



# ICC-ES Evaluation Report

## ESR-3416

Reissued February 2023

This report is subject to renewal February 2025.

**DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION**  
**Section: 07 25 00—Water-Resistive Barriers/Weather Barriers**  
**Section: 07 27 00—Air Barriers**  
**Section: 07 65 00—Flexible Flashing**

■ 2020, 2015, 2012 and 2008 ICC 700 *National Green Building Standard™* (ICC 700-2020, ICC 700-2015, ICC 700-2012 and ICC 700-2008)

**Attributes verified:**

See Section 3.1.

**REPORT HOLDER:**

PROSOCO, INC.

**2.0 USES**

**EVALUATION SUBJECT:**

**R-GUARD CAT 5® AIR & WATER-RESISTIVE BARRIER SYSTEM**

The R-Guard Cat 5® Air & Water-resistive Barrier System is used as an alternative to the water-resistive barrier specified in 2021 and 2018 IBC Section 1403.2 (2015 and 2009 IBC Section 1404.2) and IRC Section R703.2 when installed over substrates as described in this report in exterior walls of any construction type. The system also may be used as an air barrier material in accordance with IRC Section N1102.4 and 2021, 2018 and 2015 IECC Sections C402.5 and R402.4 (2009 IECC Sections 402.4 and 502.4). The R-Guard FastFlash flashing component of the R-Guard Cat 5® Air & Water-resistive Barrier System may be used as a flashing in accordance with 2021, 2018 and 2015 IRC Section 703.4, when installed in accordance with Section 4.4 of this report.

**1.0 EVALUATION SCOPE**

**1.1 Compliance with the following codes:**

- 2021, 2018, 2015 and 2009 *International Building Code®* (IBC)
- 2021, 2018, 2015, 2012 and 2009 *International Residential Code®* (IRC)
- 2021, 2018, 2015 and 2009 *International Energy Conservation Code®* (IECC)

R-Guard Cat 5® Air & Water-resistive Barrier System complying with ASTM E2570 is used over sheathing where EIFS cladding is to be used in accordance with 2021 and 2018 IBC Section 1407.4.1 (2015 and 2009 IBC Section 1408.4.1) and IRC Section R703.9.2.

For evaluation for compliance with codes adopted by Los Angeles Department of Building and Safety (LADBS), see [ESR-3416 LABC and LARC Supplement](#)

The R-Guard Cat 5® Air & Water-resistive Barrier System installed as a water-resistive barrier and an air barrier material, is recognized for use on Types I, II III, IV and Type V construction. When used on exterior walls of buildings greater than 40 feet above grade in Types I, II, III or IV construction under the 2021, 2018 and 2015 IBC, installation must comply with Exception 1 of 2021 and 2018 IBC Section 1402.5 (2015 IBC Section 1403.5),

**Properties evaluated:**

- Water-resistive barrier
- Air barrier material
- Surface-burning characteristics

**3.0 DESCRIPTION**

**1.2 Evaluation to the following green code(s) and/or standards:**

- 2022 California Green Building Standards Code (CALGreen), Title 24, Part 11
- 2021, 2018, 2015 and 2012 *International Green Construction Code®* (IgCC)
- 2020, 2017, 2014 and 2011 ANSI/ASHRAE/USGBC/IES Standard 189.1—Standard for the Design of High-Performance Green Buildings, Except Low-Rise Residential Buildings

**3.1 General:**

The R-Guard Cat 5® Air & Water-resistive Barrier System consists of: R-Guard Cat 5®/Cat 5 Rain Screen®, R-Guard Joint & Seam Filler, R-Guard PorousPrep and R-Guard FastFlash®.

The attributes of the R-Guard Cat 5® Air & Water-resistive Barrier System have been verified as conforming to the requirements of (i) CALGreen Section 5.407.1 for water-resistive barriers; (ii) 2021 IgCC Section 701.3.1.2, 2018

IgCC Section 701.3.1.1. and 2015 and 2012 IgCC Section 605.1.2.1 for air barriers; (iii) 2020 ASHRAE 189.1 Section 7.3.1.2, 2017 and 2014 ASHRAE 189.1 Section 7.3.1.1 and 2011 ASHRAE 189.1 Section 7.4.2.9 for air barriers; (iv) ICC 700-2020 Sections 602.1.8, 11.602.18, 1202.6 and 13.104.1.4; (v) ICC 700-2015 Section 602.1.8, 11.602.1.8 and 12.6.602.1.8; and (vi) ICC 700-2012 Section 602.1.8, 11.602.1.8 and 12.5.602.1.8; and (vii) ICC 700-2008 Section 602.9 for water-resistive barriers. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. These codes or standards often provide supplemental information as guidance.

**3.1.1 R-Guard Cat 5® Water-Resistive Barrier Coating:** R-Guard Cat 5® water-resistive barrier is a ready-mixed, flexible, polymer-based, roller or spray-applied liquid coating material. It is packaged in 5-gallon (19 L) buckets weighing 54 pounds (24.5 kg) and has a one-year shelf life after the date of manufacture when stored in its original unopened container at temperatures between 40°F (4.4°C) and 80°F (27°C). The coating is an adobe brown color. The R-Guard Cat 5® water-resistive barrier coating has a flame-spread index of 25 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E84.

**3.1.2 R-Guard Cat 5® Rain Screen Water-resistive Barrier Coating:** R-Guard Cat 5® Rain Screen water-resistive barrier coating is identical to the R-Guard Cat 5® Air & Water-Resistive Barrier described in Section 3.1.1, except it is a dark bronze color.

**3.1.3 R-Guard Joint & Seam Filler:** R-Guard Joint & Seam Filler is a single-component, a ready-mixed, flexible, polymer-based, fiber-reinforced seam and crack filling liquid compound. R-Guard Joint & Seam Filler is packaged in 20-ounce (591 mL) and 29-ounce (858 mL) caulk-gun tubes and sausages. It has a one-year shelf life after the date of manufacture when stored in its original unopened container at temperatures between 40°F (4.4°C) and 80°F (27°C).

**3.1.4 R-Guard FastFlash®:** R-Guard FastFlash® is a single-component, ready-mixed, flexible, polymer-based, gun-grade material. R-Guard FastFlash® is packaged in 20-ounce (591 mL) and 29-ounce (858 mL) caulk-gun tubes and sausages. It has a one-year shelf life after the date of manufacture when stored in its original unopened container at temperatures between 40°F (4.4°C) and 80°F (27°C). The R-Guard FastFlash® complies with AAMA 714-19, AAMA 714-15 and AAMA 714-12 in accordance with 2021 and 2018 IBC Section 1404.4 and 2021, 2018 and 2015 IRC Section R703.4, as applicable. For additional information, see [ESR-4363](#).

**3.1.5 R-Guard PorousPrep:** R-Guard PorousPrep is a single-component liquid applied to the exposed edges of the gypsum board at openings and corners.

### 3.2 Water Vapor Transmission:

The water vapor transmission value of R-Guard Cat 5®, as determined in accordance with ASTM E96, Method A (Dessicant Method) or Method B (Water Method), is as follows:

- ASTM E96 Method A
  - R-Guard Cat 5® at 15 mil [0.015 inch (0.38 mm)]: 9.6 perms
  - R-Guard Cat 5® at 15 mil [0.015 inch (0.38 mm)] thickness over Fast Flash at 12 mil [0.012 inch (0.30 mm)] thickness: 3.6 perms

- R-Guard Cat 5® at 15 mil [0.015 inch (0.38 mm)] thickness over Joint & Seam Filler at 20 mil [0.020 inch (0.51 mm)] thickness: 4.1 perms
- ASTM E96 Method B:
  - R-Guard Cat 5® at 15 mil [0.015 inch (0.38 mm)]: 13.9 perms
  - R-Guard Cat 5® at 15 mil [0.015 inch (0.38 mm)] thickness over Fast Flash at 12 mil [0.012 inch (0.30 mm)] thickness: 5.8 perms
  - R-Guard Cat 5® at 15 mil [0.015 inch (0.38 mm)] thickness over Joint & Seam Filler at 20 mil [0.020 inch (0.51 mm)] thickness: 7.4 perms

### 3.3 Sheathing:

The use of the R-Guard Cat 5® Air & Water-resistive Barrier System is limited to applications over the following sheathing materials:

- Oriented strand board, Exposure 1, complying with U.S. DOC PS-2
- Plywood, Exposure 1 exterior grade, complying with U.S. DOC PS-1.
- Glass-mat faced gypsum recognized in a current evaluation report as complying with ASTM C1177.
- Concrete and concrete masonry complying with the applicable code.

## 4.0 INSTALLATION

### 4.1 General:

The installation of the R-Guard Cat 5® Air & Water-resistive Barrier System 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.

### 4.2 Substrate Preparation:

The R-Guard Cat 5® Air & Water-resistive Barrier System must be installed on the exterior side of vertical exterior walls, over the exterior sheathing. The sheathing type must be one of those listed in Section 3.3 of this report. Sheathing must be installed as required by the applicable code. The sheathing surfaces must be free of all bond-inhibiting materials, including dirt, oil and other foreign matter. The R-Guard Cat 5® Air & Water-resistive Barrier System must not be installed on below-grade surfaces or on surfaces subject to water immersion. For glass-mat faced gypsum based sheathing, R-Guard PorousPrep sealant must be applied to the exposed edges of the gypsum board. Damaged sheathing must be removed and replaced.

### 4.3 R-GUARD Joint & Seam Filler Application:

R-Guard Joint & Seam Filler must be applied to a minimum thickness of 20 wet mils (0.51 mm) to all inside/outside corners, all wall sheathing joints and must cover the heads of all overdriven sheathing fasteners.

### 4.4 R-Guard FastFlash® Application:

R-Guard FastFlash® may be applied in the rough openings, extending onto the sheathing surface 4 to 6 inches (102 to 152 mm) and as an alternative to R-Guard Joint & Seam Filler on substrate joints and seams, fastener heads and penetrations. Flashing complying with the applicable code or recognized in an ICC-ES evaluation report, must be installed at transitions to beams, columns, window and door openings, etc., in a manner as to prevent moisture from entering the wall or to redirect the moisture to the surface of the exterior wall finish or to the R-Guard Cat 5® system that is parts of the means of drainage.

#### 4.5 R-GUARD Cat 5® Water-Resistive Barrier Coating Application:

The R-Guard Cat 5® water-resistive barrier coating must be roller or spray-applied over the sheathing after the R-Guard Joint & Seam Filler and R-Guard FastFlash® have developed a skin on their surfaces. R-Guard Cat 5® must be applied to a uniform wet film thickness of 15 mils [0.015 inch (0.38 mm)]. The coating, rough opening treatment and joint sealant should be applied when air and surface temperatures are between 40°F (4°C) and 110°F (43°C). The coating, filler and rough opening treatment materials must be dry to the touch before covering. At 70°F (21°C) and 50 percent relative humidity, R-Guard Cat 5® coating, R-Guard Joint & Seam Filler and R-Guard FastFlash® are typically dry to the touch within two hours. Curing time varies depending on temperature/humidity and surface conditions; cool and/or dry conditions may slow curing, while hot and/or damp conditions may accelerate curing.

#### 5.0 CONDITIONS OF USE

The R-Guard Cat 5® water-resistive barrier coating 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, and the applicable code. In the event of a conflict between this report and the manufacturer's published installation instructions, this report governs.
- 5.2 For EIFS application, special inspections are required at the jobsite in accordance with 2021 and 2018 IBC Section 1705.17.1(2015 Section 1705.16.1 and 2009 IBC Section 1704.14.1). For other applications, special inspections are not required at the jobsite if installation is done by an installer or contractor trained by the manufacturer, and a certificate of installation is presented to the code official at the completion of each project; otherwise, special inspections are required at the jobsite in accordance with 2021, 2018, and 2015 IBC Section 1705.1.1 (2009 IBC Section 1704.15). Duties of the inspector include verifying field preparation of materials, expiration dates, installation components, curing of components, installation of joints and sealants, applied dry-film thickness and interface of coating material with flashings. Special inspections are not required under the IRC.
- 5.3 Use of the R-Guard FastFlash® as a flashing material, integrated with the R-Guard Cat 5® water-resistive barrier coating, around windows, doors and other openings on exterior walls, is recognized for use under the 2021 and 2018 IBC and 2021, 2018 and 2015 IRC.

- 5.4 The R-Guard Cat 5® water-resistive barrier coating system is limited to installations on vertical walls.
- 5.5 The R-Guard Cat 5® water-resistive barrier coating system must be covered with an exterior wall covering complying with the applicable code or recognized in a current ICC-ES evaluation report.
- 5.6 Repairing of joints and cracks greater than 1/8 inch (3.2 mm) using R-Guard Cat 5® water-resistive barrier coating system is outside the scope of this report.

#### 6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with the ICC-ES Acceptance Criteria for Water-resistive Coatings Used as Weather-resistive Barriers over Exterior Sheathing (AC212), dated February 2015 (editorially revised July 2020).
- 6.2 Data in accordance with AAMA 714 per Section 3.4 of ICC-ES Acceptance Criteria for Flexible Flashing Materials (AC148), dated July 2017(editorially March 2021).
- 6.3 Data in accordance with ASTM E84 (UL 723)

#### 7.0 IDENTIFICATION

- 7.1 Packages of the R-Guard Cat 5®, R-Guard Cat 5® Rain Screen and R-Guard Joint & Seam Filler described in this report must be identified by a label bearing the manufacturer's name (PROSOCO, Inc.) and address, product name (R-Guard Cat 5®, R-Guard Cat 5® Rain Screen or R-Guard Joint & Seam Filler) and product number, identification of components, lot or batch number, quantity of material in packaged mix, storage instructions, date of manufacture, shelf life, and the ICC-ES evaluation report number (ESR-3416).

Packages of the R-Guard PorousPrep and R-Guard FastFlash® described in this report must be identified by a label bearing the manufacturer's name (PROSOCO, Inc.) and address, product name (R-Guard PorousPrep or R-Guard FastFlash®) and product number, identification of components, lot or batch.

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

**PROSOCO, INC.**  
**3741 GREENWAY CIRCLE**  
**LAWRENCE, KANSAS 66046**  
**(800) 255-4255**  
[www.prosoco.com](http://www.prosoco.com)

**DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION**  
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**Section: 07 65 00—Flexible Flashing**

**REPORT HOLDER:**

PROSOCO, INC.

**EVALUATION SUBJECT:****R-GUARD CAT 5® AIR & WATER-RESISTIVE BARRIER SYSTEM****1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that the R-Guard Cat 5® Air & Water-resistive Barrier System, described in ICC-ES evaluation report [ESR-3416](#), 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 R-Guard Cat 5® Air & Water-resistive Barrier System, described in Sections 2.0 through 7.0 of the evaluation report [ESR-3416](#), complies with the LABC Chapter 14, and the LARC Section R703, and is subject to the conditions of use described in this supplement.

**3.0 CONDITIONS OF USE**

The R-Guard Cat 5® Air & Water-resistive Barrier System described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report [ESR-3416](#).
- The design, installation, conditions of use and identification of the R-Guard Cat 5® Air & Water-resistive Barrier System are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report [ESR-3416](#).
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 14 and 17, as applicable.

This supplement expires concurrently with the evaluation report reissued February 2023.

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**Section: 07 65 00—Flexible Flashing**

**REPORT HOLDER:**

PROSOCO, INC.

**EVALUATION SUBJECT:**

R-GUARD CAT 5® AIR & WATER-RESISTIVE BARRIER SYSTEM

**1.0 REPORT PURPOSE AND SCOPE**

**Purpose:**

The purpose of this evaluation report supplement is to indicate that the R-Guard Cat 5® Air & Water-resistive Barrier System, described in ICC-ES evaluation report ESR-3416, 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) 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.

- 2019 *California Residential Code*® (CRC)
- 2019 *California Energy Code*® (CEC)

**2.0 CONCLUSIONS**

**2.1 CBC:**

The R-Guard Cat 5® Air & Water-resistive Barrier System, described in Sections 2.0 through 7.0 of the evaluation report ESR-3416, comply with CBC Chapter 14, 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 and 17 as applicable. Use as an air barrier must be in accordance with the CEC.

**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 R-Guard Cat 5® Air & Water-resistive Barrier System, described in Sections 2.0 through 7.0 of the evaluation report ESR-3416, complies with CRC Chapter 7, provided the design and installation are in accordance with the 2018 *International Residential Code*® provisions noted in the evaluation report and the applicable provisions of the CRC. Use as an air barrier must be in accordance with the CEC.

This supplement expires concurrently with the evaluation report, reissued February 2023.



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**REPORT HOLDER:**

PROSOCO, INC.

**EVALUATION SUBJECT:****R-GUARD CAT 5® AIR & WATER-RESISTIVE BARRIER SYSTEM****1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that the R-Guard Cat 5® Air & Water-resistive Barrier System, described in ICC-ES evaluation report ESR-3416, has also been evaluated for compliance with the codes noted below.

**Applicable code edition:**

- 2020 *Florida Building Code—Building* (FBC)
- 2020 *Florida Building Code—Residential* (FRC)

**2.0 CONCLUSIONS**

The R-Guard Cat 5® Air & Water-resistive Barrier System, as described in Sections 2.0 through 8.0 of the evaluation report ESR-3416, complies with the *Florida Building Code—Building* and *Florida Building Code—Residential*, provided the design requirements are determined in accordance with the the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable. The installation requirements noted in the evaluation report ESR-3416 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 *and Florida Building Code—Residential*, as applicable.

Use of the R-Guard Cat 5® Air & Water-resistive Barrier System for compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* and *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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