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 ICE & WATER SHIELD®; GRACE® SELECT; AND GRACE® ULTRA SELF-ADHERING ROOF UNDERLAYMENTS

1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:
- 2012 and 2009 International Building Code® (IBC)
- 2012 and 2009 International Residential Code® (IRC)

Properties evaluated:
- Physical properties
- Ice barrier

1.2 Evaluation to the following green standards:

Attributes verified:
See Section 2.0

2.0 USES

Grace Ice & Water Shield®, Grace® Select, and Grace® Ultra membranes are used as substitutes for the ice barrier specified in Chapter 15 of the IBC and in Chapter 9 of the IRC.

The attributes of the Grace Ice & Water Shield®, Grace® Select, and Grace® Ultra membranes have been verified as conforming to the requirements of (i) ICC 700-2015 and ICC 700-2012 Sections 602.1.13, 11.602.1.13 and 12.5.602.1.14; and (ii) 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.

3.0 DESCRIPTION

3.1 Grace Ice & Water Shield®:
Grace Ice & Water Shield® is a 40-mil-thick (1.0 mm), self-adhering membrane composed of rubberized-asphalt and embossed polyethylene film, available in rolls 6, 9, 12, 18 and 36 inches wide (152, 229, 305, 457 or 914 mm) and 36, 50, 66.7 and 75 feet long (11, 15.2, 20.3 or 23 m). The rubberized-asphalt surface is backed with release paper.

3.2 Grace® Select:
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.

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

4.0 INSTALLATION

The plywood deck surface must be free from dust, dirt, loose nails or protrusions to ensure a clean, smooth surface for good adhesion. The membrane is cut into 10- to 15-foot (3 to 4.6 m) lengths and rerolled. The backing or release paper is peeled back 1 to 2 feet (305 mm to 610 mm) to align the membrane on the lower edge of the roof before application of the remainder directly to the roof deck by removal of the backing paper and pressing of the membrane into place. Alternatively, starting with a full roll of membrane, an approximately 3- to 6-foot (1-2 m) piece of membrane is unrolled while the release liner is left in place. The membrane must be aligned and rolled in the intended direction of membrane application. The release liner on top of the roll is cut carefully in the cross direction without cutting of the membrane. Approximately 6 inches (152 mm) of the release liner in the opposite direction of the intended membrane application must be peeled back, exposing the black adhesive. The roll is pulled along the roof deck, leaving the applied membrane on the deck. The membrane is pressed to the roof deck by applying hand pressure. The lower edges must be overlapped a minimum of 6 inches and 3 1/2 inches (152 mm and 89 mm), respectively. Starting at the lower edge of the roof eave, the membrane is applied in a manner that extends up the roof a minimum distance of 24 inches (609 mm) beyond the inside exterior wall line of the building. The
membrane may be installed either vertically or horizontally following membrane placement along the lower edge. If the membrane becomes misaligned, the roll must be cut and restarted. After application, the membrane is inspected, and any defects repaired. “Fish mouths” must be slit, pressed flat and covered with a round 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 the applicable code.

Following the membrane application, installation of the roof covering can proceed immediately; the membrane must be covered by a roof covering as soon as possible. For reroofing applications, the same procedures apply, after removal of the existing roof covering to expose the roof deck.

5.0 CONDITIONS OF USE

The Grace Ice & Water Shield®, Grace® Select, and Grace® Ultra membranes 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 and the manufacturer’s published installation instructions. In the event of conflict between the manufacturer’s instructions and this report, this report governs.

5.2 Installation is limited to plywood substrates on structures located in areas where nonclassified roof coverings are permitted.

5.3 The self-adhesive membranes must be installed at ambient temperatures of 40°F (4°C) or above.

5.4 Installation is limited to use with roof coverings that do not involve hot asphalt or coal-tar pitch.

5.5 Grace Ice & Water Shield® is manufactured in Bedford Park, Illinois, and Mount Pleasant, Tennessee; Grace® Select is manufactured in Bedford Park, Illinois; Grace® Ultra is manufactured in Evanston, Illinois, under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Self-adhered Roof Underlayments for Use as Ice Barriers (AC48), dated February 2012.

7.0 IDENTIFICATION

7.1 The membranes 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-1677).

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

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