions.

- Maximum amount of water that may be added and conditions that must be considered in determining the actual amounts of water added during field-mixing.
- f. Curing instructions.

info@kemset.com

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

KEMSETUSA, INC. 326 N. AVALON BLVD. WILMINGTON, CALIFORNIA 90744 (562) 285-2790 www.kemset.com



## **ICC-ES Evaluation Report**

# **ESR-4410 LABC and LARC Supplement**

Issued August 2020

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**DIVISION: 09 00 00—FINSIHES** 

Section: 09 24 00—Portland Cement Plastering

**REPORT HOLDER:** 

KEMSETUSA, INC.

**EVALUATION SUBJECT:** 

**EKOPLAST50** 

### 1.0 REPORT PURPOSE AND SCOPE

### **Purpose:**

The purpose of this evaluation report supplement is to indicate that EkoPlast-50 plaster, described in ICC-ES evaluation report <u>ESR-4410</u>, has also been evaluated for compliance with the codes noted below as adopted by the Los Angeles Department of Building and Safety (LADBS).

### Applicable code editions:

- 2020 City of Los Angeles Building Code (LABC)
- 2020 City of Los Angeles Residential Code (LARC)

### 2.0 CONCLUSIONS

The EkoPlast-50 plaster, described in Sections 2.0 through 7.0 of the evaluation report <u>ESR-4410</u>, complies with the LABC Chapter 25 and LARC Section R703, and is subjected to the conditions of use described in this supplement.

### 3.0 CONDITIONS OF USE

The EkoPlast-50 plaster, described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report ESR-4410.
- The design, installation, conditions of use and identification are in accordance with the 2018 *International Building Code*<sup>®</sup> (IBC) and *International Residential Code*<sup>®</sup> (IRC) provisions noted in the evaluation report <u>ESR-4410</u>.
- The EkoPlast-50 plaster has been evaluated under the LABC Chapter 7A and the LARC Section R337 for use in the exterior
  design and construction of new buildings located in any Fire Hazard Severity Zone within a State Responsibility Areas or
  any Wildland-Urban Interface Fire Area.

This supplement expires concurrently with the evaluation report, issued August 2020.





## **ICC-ES Evaluation Report**

# **ESR-4410 CBC and CRC Supplement**

Issued August 2020

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**DIVISION: 09 00 00—FINISHES** 

Section: 09 24 00—Portland Cement Plastering

**REPORT HOLDER:** 

KEMSETUSA, INC.

**EVALUATION SUBJECT:** 

**EKOPLAST50** 

#### 1.0 REPORT PURPOSE AND SCOPE

### **Purpose:**

The purpose of this evaluation report supplement is to indicate that EkoPlast-50 plaster, recognized in ICC-ES evaluation report ESR-4410, has 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 the 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 EkoPlast-50 plaster, described in Sections 2.0 through 7.0 of the evaluation report ESR-4410, complies with CBC Chapter 25, provided the design and installation are in accordance with the applicable 2018 *International Building Code*<sup>®</sup> (IBC) provisions noted in the evaluation report.

The EkoPlast-50 plaster may be used in the construction of new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland–Urban Interface Fire Area, provided installation is also in accordance with the 2018 *International Building Code*<sup>®</sup> (IBC) provisions noted in the evaluation report and the additional requirements of CBC Sections 701A.3 and 707A.

- 2.1.1 OSHPD: The applicable OSHPD Sections are beyond the scope of this supplement.
- 2.1.2 DSA: The applicable DSA Sections are beyond the scope of this supplement.

#### 2.2 CRC

The EkoPlast-50 plaster, described in Sections 2.0 through 7.0 of the evaluation report ESR-4410, complies with CRC Chapter 7, provided the design and installation are in accordance with the 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report.

The EkoPlast-50 plaster may be used in the construction of new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland–Urban Interface Area, provided installation is also in accordance with the applicable 2018 *International Residential Code*<sup>®</sup> (IRC) provisions noted in the evaluation report and the additional requirements of CRC Sections R337.1.3.1 and R337.7.

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

This supplement expires concurrently with the evaluation report, issued August 2020.

