

## GRACE SELECT™

### Self-adhered roofing underlayment

#### Product Description

Grace Select™ roofing underlayment is composed of two waterproofing materials—a rubberized asphalt adhesive, backed by a layer of high density cross laminated polyethylene.

The product is 25 mils (0.64 mm) thick making it lightweight and easy to handle and apply. The unique, advanced rubberized asphalt formulation allows the membrane to meet industry standards for fastener sealability equivalent to products that are often significantly thicker and heavier.

The rubberized asphalt is backed by a paper release liner that protects its adhesive quality. The release liner is easily removed allowing the rubberized asphalt to be bonded to the roof deck.

The membrane comes in a 195 ft<sup>2</sup> (18.1 m<sup>2</sup>) roll, and measures 36 in. (914 mm) wide.

#### Features & Benefits

**Easy to handle and apply**—The membrane is easy to reposition, easy to install, bonds to the roof deck and forms high quality laps.

**Grace Ripcord® Split Release on Demand**—The Grace Ripcord® is a nylon string that is embedded between the underlayment material and the release liner. The Ripcord® feature gives the installer the option of either splitting the release sheet for easy positioning and installation, or removing the release sheet in one piece.

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

**Lightweight**—The 195 ft<sup>2</sup> roll weighs only a fraction of what competitive materials weigh making transport and handling easier.

**Slip resistant surface**—The slip resistant surface maximizes traction for safety without compromising the water integrity of the laps. The surface film is resistant to scuffing and tracking oil in hot weather

**Reroofable**—Unlike some granular surfaced membranes, Grace Select™ membrane will not adhere to the underside of the exposed roof covering making reroofing easier and less costly.

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

#### Guidelines for Use

Grace Select™ membrane can be used as a sloped roof underlayment to resist water penetration due to wind-driven rain and ice dams. The membrane is designed to meet code based minimum standards of performance in severe climates.

#### Wind-Driven Rain

Sloped roofs protect structures by shedding rain water but they are not waterproof. Storm-driven winds can cause sloped roof coverings to lift. Rain can be easily driven under the roof covering directly to the unprotected deck where it causes leaks and damage to the interior of the structure. Grace Select™ membrane that is applied beneath the sloped roof covering prevents



wind-driven rain from entering the structure. For wind-driven rain protection, full coverage with the membrane is recommended. Since Grace Select™ membrane is a vapor barrier, the roof construction must allow for proper ventilation in full roof coverage applications.

### Ice Dams

For ice dam protection, Grace Select™ underlayment should be adhered at the edge of the roof deck along the eaves. The product should be applied to a point on the roof deck above the highest expected ice dam. Several variables influence the height of ice dams and the membrane coverage required. Local building codes should be consulted for specific requirements. Many variables influence the height of ice dams including climate (particularly the annual snowfall), slope, overhang, valleys, how well the structure is insulated and ventilated, and exposure (sun vs. shade). In addition to placement along the eaves, the product can be used to help prevent roof leaks in a handful of danger zones including valleys, rake edges, around chimneys, and skylights.

## Installation Procedure

### Surface Preparation

Install Grace Select™ underlayment directly on a clean, dry, continuous structural deck. Some suitable deck materials include plywood, wood composition, wood plank, metal, concrete, or gypsum sheathing. 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. Wood planks should be closely butted together. Repair deck areas before installing the membrane.

Prime concrete, masonry surfaces and DensGlass Gold® with Perm-A-Barrier® WB Primer. Prime wood composition and gypsum sheathing with Perm-A-Barrier® WB Primer if adhesion is found to be marginal (refer to Technical Letter 12, *Use on Oriented Strand Board (OSB) Roof Sheathing*). Apply Perm-A-Barrier® WB Primer at a rate of 250–350 ft<sup>2</sup>/gal (6–8 m<sup>2</sup>/L). Priming is not required for other suitable surfaces provided that they are clean and dry.

### Membrane Installation

Apply Grace Select™ 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.

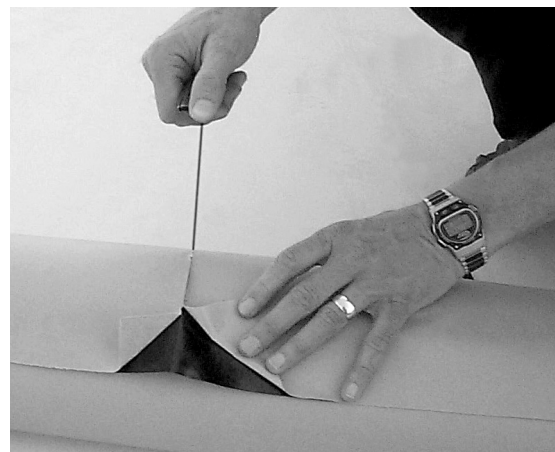
Cut the membrane into 10–15 ft (3–5 m) lengths and reroll loosely. Peel back 1–2 ft (300–600 mm) of release liner, align the membrane, and continue to peel the release liner from the membrane. Press the membrane in place with heavy hand pressure. Side laps

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.

Use smooth shank, electroplated galvanized nails for fastening shingles. Hand nailing generally provides a better seal than power-activated nailing. If nailing of



Grace Select™ roofing underlayment features the innovative Grace Ripcord® split release on demand that is embedded between the underlayment material and the release liner. When pulled, the cord splits the release liner into two separate pieces permitting easy positioning and installation.

the membrane is necessary on steep slopes during hot or extreme cold weather, backnail and cover the nails by overlapping with the next sheet.

Extend the membrane on the roof deck above the highest expected level of water back-up from ice dams and above the highest expected level of snow and ice on the wall sheathing on vertical side walls (dormers) and vertical front walls for ice dam protection. Consider a double layer of membrane in critical areas, such as along the eaves or in valleys and in climates where severe ice dams are anticipated. Apply the membrane to the entire roof deck for wind-driven rain protection. Apply a new layer of Grace Select™ membrane directly over the old Grace underlayment (except for Grace BASIK®, Tri-Flex®, or SYN 15™) in retrofit applications following the standard membrane application procedure.

### 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 30 days.
- Place metal drip edges or wood starter shingles over the membrane.
- Do not fold over the roof edge unless the edge is protected by a drip edge, gutter, or other flashing material.
- Do not install on chamfered edges of wood plank.
- Do not install directly on old roof coverings. For more information, refer to Technical Letter 5, *Chemical Compatibility*.
- Provide proper roof insulation and ventilation to help reduce ice dams and to minimize condensation. Grace Select is an air and vapor barrier.
- Repair holes, fishmouths, tears, and damage 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 asphaltic odor, do not apply where the membrane is exposed to interior living areas.

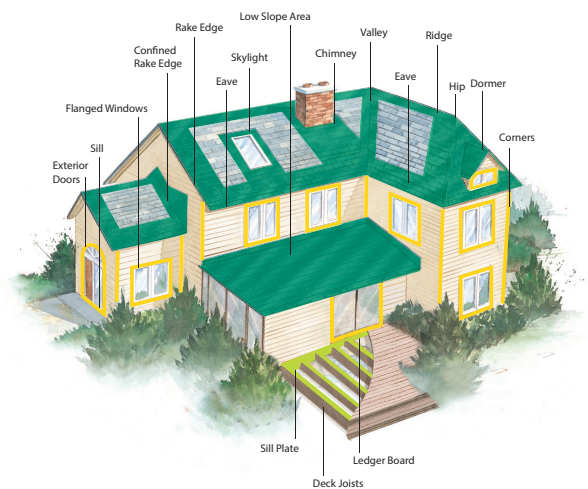
- Refer to product literature for more complete product information.
- Not recommended for roofing in high altitudes and alpine regions.
- Not compatible with EPDM or TPO; use Grace Ultra™ underlayment for tie-ins (refer to Technical Letter 5).
- Not compatible with polysulfides, flexible PVC, or high concentrations of resin (pitch). For more information, refer to Technical Letter 5.

### Standard Compliance

Grace Select meets the following standards:

- ICC ESR-1677 approval under AC-48 Acceptance Criteria for Self-Adhered Underlayments to be used as an Ice Barrier
- Underwriters Laboratories, Inc. Class A fire classification under fiberglass shingles and Class C under organic felt shingles (per ASTM E108/UL 790).

### Use Grace Select™ membrane on all of these critical areas



- Grace Select™ roofing underlayment
- Grace Vycor® Plus Flashing
- Grace Vycor Deck Protector® Flashing

## Product Data

Roll length	65 ft (19.8 m)
Roll width	36 in. (914 mm)
Roll size	195 ft <sup>2</sup> (18.1 m <sup>2</sup> )
Packaging	Corrugated cartons
Roll weight	32 lbs (14.5 kg)
Rolls per pallet	25

## Performance Properties

Property	Value	Test Method
Color	Gray-black	
Thickness, membrane	25 mil (0.64 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)
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)	0.14 lb/ft <sup>2</sup> (0.7 kg/m <sup>2</sup> )	ASTM D461

[www.graceresidential.com](http://www.graceresidential.com)

**For technical assistance call toll free at 866-333-3SBM (3726)**

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