

# GRACE ULTRA™

Self-adhered architectural roof and façade underlayment for applications requiring superior protection.

### Product Description

Grace Ultra™ roofing underlayment is composed of two waterproofing materials—an aggressive butyl rubber based adhesive backed by a layer of high density cross laminated polyethylene.

The product is 30 mils (0.76 mm) thick making it easy to handle and apply. The unique, advanced adhesive formulation offers premium adhesion to the roof deck, high quality laps, superior seal around roofing fasteners, and outstanding high temperature stability.

The adhesive is backed by a protective plastic release liner that protects its adhesive quality. The release liner is easily removed allowing the adhesive to be bonded tightly to the roof deck.

The membrane comes in a 198 ft<sup>2</sup> (18.4 m<sup>2</sup>) roll, and measures 34 in. (864 mm) wide.

### Features & Benefits

**Superior adhesion**—The membrane bonds firmly to the substrate and forms high quality laps.

**Self sealing**—The membrane meets key building code standards for fastener sealability of self-adhered underlayments.

**Dual barrier protection**—Butyl rubber and polyethylene are combined to form a continuous water, air and vapor barrier providing maximum protection.

**Heat Resistance**— The membrane is specially formulated and will resist temperatures up to 300°F (149°C) for extended periods of time-without degradation of the butyl adhesive.

**Slip resistant surface**—The slip resistant surface maximizes traction for safety without compromising the water integrity of the laps.

**Plastic release**—Plastic is easy to remove and easy to dispose of.

**Grace expertise**—Grace is the recognized leader in self-adhered roofing underlayments and is the innovator and manufacturer of Grace Ice & Water Shield® and Perm-A-Barrier® Membranes.

### Guidelines for Use

Grace Ultra™ membrane can be used as a sloped roof underlayment to help protect against leakage from water that builds up behind ice dams, or from wind-driven rain in applications where the membrane must withstand the highest in-service temperatures for extended periods of time.

### High Temperature Applications

Grace Ultra™ membrane is the appropriate product for all applications where superior heat resistance is needed. In addition, Grace Ultra™ underlayment is the appropriate product for use under certain types of metal roofs (those employing copper, zinc, or Cor-Ten® panels). These metal roofs tend to readily conduct heat to the underlayment making them more likely to expose the membrane to high temperatures. It is up to the contractor and specifier to decide what level of performance is required based on the guidelines provided.

## Installation Procedure

### Surface Preparation

Install Grace Ultra™ membrane directly on a clean, dry, continuous structural deck. Some suitable deck materials include plywood, wood composition, wood plank, metal, concrete, or gypsum sheathing. For all other substrates, contact your local Grace representative.

Remove dust, dirt, loose nails, and old roofing materials. Protrusions from the deck area must be removed. Decks shall have no voids, damaged, or unsupported areas. Repair deck areas before installing the membrane.

Prime concrete and masonry surfaces with Bituthene B1 primer at a rate of 10 sqm/l. Priming is not required for other suitable surfaces provided that they are clean and dry.

### Membrane Installation

Apply Grace Ultra™ membrane in fair weather when the air, roof deck, and membrane are at temperatures of 40°F (5°C) or higher. Apply roof covering material at temperatures of 40°F (5°C) or higher.

Cut the membrane into 10–15 ft (3–5 m) lengths and reroll loosely. Tack/secure the end of the roll with a nail. Peel back 1–2 ft (300–600 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 in. (90 mm) and end laps a minimum of 6 in. (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 3–6 ft (1–2 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 in. (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 vertically or horizontally.

### Precautions & Limitations

- Slippery when wet or covered by frost.
- Consistent with good roofing practice, always wear fall protection when working on a roof deck.
- Release liners are slippery. Remove from work area immediately after membrane application.
- Do not leave permanently exposed to sunlight. Maximum recommended exposure is 60 days.
- Do not install directly on old roof or wall coverings.
- Check with the manufacturer of the metal roof and wall panel system for any special requirements when used under these materials. Do not install directly under metal roof and wall coverings especially sensitive to corrosion, such as zinc, without providing proper ventilation.
- Provide proper roof insulation and ventilation to help reduce ice dams and to minimize condensation. Grace Ultra™ underlayment is a vapor barrier.
- Repair holes, fishmouths, tears, and damage to membrane with a round patch of membrane extending past the damaged area 6 in. (150 mm) in all directions. If fasteners are removed leaving holes in the membrane, they must be patched. The membrane may not self-seal open fastener penetrations.
- Do not install fasteners through the membrane over unsupported areas of the structural deck, such as over the joints between adjacent structural panels.
- Due to its slight rubber-like odor, do not apply where the membrane is exposed to interior living space.
- Place metal drip edge or wood starter shingles over the membrane.
- Compatible with EPDMs (refer to Technical Letter 5, *Chemical Compatibility*). Also for use in tie-ins in EPDM with other Grace underlayments.
- Not compatible with polysulfides, flexible PVC or high concentrations of resin (pitch). For more information, refer to Technical Letter 5.

## **Standard Compliance**

Grace Ultra™ meets the following standards:

- ICC ESR-1677 approval according to AC-48 Acceptance Criteria for Self-Adhered underlayments used as Ice Barriers
- Underwriters Laboratories, Inc. R13399 Class A fire classification under fiberglass shingles and Class C under organic felt shingles
- Underwriters Laboratories, Inc. Classified Sheathing Material Fire Resistance Classification Design Numbers P225, P227, P230, P237, P259, P508, P510, P512, P514, P701, P711, P717, P722, P723, P732, P734, P742, P824

## Product Data

Roll length	70 ft (21.3 m)
Roll width	34 in. (864 mm)
Roll size	198 ft <sup>2</sup> (18.4 m <sup>2</sup> )
Packaging	Corrugated cartons
Roll weight	42 lbs (19.0 kg)
Rolls per pallet	25

## Performance Properties

Property	Value	Test Method
Color	Gray-black	
Thickness, membrane	30 mil (0.76 mm)	ASTM D3767 method A
Tensile strength, membrane	250 psi (1720 kN/m <sup>2</sup> )	ASTM D412 (Die C modified)
Elongation, membrane	250%	ASTM D412 (Die C modified)
Low temperature flexibility	Unaffected @ -20°F (-29°C)	ASTM D1970
Adhesion to plywood	3.0 lbs/in. width (525 N/m)	ASTM D903
Permeance (max)	0.05 Perms (2.9 ng/m <sup>2</sup> s Pa)	ASTM E96
Material weight installed (max)	0.22 lb/ft <sup>2</sup> (1.1 kg/m <sup>2</sup> )	ASTM D461
Adhesive	Butyl based	

\* Estimated values based on testing at a pressure differential of 1.57 psf (75 Pa) of a similar fully-adhered sheet air barrier material, Perm-A-Barrier® Wall Membrane, which has the same 4 mil polyethylene film as Grace Ultra.

[www.grace.com/construction](http://www.grace.com/construction)

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