

# **ICC-ES Evaluation Report**

### **ESR-5149**

Reissued August 2024

This report also contains:

- CBC Supplement

Subject to renewal August 2025

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DIVISION: 07 00 00— THERMAL AND MOISTURE PROTECTION

Section: 07 30 05— Roofing Felt and Underlayment REPORT HOLDER:

GCP APPLIED TECHNOLOGIES, INC.

**EVALUATION SUBJECT:** 

GRACE® SELECT SELF-ADHERING ROOF UNDERLAYMENT



## 1.0 EVALUATION SCOPE

## 1.0 Compliance with the following codes:

- 2021, 2018, 2015 and 2012 International Building Code® (IBC)
- 2021, 2018, 2015 and 2012 International Residential Code® (IRC)

### **Properties evaluated:**

- Physical properties
- Water resistance
- Ice barrier
- Fire classification

### 1.1 Evaluation to the following green standards:

- 2022 and 2019 California Green Building Standards Code (CALGreen), Title 24, Part 11
- 2020, 2015, 2012 and 2008 ICC 700 <u>National Green Building Standard</u> (ICC 700-2020, ICC 700-2015, ICC 700-2012 and ICC 700-2008)

## **Attributes verified:**

■ See Section 2.0

### **2.0 USES**

Grace® Select is a self-adhering membrane used as an alternate to the ASTM D226, Type I or Type II, roofing underlayment specified in Chapter 15 of the IBC and Chapter 9 of the IRC. The Grace® Select is also used as an alternate to the ice barrier specified in Chapter 15 of the IBC and Chapter 9 of the IRC. The membrane is also used as a component of classified roofing when installed as described in this report.

The attributes of the Grace® Select has been verified as conforming to the requirements of (i) ICC 700-2020 Sections 602.1.13, 11.602.1.13, 1202.9 and 13.104.1.7; (ii) ICC 700-2015 and ICC 700-2012 Sections 602.1.13, 11.602.1.13 and 12.5.602.1.14; (iii) ICC 700-2008 Section 602.10 for ice barriers; and (iv) 2022 and 2019 CALGreen Section A4.407.5 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.

## 3.0 DESCRIPTION

Grace® Select is a 25-mil-thick (0.678 mm), self-adhering membrane composed of rubberized-asphalt and embossed polyethylene film, available in rolls 36 inches wide (914 mm) and 65 feet long (19.8 m). The rubberized-asphalt surface is backed with release paper.

## 4.0 INSTALLATION

#### 4.1 General:

The membrane must be installed in accordance with this report, the report holder's published application instruction, the approved plans (if applicable), and the applicable provisions of the code. In the case of a conflict amongst these documents, this report governs.

Prior to application of the membrane, the deck surface must be free of frost, dust, dirt, loose nails, or protrusions. Damaged sheathing must be replaced. Installation of the membrane is limited to plywood substrates complying with the requirements of the applicable code. The membrane must not be applied when the ambient air and deck temperatures are below 40°F (4.4°C).

The membrane must be cut into 10- to 15-foot (3- to 5-m) lengths and rerolled loosely. The end of the roll must be secured with corrosion resistant roofing nails. Peel back 1- to 2-feet (300- to 600-mm) of release liner, align the membrane, and continue to peel the release liner from the membrane. Press the membrane in place with heavy hand pressure. Side laps must be a minimum of  $3^{1}/_{2}$  inches (90 mm) and end laps a minimum of 6 inches (150 mm). For valley and ridge application, peel the release liner, center the sheet over the valley or ridge, drape, and press it in place. Work from the center of the valley or ridge outward in each direction and start at the low point and work up the roof.

Alternatively, starting with a full roll of membrane, unroll a 3- to 6-feet (1- to 2-m) piece of membrane leaving the release liner in place. Align the membrane and roll in the intended direction of membrane application. Cut the release liner on top of the roll in the cross direction being careful not to cut the membrane. Peel back minimum 6 inches (150 mm) of the release liner in the opposite direction of the intended membrane application exposing the black adhesive. Hold the release liner with one hand and pull the roll along the deck with the release liner, leaving the applied membrane behind. Use the other hand to apply pressure on the top of the roll. Frequently press the membrane in place with heavy hand pressure.

Install the membrane such that all laps shed water. Always work from the low point to the high point of the roof. Apply the membrane in valleys before the membrane is applied to the eaves. Following placement along the eaves, continue application of the membrane up the roof. The membrane may be installed either parallel or perpendicular to the roof slope.

If the membrane becomes misaligned, the roll must be cut and restarted. After application, the membrane must be inspected, and any defect repaired. "Fish mouths" must be slit, pressed flat and covered with a patch of membrane that extends beyond the damaged area a minimum of 6 inches (152 mm) in all directions.

The membrane is not intended to be left exposed and must be covered by an approved roof covering, immediately after application. For reroofing applications, the same procedures apply after removal of the existing roof covering to expose the plywood roof deck.

#### 4.2 Roof Underlayment:

The Grace<sup>®</sup> Select must be installed as prescribed in IBC Chapter 15 or IRC Chapter 9 where an ASTM D226, Type II or Type II, underlayment is required.

#### 4.3 Ice Barrier:

When used as an ice barrier, the Grace<sup>®</sup> Select must be installed as prescribed in IBC Chapter 15 and IRC Chapter 9 when an ice barrier is required. The membrane must be installed in sufficient courses to extend up the roof for a minimum distance of 24 inches (610 mm) inside the exterior wall line of the building. When used as roof underlayment in the field of the roof, the underlayment 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 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:

Under the 2021, 2018, 2015 and 2012 IBC and IRC, the roofing underlayment may be used as a component of classified roof assemblies consisting of Class A or Class C glass fiber mat asphalt shingles or Class C asphalt organic felt shingles complying with the applicable code, when installed in accordance with this report over a minimum <sup>3</sup>/<sub>8</sub>-inch thick (9.5 mm) plywood deck.

## 5.0 CONDITIONS OF USE:

The Grace<sup>®</sup> Select 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 conflict between the manufacturer's instructions and this report governs.
- **5.2** Installation is limited to plywood substrates, as noted in Section 4.1.
- **5.3** Installation is limited to roofs having a minimum slope of 2:12 (16.67 percent slope) or to the minimum slope required for the roof covering in accordance with the applicable code, whichever is greater.
- **5.4** Installation is limited to use with roof coverings that are mechanically fastened through the underlayment to the sheathing or rafters.
- **5.5** Installation is limited to roofs ventilated in accordance with the applicable code.
- **5.6** The self-adhesive membranes must be installed at air, roof deck and membrane temperatures of 40°F (4.4°C) or above.
- 5.7 Installation is limited to use with roof coverings that do not involve hot asphalt or coal-tar pitch.
- 5.8 Grace® Select is manufactured 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 Roof Underlayments (AC188), dated February 2012 (editorially revised June 2020).
- **6.2** Data in accordance with the ICC-ES Acceptance Criteria for Self-adhered Roof Underlayments for Use as Ice Barriers (AC48), dated February 2012 (editorially revised February 2021).
- 6.3 Reports of testing in accordance with ASTM E108 (UL 790).

## 7.0 IDENTIFICATION

- **7.1** The membrane described in this report is identified by a label on the packaging of each roll of membrane bearing the GCP Applied Technologies, Inc. name and address, the product name, the evaluation report number (ESR-5149).
- 7.2 The report holder's contact information is the following:

GCP APPLIED TECHNOLOGIES, INC. 2325 LAKEVIEW PARKWAY ALPHARETTA, GEORGIA 30009 (617) 876-1400 www.gcpat.com



## **ICC-ES Evaluation Report**

## **ESR-5149 CBC and CRC Supplement**

Reissued August 2024

This report is subject to renewal August 2025.

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

Section: 07 30 05—Roofing Felt and Underlayment

**REPORT HOLDER:** 

GCP APPLIED TECHNOLOGIES, INC.

**EVALUATION SUBJECT:** 

**GRACE® SELECT SELF-ADHERING ROOF UNDERLAYMENT** 

#### 1.0 REPORT PURPOSE AND SCOPE

#### Purpose:

The purpose of this evaluation report supplement is to indicate that Grace<sup>®</sup> Select Self-adhering Roof Underlayment, described in ICC-ES evaluation report ESR-5149, has also been evaluated for compliance with the codes noted below.

#### Applicable code editions:

■ 2022 and 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.

■ 2022 and 2019 California Residential Code (CRC)

## 2.0 CONCLUSIONS

### 2.1 CBC:

The Grace® Select Self-adhering Roof Underlayment, described in Sections 2.0 through 7.0 of the evaluation report ESR-5149, complies with CBC Chapter 15 provided the design and installation are in accordance with the 2021 and 2018 *International Building Code*® (IBC) provisions, as applicable, noted in the evaluation report and the additional requirements of CBC Chapter 15, 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 Grace® Select Self-adhering Roof Underlayment, described in Sections 2.0 through 7.0 of the evaluation report ESR-5149, complies with CRC Chapter 9, provided the design and installation are in accordance with the 2021 and 2018 *International Residential Code®* (IRC) provisions, as applicable, noted in the evaluation report and the additional requirements of CRC Chapter 9, as applicable.

This supplement expires concurrently with the evaluation report, reissued August 2024.

