

# ICC-ES Evaluation Report

ESR-5397

Issued April 2024


This report also contains:

- LABC/LARC Supplement
- CBC/CRC Supplement
- FBC/FRC Supplement

Subject to renewal April 2025

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<p><b>DIVISION: 07 00 00— THERMAL AND MOISTURE PROTECTION</b></p> <p><b>Section: 07 11 00— Dampproofing</b></p> <p><b>Section: 07 13 00— Sheet Waterproofing</b></p>	<p><b>REPORT HOLDER: AVM INDUSTRIES INC.</b></p>	<p><b>EVALUATION SUBJECT: AUSSIE CLAY 590, 590- PL, 590-SW and 590-PL- SW</b></p>	
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## 1.0 EVALUATION SCOPE

### 1.1 Compliance with the following codes:

- 2024, 2021, 2018 and 2015 [International Building Code® \(IBC\)](#)
  - 2024, 2021, 2018 and 2015 [International Residential Code® \(IRC\)](#)
- For evaluation for compliance with codes adopted by [Los Angeles Department of Building and Safety \(LADBS\)](#) see ESR-5397

### Property evaluated:

- Foundation dampproofing
- Foundation waterproofing

## 2.0 USES

Aussie Clay 590, 590-PL, 590-SW and 590-PL-SW are dampproofing and waterproofing membranes used in below-grade vertical and horizontal applications of concrete construction. The membranes may also be used in property line construction, including soldier pile and lagging, sheet piling, shotcrete soil retention and concrete caisson retaining walls. The membranes are alternatives to the dampproofing and waterproofing material specified in IBC Section 1805.2 or 1805.3, respectively, and IRC Section R406.1 or R406.2, respectively.

## 3.0 DESCRIPTION

### 3.1 General

Aussie Clay 590, 590-PL, 590-SW and 590-PL-SW membranes consist of needle-punched woven and non-woven geotextile fabrics encapsulating a layer of sodium bentonite clay weighing 1 lb/ft<sup>2</sup> (4.8 kg/m<sup>2</sup>). Aussie Clay 590 membrane forms a low permeability membrane once it is exposed to water. Once wetted, the sodium bentonite swells to form a continuous membrane that will self-seal and expand to fill in cracks and voids along the concrete surface. Aussie Clay 590 membrane forms a mechanical bond to the concrete when the geotextile fibers are embedded into the surface of the concrete. The Aussie Clay 590-PL membrane comes with an additional high-density polyethylene (HDPE) liner that is fused to the non-woven side of the membrane. The Aussie Clay 590 SW membrane comes with a specially formulated sodium bentonite blend that allows activation in jobsite conditions with elevated salt content and contaminants (chemicals, acids, hydrocarbons) encapsulated in a woven and non-woven geotextile membrane. The Aussie Clay 590 SW-PL membrane

comes with additional HDPE liner that is fused to the non-woven side of the membrane. The membranes come in rolls of different widths and lengths.

The Aussie Clay 590, 590-PL, 590-SW and 590-PL-SW membranes have a maximum hydrostatic pressure resistance of 119 feet of water [51.5 psi (355 kPa)] when applied in accordance with Section 4.0 and tested in accordance with ASTM D751.

## 4.0 INSTALLATION

**4.1 General:** Installation of Aussie Clay 590, 590-PL, 590-SW and 590-PL-SW membranes must comply with this report and the manufacturer's published installation instructions. The manufacturer's published installation instructions must be available at the jobsite at all times during installation.

The membranes must be installed in below-grade horizontal or vertical applications in which the membranes will be properly confined with the concrete construction. The membrane should not be used with stay-in-place concrete forming, use with removable forming products only. Side laps and end laps seams must be overlapped a minimum of 2 inches (51 mm). The membrane shall be in full contact with the wall and soil at all times.

**4.2 Shotcrete Applications:** Aussie Clay 590, 590-PL, 590-SW and 590-PL-SW membranes are approved for shotcrete applications over wood lagging treated in accordance with IBC Section 2303.1.9 or 2024 IRC R304.1 (2021, 2018 and 2015 IRC R317.1).

## 5.0 CONDITIONS OF USE:

The Aussie Clay 590, 590-PL, 590-SW and 590-PL-SW membranes 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 installation instructions and the applicable code. In the event of a conflict between the manufacturer's published installation instructions and this report, this report governs.
- 5.2 The design and installation of the foundation drainage system is outside the scope of this report. The foundation drainage system must be installed in accordance with IBC Section 1805.4 and IRC Section R405.
- 5.3 The backfill of the foundation must be clean soil free of rocks or any other deleterious material and placed so as not to damage the foundation or membrane system. For jurisdictions adopting the IBC, the backfill must be placed in lifts and compacted. For jurisdictions adopted the IRC, local backfilling requirements must be followed. The design and construction of the foundation is outside the scope of this report.
- 5.4 When used in shotcrete applications, the installation must comply with Section 4.2 of this report.
- 5.5 The membranes are under a quality control program with inspections by ICC-ES.

## 6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with the [ICC-ES Acceptance Criteria for Bentonite Clay, Below-Grade, Dampproofing and/or Waterproofing Sheet Membranes \(AC561\)](#), dated February 2024 (editorially revised March 2024).

## 7.0 IDENTIFICATION

- 7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-5397) along with the name, registered trademark, or registered logo of the report holder (AVM Industries, Inc.) must be included in the product label.
- 7.2 In addition, the membranes as described in this report must be identified by a label bearing the distributor's address and the product name (Aussie Clay 590, 590-PL, 590-SW and 590-PL-SW).
- 7.3 The report holder's contact information is the following:

**AVM INDUSTRIES INC.**  
8245 REMMET AVENUE  
CANOGA PARK, CALIFORNIA 91304  
(818) 888-0050  
[www.avmindustries.com](http://www.avmindustries.com)  
[sales@avmindustries.com](mailto:sales@avmindustries.com)

**DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION****Section: 07 11 00—Dampproofing****Section: 07 13 00—Sheet Waterproofing****REPORT HOLDER:**

AVM INDUSTRIES, INC.

**EVALUATION SUBJECT:**

AUSSIE CLAY 590, 590-PL, 590-SW and 590-PL-SW

**1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that Aussie Clay 590, 590-PL, 590-SW and 590-PL-SW dampproofing and waterproofing membranes, described in ICC-ES evaluation report [ESR-5397](#), have 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:**

- 2023 *City of Los Angeles Building Code* (LABC)
- 2023 *City of Los Angeles Residential Code* (LARC)

**2.0 CONCLUSIONS**

The Aussie Clay 590, 590-PL, 590-SW and 590-PL-SW dampproofing and waterproofing membranes, described in Sections 2.0 through 7.0 of the evaluation report [ESR-5397](#), comply with the LABC Chapter 18, and Chapter 4 of the LARC, and are subject to the conditions of use described in this supplement.

**3.0 CONDITIONS OF USE**

The Aussie Clay 590, 590-PL, 590-SW and 590-PL-SW dampproofing and waterproofing membranes described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report [ESR-5397](#).
- The design, installation, conditions of use and identification of the Aussie Clay 590, 590-PL, 590-SW and 590-PL-SW dampproofing and waterproofing membranes are in accordance with the 2021 *International Building Code*® (IBC) provisions noted in the evaluation report [ESR-5397](#).
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 17 and 18, as applicable.

This supplement expires concurrently with the evaluation report issued April 2024.

# ICC-ES Evaluation Report

# ESR-5397 CBC and CRC Supplement

Issued April 2024

This report is subject to renewal April 2025.

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**DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION**

**Section: 07 11 00—Dampproofing**

**Section: 07 13 00—Sheet Waterproofing**

## REPORT HOLDER:

**AVM INDUSTRIES, INC.**

## EVALUATION SUBJECT:

**AUSSIE CLAY 590, 590-PL, 590-SW and 590-PL-SW**

## 1.0 REPORT PURPOSE AND SCOPE

### Purpose:

The purpose of this evaluation report supplement is to indicate that Aussie Clay 590, 590-PL, 590-SW and 590-PL-SW dampproofing and waterproofing membranes, described in ICC-ES evaluation report ESR-5397, have also been evaluated for compliance with the codes noted below.

### Applicable code edition(s):

- 2022 California Building Code (CBC)

For evaluation of applicable Chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2022 California Residential Code (CRC)

## 2.0 CONCLUSIONS

### 2.1 CBC:

The Aussie Clay 590, 590-PL, 590-SW and 590-PL-SW dampproofing and waterproofing membranes, described in Sections 2.0 through 7.0 of the evaluation report ESR-5397, comply with CBC Chapter 18, provided the design and installation are in accordance with the 2021 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapters 17 and 18, as applicable.

#### 2.1.1 OSHPD:

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

#### 2.1.2 DSA:

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

### 2.2 CRC:

The Aussie Clay 590, 590-PL, 590-SW and 590-PL-SW dampproofing and waterproofing membranes, described in Sections 2.0 through 7.0 of the evaluation report ESR-5397, comply with CRC Chapter 4, provided the design and installation are in accordance with the 2021 *International Residential Code*® (IRC) provisions noted in the evaluation report and the additional requirements of CRC Chapter 4.

This supplement expires concurrently with the evaluation report, issued April 2024.

**DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION**  
**Section: 07 11 00—Dampproofing**  
**Section: 07 13 00—Sheet Waterproofing**

**REPORT HOLDER:**

AVM INDUSTRIES, INC.

**EVALUATION SUBJECT:**

AUSSIE CLAY 590, 590-PL, 590-SW and 590-PL-SW

**1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that Aussie Clay 590, 590-PL, 590-SW and 590-PL-SW dampproofing and waterproofing membranes, described in ICC-ES evaluation report ESR-5397, have also been evaluated for compliance with the codes noted below.

**Applicable code editions:**

- 2023 *Florida Building Code—Building*
- 2023 *Florida Building Code—Residential*

**2.0 CONCLUSIONS**

The Aussie Clay 590, 590-PL, 590-SW and 590-PL-SW dampproofing and waterproofing membranes, described in Sections 2.0 through 7.0 of ICC-ES evaluation report ESR-5397, comply with the *Florida Building Code—Building* or *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-5397 for the 2021 *International Building Code*® meet the requirements of the *Florida Building Code—Building* or the *Florida Building Code—Residential*.

Use of the Aussie Clay 590, 590-PL, 590-SW and 590-PL-SW dampproofing and waterproofing membranes have also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* or the *Florida Building Code—Residential*.

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 issued April 2024.