

# ICC-ES Evaluation Report

ESR-4858

Reissued January 2024


This report also contains:

- CBC Supplement

Subject to renewal January 2025

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<p><b>DIVISION: 07 00 00— THERMAL AND MOISTURE.</b></p> <p><b>Section: 07 30 05— Roofing Felt and Underlayment</b></p>	<p><b>REPORT HOLDER: GCP APPLIED TECHNOLOGIES, INC.</b></p>	<p><b>EVALUATION SUBJECT: GRACE® ULTRA</b></p>	
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## 1.0 EVALUATION SCOPE

### 1.1 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
- Fire classification
- Ice barrier

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

- 2022 and 2019 [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)

## 2.0 USES

Grace® Ultra membrane is a self-adhering membrane used as an alternative to the ASTM D226, Type I and Type II, roofing underlayments specified in Chapter 15 of the IBC and Chapter 9 of the IRC. Grace Ultra membrane 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 Section 4.4 of this report.

## 3.0 DESCRIPTION

Grace® Ultra is 30-mil-thick (0.765 mm), self-adhering membrane composed of butyl rubber-based adhesive and a polyethylene film, available in rolls that are 34 inches wide (864 mm) and 70 feet long (21.3 m). The adhesive is backed with a releasable backing liner.

The attributes of the Grace® Ultra membrane have been verified as conforming to the provisions of (i) 2022 and 2019 CALGreen Section A4.407.5; (ii) ICC 700-2020 Sections 602.1.13, 11.602.1.13, 1202.9 and 13.104.1.7; and (iii) ICC 700-2015 and ICC 700-2012 Sections 602.1.13, 11.602.1.13 and 12.5.602.14 for ice barriers. Note that decisions based 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 often provide supplemental information as guidance.

## 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, the more restrictive requirements govern.

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).

Cut the membrane into 10 to 15 feet (3 to 5 m) lengths and reroll loosely. Tack/secure the end of the roll with a nail. 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 3.5 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. Carefully cut the release liner on top of the roll in the cross direction being careful not to cut the membrane. Peel back about 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. Stop frequently to press the membrane in place with heavy hand pressure. When finished with the roll go back to the beginning, reroll and pull the remaining release paper from the material, finishing the installation.

Consistent with good roofing practice, 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 during application, the membrane becomes misaligned, the roll must be cut and restarted. After application, the membrane is 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 6 inches (152 mm) in all directions. Flashing around protrusions is installed over the membrane to prevent water backup. Other flashing must be installed in accordance with applicable code.

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

### 4.2 Ice Barrier:

When used as an ice barrier, Grace<sup>®</sup> Ultra membrane must be installed as prescribed in IBC Chapter 15 and IRC Chapter 9 where an ice barrier is required. The membranes 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 complying with ASTM D4586. The roof underlayment, in the field of the roof, must overlap the ice barrier.

### 4.3 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.

### 4.4 Classified Roofing:

The roofing underlayment may be used as a component of a classified roof assembly consisting of Class A or Class C glass fiber mat shingle or Class C asphalt organic felt shingles complying with the applicable code, when installed in accordance with the report over a minimum  $\frac{3}{8}$ -inch-thick (9.5 mm) plywood deck.

## 5.0 CONDITIONS OF USE:

The Grace® Ultra 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, the more restrictive requirements govern.
- 5.2 Installation must be limited to plywood substrates complying with the applicable code.
- 5.3 Installation of underlayment is limited to roof slopes of 2:12 (16.67 percent) and greater and installations where the roof covering does not involve hot asphalt or coal tar pitch.
- 5.4 Underlayment recognized through compliance with this criteria are 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 having attics or rafter spaces that are ventilated in accordance with the applicable code.
- 5.6 Apply membrane when the air, roof deck, and membrane are at temperatures of 40°F (4.4°C) or higher.

## 6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with the [ICC-ES Acceptance Criteria for Roof Underlayment \(AC188\)](#), dated February 2012 (editorially revised June 2020).
- 6.2 Data in accordance with the [ICC-ES Acceptance Criteria for Roof Underlayment for Use as Ice Barriers \(AC48\)](#), dated February 2012 (editorially revised February 2021). Specifically, data in accordance with Section 3.1.2 of AC48.
- 6.3 Test reports in accordance with ASTM E108 for fire classifications.

## 7.0 IDENTIFICATION

- 7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-4858) along with the name, registered trademark, or registered logo of the report holder [and/or listee] must be included in the product label. [Electronic labeling is the ICC-ES web address ([www.icc-es.org](http://www.icc-es.org)); specific URL related to the report; or the ICC-ES machine-readable code placed on the aforementioned items.]
- 7.2 In addition, the membrane described in this report are 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-4858).
- 7.3 The report holder's contact information is the following:

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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® ULTRA

**1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that Grace® Ultra membrane, described in ICC-ES evaluation report ESR-4858, has also been evaluated for compliance with the code(s) noted below.

**Applicable code edition(s):**

- 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® Ultra membrane, described in Sections 2.0 through 7.0 of the evaluation report ESR-4858, complies with 2022 and 2019 CBC Chapter 15, provided the design and installation are in accordance with the 2021 and 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of 2022 and 2019 CBC Chapter 15, as applicable.

**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 Grace® Ultra, described in Sections 2.0 through 7.0 of the evaluation report ESR-4858, complies with 2022 and 2019 CRC Chapter 9, provided the design and installation are in accordance with the 2021 and 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report and the additional requirements of 2021 and 2018 CRC Chapter 9, as applicable.

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