

# ICC-ES Evaluation Report


**ESR-4035**

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<p><b>DIVISION: 07 00 00— THERMAL AND MOISTURE PROTECTION</b></p> <p><b>Section: 07 30 05— Roofing Felt and Underlayment</b></p>	<p><b>REPORT HOLDER: ECO CHIEF PRODUCTS</b></p>	<p><b>EVALUATION SUBJECT: SOLARHIDE™-SRW ROOFING UNDERLAYMENT</b></p>	
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## 1.0 EVALUATION SCOPE

### 1.1 Compliance with the following codes:

- 2015 and 2012 [International Building Code® \(IBC\)](#)
- 2015 and 2012 [International Residential Code® \(IRC\)](#)

### Properties evaluated:

- Physical properties
- Ice barrier
- Fire Classification

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

- 2022 [California Green Building Standards Code \(CALGreen\)](#), Title 24, Part 11
- 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 3.0

## 2.0 USES

Solarhide™-SRW roofing underlayment is an alternative to the ASTM D226, Type I and Type II, roofing underlayment specified in IBC Chapter 15 and IRC Chapter 9. The underlayment may also be used as a component of a classified roof assembly as described in Section 4.5 of this report.

## 3.0 DESCRIPTION

Solarhide™-SRW roofing underlayment consists of laminated layers of woven and non-woven polyethylene and polypropylene fabrics faced on one side with aluminum foil. The underlayment is supplied in 48-inch wide (1219 mm) rolls and has an installed weight of 5.18 pounds per 100 square feet (0.253 kg/m<sup>2</sup>). The underlayment may be installed with either side facing up.

The attributes of the Solarhide™-SRW roofing underlayment have been verified as conforming to the provisions of (i) CALGreen Section A4.407.5; (ii) ICC 700-2020 Section 602.1.13, 11.602.1.13, 1202.9 and 13.104.1.7; (iii) ICC 700-2015 Sections 602.1.13, 11.602.1.13 and 12.6.602.1.13; (iv) ICC 700-2012 Sections 602.1.13, 11.602.1.13 and 12.5.602.1.14; and (v) ICC 700-2008 Section 602.10 for ice 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.

## 4.0 INSTALLATION

### 4.1 General:

Installation must comply with the applicable code, this report and the report holder's published installation instructions. The report holder's published installation instructions must be available at the jobsite at all times during installation.

Prior to application of the underlayment, the deck surface must be free of frost, dust and dirt, loose fasteners, and other protrusions. Damaged sheathing must be replaced.

Installation is limited to solid or closely fitted substrates complying with the requirements of the applicable code. Installation of an approved roof covering can proceed immediately following application of the roofing underlayment. The underlayment is to be covered by the roof covering within the time set forth in the underlayment report holder's published installation instructions. For reroofing applications, the same procedures apply after removal of the existing roof coverings and roofing felts to expose the roof deck.

### 4.2 Applications:

The underlayment must be installed in accordance with IBC Chapter 15 or IRC Chapter 9 and may be laid with either side up starting at the lower edge of the roof, with 4-inch (102 mm) horizontal (head) laps and 6-inch (152 mm) vertical (end) laps.

The underlayment must be fastened to the roof deck using minimum No. 12 gage [0.109 inch (2.77 mm)] minimum shank diameter, corrosion-resistance steel roofing nails having a minimum  $\frac{3}{8}$ -inch-diameter (9.5 mm) heads or minimum 1-inch-diameter (25.4 mm) plastic cap; or No. 16 gage [0.065 inch leg diameter (1.65 mm)] corrosion-resistant staples having minimum  $\frac{7}{16}$ -inch (11.1 mm) crowns with minimum 1-inch-diameter (25.4 mm) plastic caps. The fasteners must be spaced 6 inches (152 mm) on center along both horizontal and vertical laps and 12 inches (305 mm) on center along the middle of the roll in the field of the roof, except in areas subject to high winds where underlayment fastening must comply with high wind attachment requirements specified in IBC Section 1507 or 2015 IRC Section R905.1.1 [2012 IRC Section R905], as applicable. Fasteners must be long enough to penetrate into the sheathing a minimum of  $\frac{3}{4}$  inch (19.1 mm) or through the sheathing, whichever is less. When battens are installed over the underlayment, the underlayment needs only be preliminarily attached pending attachment of the battens or counterbattens.

A single layer of minimum 24-inch-wide (610 mm) underlayment must be installed and centered vertically at all valleys before underlayment in the field, and at all hips and ridges after underlayment in the field.

### 4.3 Ice Barrier:

In areas of the roof required to have an ice barrier under IBC Chapter 15 or IRC Chapter 9, a self-adhering polymer-modified bitumen sheet or a membrane currently recognized in an ICC-ES evaluation report as a self-adhered roof underlayment must be installed and extend a minimum of 24 inches (610 mm) inside the exterior wall line of the building. The roof underlayment, in the field of the roof, must overlap the ice barrier.

### 4.4 Flashing:

Flashing must be in accordance with the applicable code. Flashing around protrusions must be over the lower course of the underlayment and under the upper course of the underlayment, to prevent water backup. When used, metal drip edges must be installed beneath the underlayment at the eaves and over the underlayment at rakes.

#### 4.5 Classified Roofs:

The Solarhide™-SRW roofing underlayment may be used as a component of the following Class A roof assembly:

- Deck: Closely fitted, minimum <sup>15</sup>/<sub>32</sub>-inch-thick (11.9 mm) exterior grade plywood.
- Maximum roof slope: Unlimited, minimum roof slope must be as described in [ESR-2119](#).
- Underlayment: One layer of Solarhide™-SRW with either side facing up in lieu of the underlayment specified in Sections 4.6.3 and 4.6.4 of [ESR-2119](#).
- Roof Covering: DaVinci Roofscapes, LLC Bellaforté Shake, Bellaforté Slate, DaVinci Slate or DaVinci Shake roof shingles installed with a maximum exposure of 12 inches (304 mm) in accordance with [ESR-2119](#).

### 5.0 CONDITIONS OF USE:

The Solarhide™-SRW 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 and the report holder's published installation instructions, and the applicable code. In the event of conflict between the published installation instructions and this report, this report governs.
- 5.2 This report recognizes the use of Solarhide™-SRW as a roof underlayment only. Use of this product as a radiant barrier is outside the scope of this report.
- 5.3 Installation must be limited to roofs with a minimum slope of 2:12 (17 percent slope) or to the minimum slope required for the roof covering in accordance with the applicable code, whichever is greater.
- 5.4 Installation must be limited to use with roof coverings that do not involve hot asphalt or coal-tar pitch.
- 5.5 Installation must be limited to use with solid substrates complying with the applicable code.
- 5.6 Unless installed in accordance with Section 4.5 of this report, installation must be limited to use with solid substrates located in areas where nonclassified roof coverings are permitted, or as a component of classified roofing assemblies when specifically recognized as such in a listing approved by the code official.
- 5.7 Installation must be limited to use with roof coverings that are mechanically fastened through the underlayment to the sheathing or rafters.
- 5.8 Installation must be limited to roofs with ventilated attic spaces in accordance with the requirements of the applicable code.
- 5.9 The underlayment is manufactured in Hangzhou, China, under a quality control program with inspections by ICC-ES.

### 6.0 EVIDENCE SUBMITTED

Data in accordance with the [ICC-ES Acceptance Criteria for Roof Underlayments \(AC188\)](#), dated February 2012 (editorially revised December 2015).

### 7.0 IDENTIFICATION

- 7.1 The Solarhide™-SRW roofing underlayment described in this report is identified by a label on each roll bearing the report holder's name (Eco Chief Products) and address, product name, date of manufacture and the evaluation report number (ESR-4035).
- 7.2 The report holder's contact information is the following:

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