

# Grace Underlayments

## Application Procedures

### Surface Preparation

Install Grace underlayments 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.

### Priming

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). Apply Perm-A-Barrier WB Primer at a rate of 6-8 m<sup>2</sup>/L (250-350 ft<sup>2</sup>/gal). Priming is not required for other suitable surfaces, such as plywood and some gypsum sheathing, provided they are clean and dry.

### Membrane Installation

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

Cut the membrane into 3-5 m (10-15 ft) lengths and reroll loosely. Peel back 300-600 mm (1-2 ft) 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 90 mm (3.5 in.) and end laps a minimum of 150 mm (6 in.). 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 1-2 m (3-6 ft) 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 150 mm (6 in.) 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.

*\*NOTE: For valley and other detailed application areas (for example: rake edges, around dormers), Grace Ice & Water Shield® and Grace Select contain RIPCORD™, a thin monofilament line located in the center of the roll and slightly embedded in the rubberized asphalt. This “Split-Release on Demand” function facilitates a quicker and easier installation of the underlayments.*

Use smooth shank, electroplated galvanized nails for fastening shingles. Hand nailing generally provides a better seal than power-activated nailing. If nailing of the membrane is necessary on steep slopes during hot 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, 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 underlayment directly over the old Grace underlayment in retrofit applications following the standard membrane application procedure. Place metal drip edges or wood starter shingles over the membrane.

### **Precautions and Limitations**

- Grace underlayments are 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 Grace underlayments permanently exposed to sunlight. Maximum recommended exposure guidelines are as follows: Grace Select is 30 days, Grace Ice & Water Shield® is 30 days, Grace Basik® is 30 days and Grace Ultra is 60 days.
- Do not fold Grace underlayments over the roof edge unless the edge is protected by a drip edge, gutter or other flashing material.
- Do not install Grace underlayments on the chamfered edges of wood plank.
- Do not install Grace underlayments directly on old roof coverings. For more information, refer to Technical Letter #5.
- Certain product applications are prohibited in hot desert areas in the southwestern United States. Check with your Grace representative.
- Check with the manufacturer of the metal roofing system for any special requirements when a self-adhered underlayment, such as Grace Ice & Water Shield, Grace Select, Grace Ultra or Grace Basik, is used under metal roofing. Do not install Grace underlayments directly under roof coverings especially sensitive to corrosion, such as zinc, without providing proper ventilation.
- Do not install Grace Select, Grace Ice & Water Shield or Grace Basik under copper, Cor-Ten®, or zinc metal roofing in high altitude climates. These roofs can reach extremely high temperatures due to the low reflectivity, high absorption, and high conductivity of the metals. Use Grace Ultra for these roof types in this climate. Check with your Grace representative.
- Provide proper roof insulation and ventilation. Grace underlayments are air and vapor barriers.
- Repair holes, fishmouths, tears, and damage to membrane with a round patch of membrane, extending past the damaged area 150 mm (6 in.) in all directions. If fasteners are removed leaving holes in the Grace underlayment, the membrane must be patched. Grace underlayments may not self-seal open fastener penetrations.

- Do not install fasteners through the membrane over unsupported membrane areas of the structural deck, such as over the joints between adjacent structural panels.
- Due to its slight asphaltic odor, do not apply Grace Select, Grace Ice & Water Shield, Grace Ultra or Grace Basik where the membrane is exposed to interior living areas.
- Grace Ice & Water Shield, Grace Select and Grace Basik are not compatible with EPDM; use Grace Ultra for tie-ins. Refer to the note on Technical Letter #5.
- Grace underlayments are not compatible with polysulfides, flexible PVC, high concentrations of resin (pitch) and other substances. (See Technical Letter #5.)

### Safety, Storage and Handling

Grace underlayments and accessory products must be handled properly. Read all products labels and Material Safety Data Sheets (MSDS) for proper handling and disposal. Deliver all materials in manufacturer's unopened packages. Do not double stack palletized material.

Store all materials under cover. Avoid prolonged storage above 32°C (90°F).

### GRACE UNDERLAYMENTS PRODUCT SELECTION MATRIX

Application Guidelines	Grace Ultra	Grace Ice & Water Shield®	Grace Select	Grace Basik®
Desert Southwest United States	●	⊗	⊗	○*
Under Copper, Zinc or Cor-Ten® in High Altitude Climates	●	⊗	⊗	⊗
Under Architectural Metal Roofs	●	●	○	⊗
Roofing in High Altitude/Alpine Region	●	●	⊗	⊗
Premium Protection from Severe Ice Dams	●	●	⊗	⊗
As a Vapor Barrier	●	●	●	○
As a Temporary Roof (see product specific appropriate exposure guidelines)	●	●	○	○

\*For application on wood substrates only.

● Best

○ Good

⊗ Not Recommended

**For Technical Assistance call toll free at 866-333-3SBM (3726).**

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Cor-Ten is a registered trademark assigned to USX Corporation.  
DensGlass Gold is a registered trademark of Georgia-Pacific Corporation.

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