ICC-ES Evaluation Report

ESR-2986

Reissued November 2024

Revised May 2025

Subject to renewal November 2025

This report also contains:

- **CA Supplement**

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	REPORT HOLDER: SIKA CORPORATION	EVALUATION SUBJECT: SENERSHIELD-R, SENERSHIELD-RS, FINESTOP-RA AND FINESTOP-RS AIR AND WATER-RESISTIVE BARRIERS AND FLEXIBLE FLASHING	

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

Main references of this report are for 2021 IBC, IRC and IECC. See Table 1 for applicable sections of the code for previous IBC, IRC and IECC editions.

- 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.

Property evaluated:

- Physical properties
- Water resistance
- Air Leakage
- Surface burning characteristics
- Fire-resistance-rated construction
- Types I, II, III and IV construction

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

- 2022 *California Green Building Standards Code* (CALGreen), Title 24, Part 11
- 2024, 2021, 2018, 2015 and 2012 *International Green Construction Code®* (IgCC)
- 2023, 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
- 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

2.0 USES

Senershield-R or Senershield-RS and Finestop-RA or Finestop-RS factory-mixed, liquid-applied, water-resistive barriers are used as alternatives to the water-resistive barrier specified in IBC Section 1403.2 and IRC Section R703.2 in any type of construction. Senershield-R or Senershield-RS and Finestop-RA or Finestop-RS combined with 4-inch or 9-inch (102 mm or 229 mm) Sheathing Fabric (flexible flashing) may be used as an alternative flashing under IBC Section 1404.4 and 2018 and 2015 IRC Section R703.4 (2012 and 2009 IRC Section R703.8), when installed in accordance with Section 4.3.1 of this report. Use as flashing is limited to Type V construction.

Senershield-R or Senershield-RS and Finestop-RA or Finestop-RS may be used to provide an air barrier material in accordance with IRC Section N1102.5.1 and IECC Sections C402.5.1 and R402.4.1 (2012 IECC Sections C402.4.1 and R402.4.1 or 2009 IECC Sections 402.4.1 and 502.4.3) in any type of construction.

The liquid-applied, water-resistive coatings, when installed at a maximum thickness of 20 mils [0.02 inch (0.5 mm)], may be used in fire-resistance-rated exterior wall assemblies recognized in IBC Table 721.1(2), that specify use of building paper, without changing the assigned hourly rating of the assembly.

Senershield-R or Senershield-RS and Finestop-RA or Finestop-RS installed as water-resistive barriers and air barrier materials are recognized for use on Types I, II, III, IV and Type V construction.

3.0 DESCRIPTION

3.1 General:

Senershield-R, Senershield-RS, Finestop-RA and Finestop-RS are factory-mixed, liquid-applied, water-resistive barriers that are applied over substrates described in Section 3.3. The products are packaged in 5-gallon (19 L) pails which weigh 60 pounds (27.2 kg). The products have a shelf life of two years when stored at temperatures no lower than 40°F (4.4°C). The water vapor transmission value of Senershield-R, Senershield-RS, Finestop-RA and Finestop-RS [in accordance with the ICC-ES Acceptance Criteria for Water-resistive Barriers (AC38)] is at least 35 grams/m² per 24 hours, making the products equivalent to a Grade D barrier. Senershield-R, Senershield-RS, Finestop-RA and Finestop-RS have an air leakage rate not exceeding 0.004 cfm/ft2 at 0.3 inch w.g. (1.57 psf) (0.02 L/s-m2 at 75 Pa). Senershield-R, Senershield-RS, Finestop-RA and Finestop-RS 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.

The attributes of the water-resistive barrier have been verified as conforming to the requirements of (i) CALGreen Section 5.407.1 for water-resistive barriers; (ii) 2024 and 2021 IgCC Section 701.3.1.2 for air barriers; (iii) 2018 IgCC Section 701.3.1.1 for air barriers; (iv)2015 and 2012 IgCC Section 605.1.2.1 for air barriers; (v) 2023 and 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; (vi) ICC 700-2020 Section 602.1.8, 11.602.1.8, 1202.6 and 13.104.1.4; (vii) ICC 700-2015 Sections 602.1.8, 11.602.1.8 and 12.6.602.1.8; (viii) ICC 700-2012 Sections 602.1.8, 11.602.1.8 and 12.5.602.1.8; and (ix) 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.

3.2 Sheathing Fabric:

Sheathing Fabric is a balanced mesh of twisted multi-end glass-fiber strands that is used with Senershield-R or Senershield-RS and Finestop-RA or Finestop-RS as a treatment for substrate joints and wrapping of rough openings for windows, doors and through-wall penetrations. The fabric is supplied in 4-inch and 9-inch (102 mm and 229 mm) widths and must be stored in a dry location at temperatures no lower than 40°F (4.4°C).

3.3 Exterior Sheathing or Substrate:

3.3.1 Flexible Flashing: Installation of the Flexible Flashing system is limited to use with:

- Exterior-grade water-resistant core gypsum sheathing complying with ASTM C1396 and having a minimum 1/2-inch (12.7 mm) thickness
- Glass-mat faced gypsum sheathing complying with ASTM C1177 and having a minimum 1/2-inch (12.7 mm) thickness
- Exposure 1 plywood complying with U.S. DOC PS-1 or PS-2; or Exposure 1 oriented strand board (OSB) complying with U.S. DOC PS-2, and having a minimum 7/16-inch (11.1 mm) thickness

- Cement board sheathing complying with ASTM C1325 and having a minimum 1/2-inch (12.7 mm) thickness
- Uncoated aluminum
- Galvanized Steel
- PVC complying with ASTM D1784
- Concrete and concrete masonry complying with the applicable sections of the applicable codes

3.3.2 Water-resistive Barrier and Air Barrier: Installation of the coating is limited to use with:

- Exterior-grade water-resistant core gypsum sheathing complying with ASTM C1396 and having a minimum 1/2-inch (12.7 mm) thickness
- Glass-mat faced gypsum sheathing complying with ASTM C1177 and having a minimum 1/2-inch (12.7 mm) thickness
- Cement board sheathing complying with ASTM C1325 and having a minimum 1/2-inch (12.7 mm) thickness
- Exposure 1 plywood complying with U.S. DOC PS1 or PS-2; or Exposure 1 oriented strand board (OSB) complying with U.S. DOC PS-2, and having a minimum 7/16-inch (11.1 mm) thickness
- Concrete and concrete masonry complying with the applicable sections of the applicable codes

4.0 DESIGN AND INSTALLATION

4.1 General:

Installation of Senershield-R, Senershield-RS, Finestop-RA and Finestop-RS 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 Exterior Sheathing or Substrate Preparation:

Surfaces must be dry, clean, sound, and free of releasing agents, paint, or other residue or coatings. Substrate must be flat, and free of fins or planar irregularities greater than $^1/_4$ inch in 10 feet (6.4 mm in 3 m).

4.3 Coatings Application:

4.3.1 Flexible Flashing: Rough openings must be wrapped with Sheathing Fabric by applying mixed Senershield-R or Senershield-RS, or Finestop-RA or Finestop-RS, to all surfaces and immediately embedding 4- or 9-inch (102 mm or 229 mm) Sheathing Fabric in accordance with the manufacturer's published installation instructions. A second coat of Senershield-R or Senershield-RS, or Finestop-RA or Finestop-RS can be applied over the Sheathing Fabric to ensure a continuous, void- and wrinkle-free membrane application. All fasteners must be spotted and sheathing joints, terminations, and inside and outside corners must be precoated with Senershield-R or Senershield-RS, or Finestop-RA or Finestop-RS using a spray brush or a 4-inch-wide-by-$^3/_4$-inch (101 mm by 20 mm) nap roller. Immediately, Sheathing Fabric must be placed and centered over wet Senershield-R or Senershield-RS, or Finestop-RA or Finestop-RS at all sheathing joints, terminations, and inside and outside corners, as well as over knot holes and check cracks that may exist in plywood or OSB. Sheathing Fabric must be lapped a minimum of $2^1/_2$ inches (63.5 mm) at intersections. For roller or brush applications, the material must be dry to the touch before application of Senershield-R or Senershield-RS, or Finestop-RA or Finestop-RS to the entire wall surface.

4.3.2 Water-resistive Barrier: A minimum of two 10-mil [0.01 inch (0.2 mm)] wet coats of Senershield-R or Senershield-RS, or Finestop-RA or Finestop-RS is required over OSB, plywood, concrete and concrete masonry. Senershield-R, Senershield-RS, Finestop-RA and Finestop-RS can be applied to Exposure 1 plywood, Exposure 1 OSB, concrete or concrete masonry substrate with a $^3/_4$-inch (20 mm) nap roller or brush to a nominal, uniform wet-film thickness of 10 mils. Prior to application of the second coat, a visual inspection must be done to assure the sheathing surface is blister-free and the coating is free of voids and pinholes. The sheathing and/or coating is repaired, if needed, and then a second coat is applied after the initial coating is sufficiently dry. Senershield-R, Senershield-RS, Finestop-RA or Finestop-RS may be sprayed, in one wet application, using manufacturer-recommended spray equipment to a 20-mil [0.02 (0.4 mm)] thickness over OSB, plywood, concrete and concrete masonry.

Senershield-R, Senershield-RS, Finestop-RA or Finestop-RS can be applied to glass-mat faced gypsum sheathing complying with ASTM C1177, cement board sheathing complying with ASTM C1325, exterior grade gypsum sheathing complying with ASTM C1396, or uncoated aluminum or PVC complying with ASTM D1784, with a $^3/_4$-inch (20 mm) nap roller, spray or brush, to a nominal, uniform wet-film thickness of 10 mils that is free of voids and pinholes.

4.4 Curing and Drying:

The material is allowed to dry for at least two to ten hours before installation of the approved cladding. Curing time varies depending on temperature/humidity and surface conditions. During the curing, the material must be protected from rain and from temperatures below 40°F (4°C) for 24 hours.

4.5 Air Barrier Material:

Installation as an air barrier material must be in accordance with the manufacturer's published installation instructions.

5.0 CONDITIONS OF USE:

The Senershield-R, Senershield-RS, Finestop-RA and Finestop-RS 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 Installation must be done by applicators approved by the manufacturer.

5.3 Special inspection of the water-resistive barrier coating is required at the jobsite in accordance with IBC Section 1704.2 and IBC Section 1705.17.1.

5.4 The barriers must be covered with an exterior wall covering complying with the applicable code or a current evaluation report. A single layer of Grade D building paper to serve as a slip sheet is required when the barriers are used behind cement plaster (stucco).

5.5 Repairing joints and cracks wider than $^{1}/_{8}$ inch, using Senershield-R, Senershield-RS, Finestop-RA or Finestop-RS barrier, is outside the scope of this report.

5.6 For EIFS applications, fire-resistance-rated construction must comply with Section 4.6 of ESR-1878 (Senershield-R or Senershield-RS) or Section 4.6 of ESR-2186 (Finestop-RA or Finestop-RS).

5.7 When used with Sheathing Fabric as flexible flashing, installation is limited to use in buildings of Type V construction.

5.8 The air leakage rate noted in Section 3.1 is for the product used as an air barrier material only. The design and evaluation of an air barrier assembly, with this product as a component, 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 Water-resistive Barriers over Exterior Sheathing (AC212), dated February 2015 (editorially revised June 2024).

6.2 Data in accordance with the ICC-ES Acceptance Criteria for Flexible Flashing Materials (AC148), dated July 2017 (editorially revised May 2024).

6.3 Report containing results of testing in accordance with ASTM E84.

6.4 Report containing results of testing in accordance with ASTM E2178.

7.0 IDENTIFICATION

7.1 Each container of material is identified by the manufacturer's name; the product name; the production date and batch number; shelf life; and the evaluation report number (ESR-2986).

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

SIKA CORPORATION
201 POLITO AVENUE
LYNDHURST, NEW JERSEY 07071
(800) 589-1336
https://us.sika.com/senergy

TABLE 1—APPLICABLE SECTIONS OF THE IBC AND IRC UNDER EDITIONS OF THE CODES

IBC				
2021	**2018**	**2015**	**2012**	**2009**
1403.2		1404.2		
1404.4		1405.4		
Table 721.1(2)				Table 720.1(2)
1704.2				1704.1
1705.17.1	1705.16.1		1705.15.1	1704.14.1
IRC				
2021	**2018**	**2015**	**2012**	**2009**
R703.2				
R703.4			R703.8	
N1102.4.1				
IECC				
C402.5.1			C402.4.1	
R402.4.1			R402.4.1	R502.4.3

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

REPORT HOLDER:

SIKA CORPORATION

EVALUATION SUBJECT:

SENERSHIELD-R, SENERSHIELD-RS, FINESTOP-RA, AND FINESTOP-RS AIR AND WATER-RESISTIVE BARRIERS AND FLEXIBLE FLASHING

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Senershield-R, Senershield-RS, Finestop-RA, and Finestop-RS Air and Water-resistive Barriers and Flexible Flashing, described in ICC-ES evaluation report ESR-2986, 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)
- 2022 *California Energy Code*® (CEC)

2.0 CONCLUSIONS

2.1 CBC:

The Senershield-R, Senershield-RS, Finestop-RA, and Finestop-RS Air and Water-resistive Barriers and Flexible Flashing, described in Sections 2.0 through 7.0 of the evaluation report ESR-2986, comply with CBC Chapters 7 and 14, provided the design and installation are in accordance with the 2021 *International Building Code*® (IBC) provisions noted in the evaluation report and the applicable provisions of the 2022 CBC. Use as an air barrier must be in accordance with the CEC.

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 Senershield-R, Senershield-RS, Finestop-RA, and Finestop-RS Air and Water-resistive Barriers and Flexible Flashing, described in Sections 2.0 through 7.0 of the evaluation report ESR-2986, comply with CRC Chapter 7, provided the design and installation are in accordance with the 2021 *International Residential Code*® (IRC) provisions noted in the evaluation report and the applicable provisions of the 2022 CRC. Use as an air barrier must be in accordance with the CEC.

This supplement expires concurrently with the evaluation report, reissued November 2024 and revised May 2025.