



DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 25 00—Water-Resistive Barrier/Weather Barriers
Section: 07 27 00—Air Barriers

REPORT HOLDER:

SENTRY BUILDING INNOVATIONS

EVALUATION SUBJECT:

SAHARA™ EXCEL HOME AND BUILDING WRAP AND SAHARA™ EVO HOME AND BUILDING WRAP

1.0 EVALUATION SCOPE

Compliance with the following codes:

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

Properties evaluated:

- Physical properties
- Surface-burning characteristic
- Air leakage

2.0 USES

Sahara™ Excel Home and Building Wrap; and Sahara™ Evo Home and Building Wrap are used as water-resistive barriers on the exterior side of exterior walls of buildings of any construction type under the IBC and construction permitted under the IRC. Under the IBC, the products may be used on building of Types I, II, III or IV construction that are not greater than 40 feet (12.2 m) in height above grade plane in accordance with the IBC Section 1402.5, except as permitted under Exception 1 of IBC 1402.5.

Sahara™ Excel and Sahara™ Evo have a water resistance greater than that of a 60-min Grade D paper, which is permitted in Section 2510.6 of the 2021 IBC and IRC Section R703.7.3.

The Sahara™ and Sahara™ Evo may be used to as an air barrier material in accordance with IRC Section N1102.4.1 and IECC Sections C402.5 and R402.4.

3.0 DESCRIPTION

3.1 Sahara™ Excel Home and Building Wrap:

Sahara™ Excel is a synthetic membrane consisting of polypropylene spun-bonded non-woven sheets sandwiching a proprietary coating. Sahara™ Excel Home

and Building Wrap has a nominal weight of 0.33 ounce per square foot (100 g/m²) and is available in various sizes and colors

3.2 Sahara™ Evo Home and Building Wrap:

Sahara™ Evo is a synthetic membrane consisting of a polypropylene woven base scrim coated with a proprietary material. Sahara™ Evo Home and Building Wrap has a nominal weight of 0.21 ounce per square foot (65 g/m²) and is available in various sizes and colors.

3.3 Surface-Burning Characteristics:

Sahara™ Excel and Sahara™ Evo have a flame-spread of less than 25 and a smoke-developed index of less than 450 when tested in accordance of ASTM E84 (UL 723).

3.4 Air Barrier Material:

Sahara™ Excel Home and Building Wrap and Sahara™ Evo Home and Building Wrap have an air leakage rating not exceeding 0.02L/s-m² at 75 Pa [0.004 cfm/ft² at 0.3 inch w.g. (1.57 psf)] when used as an air barrier material in accordance with IRC Section N1102.4.1.

4.0 INSTALLATION

4.1 General:

Installation of Sahara™ and Sahara™ Evo must comply with this report and the report holder's published installation instructions. The report holder's published installation must be available at all times on the jobsite during installation. The installations within this report govern if there are any conflicts between the report holder's published installation instructions and this report.

4.2 Application:

Sahara™ Excel and Sahara™ Evo must be installed after wall framing is completed and before windows and doors are installed. When installing on standing walls, begin unrolling at least 12 inches (305 mm) beyond an outside corner and cover the sill plate by a minimum of 2 inches (51 mm); attach the end of the wrap with nails or staples spaced 18 inches (457 mm) on center. The wrap is then unrolled around the building and fastened with nails or staples spaced 32 inches (813 mm) on center. A minimum of 2 inches (51 mm) of overlap is required for horizontal seams and a minimum 6 inches (152 mm) for vertical seams.

When use is over wood-based sheathing in exterior plaster applications, the installation must be as described in exception to 2018 IRC Section R703.7.3.

When Sahara™ and Sahara™ Evo is used over wood-based sheathing in exterior plaster applications in

accordance with 2021 IBC Section 2510.6 and 2021 IRC Section R703.7.3 installations must be as followed:

- For dry climate zones (B) in accordance with 2021 IBC Section 2510.6.1 or 2021 IRC Section R703.7.3.1, Sahara™ Excel Home and Building Wrap and Sahara™ Evo Home and Building Wrap must be applied in accordance with 2021 IBC Section 2510.6.1 Item 1 or 2 and 2021 IRC Section R703.3.1, Item 1 or 2, as applicable.
- For moist climate zones (A) or marine climate zones (C) in accordance with 2021 IBC Section 2510.6.2 or 2021 IRC Section R703.7.2, Sahara™ Excel and Sahara™ Evo must be applied in Section 2510.6.2 Item 1 or 2021 IRC Section R703.7.3.2 Item 1, as applicable.

4.3 Air Barrier Material:

Sahara™ Excel and Sahara™ Evo, when used as an air barrier material, must be installed in accordance with the manufacturer's published installation instructions and this report.

5.0 CONDITIONS OF USE

The Sahara™ Excel and Sahara™ Evo 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 conflict between the manufacturer's; published installation instructions and this report, this report governs,
- 5.2 The product must be covered by an exterior wall covering complying with the requirements of the applicable code.
- 5.3 The products must not be used where ASTM E2556 Type I or II building paper is required.
- 5.4 This report is based on air leakage rates for the product as an air barrier material only. The design and

evaluation of the air barrier assembly, of which the product is a component, is outside the scope of this report.

- 5.5 For installation on exterior walls on buildings on Type I, II, III and IV construction under the IBC, used is limited to buildings that are maximum 40 feet (12.2 m) in height above grade plane, except as permitted under Exception 1 of Section 1402.5.
- 5.6 The products manufactured are under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with ICC-ES Acceptance Criteria for Water-Resistive Barriers (AC308), dated August 2016 (editorially revised July 2021).
- 6.2 Reports of surface-burning characteristics tests in accordance with ASTM E84.
- 6.3 Reports of air leakage testing in accordance with ASTM E2178.

7.0 IDENTIFICATION

- 7.1 The products described in this report are identified by a label on the container of each roll of membrane and by printing the products, bearing the report holder's name (Sentry Building Innovations) and address, the product name, the manufacturing location and the evaluation number (ESR-5152).
- 7.2 The report holder's contact information is the following:

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