

## DESCRIPTION

SA Base IV is an easy-to-apply, self-adhering, Styrene-Butadiene-Styrene (SBS), fiberglass reinforced modified bitumen base sheet designed specifically for use with the StressPly® IV torch-applied membrane roof system. The strong adhesive backing with a peel-off release film makes this base sheet quick and simple to install, helping to save time and money. The topside of SA Base IV is surfaced with the same polyolefin burn-off film as StressPly IV torch-applied membrane to ensure an effective bond is made when properly heated with a torch.

## MATERIALS

1. Primer: Garland SA Primer™, Pro-Stop™ FR Primer (for wood components only)
2. Long-handled (standing) roller with 1/8"-1/4" (3-6 mm) nap for applying primer 1/8" (3 mm) nap for smooth surfaces; 1/4" (6 mm) nap for more porous surfaces
3. SA Base IV self-adhering base sheet, any of Garland's StressPly® IV torch-applied membranes
4. Cold Applied Flashing Adhesive Options: Flashing Bond®, Garla-Flex®
5. Suitable trowel for applying adhesive to flashing details if necessary
6. Roofer's knife with hooked blade
7. Handheld propane torch, propane tank with pressure gauge, roofing torch kit CSA approved
8. ABC-rated fire extinguisher
9. Heavyweight roller; at least a 40-pounds
10. Seam probing tool to check for small voids on end laps

## APPLICATION

### Primer Application Over Approved Roof Boards

Approved Roof Boards:

- GP Gypsum
- DensDeck® Prime
- DensDeck DuraGuard
- Securock®

### Surface Preparation

Sweep or blow away any dust, dirt or sand particles that could interfere with adhesion. After the cover boards are cleaned, apply Garland SA Primer at 0.50 gal./100 sq. ft. Garland SA Primer will dry in 2 hours at 77°F (25°C) and be ready for installation of SA Base IV over the primed surface. For wood components, apply Pro-Stop FR Primer at 0.50 gal./100 sq ft.

**Note:** Do not leave Garland SA Primer or Pro-Stop FR Primer exposed for more than 48 hours without covering it with SA Base IV.

## INSTALLATION

### (a) Base Sheet to Roof Boards

1. Design layout so no side laps are against the flow of water. Fold the membrane back halfway lengthwise to remove the split release film. Press membrane securely into place and repeat with the opposite half of the membrane. Use a heavy, weighted roller over the entire surface of the SA Base IV membrane to properly secure it to the substrate. Work outwards to eliminate voids. When working with full rolls on large roofs, you can leave the membrane in position and remove the split

release film from underneath the membrane. (This technique requires two workers to prevent shifting.)

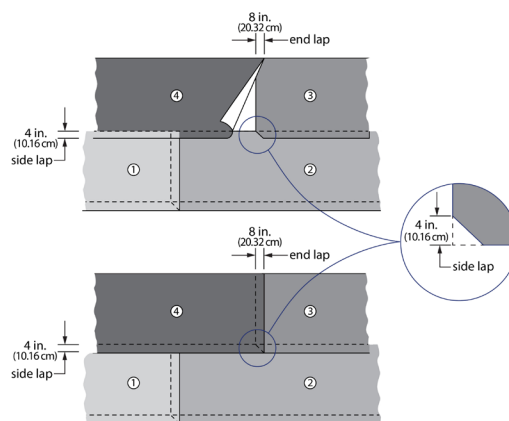
**Note:** On smaller roofs, cut rolls into manageable lengths.

2. Overlap side laps of subsequent SA Base IV membrane lengths 4" (100mm) and end laps 8" (203mm). Offset (stagger) end laps minimum 3' (0.9m). Cut end laps at opposing diagonal corners at a 45° angle approx. 3" (76mm) from the corners to minimize T-seams. Apply a bead or small trowel dab (quarter size) of Garla-Flex or Flashing Bond; trowel grade at the edge of the angled cut to avoid a capillary.
3. Use of a hand-held hot air gun at the T-seam joint area prior to rolling the membrane will maximize adhesion.
4. Use a heavy, weighted roller over the entire surface of the SA Base IV to secure it in place and prevent voids, working outward from the center of the sheet.

### Proper T-Seam Joint Detail (See Drawing)

1. Before adhering SA Base IV endlaps, trim the underlying sheet's lower outside corner at the end of the roll.
2. Follow with the overlapping sheet, trimming the upper outside corner. Corners shall be trimmed on a diagonal angle 5-1/2" (140mm) long from end of roll to outside edge.
3. Width of trim shall be equal in width to the sidelap specified [4" (100mm)] for SA Base IV. Trimmed corners shall be completely covered by application of succeeding courses.

**Note:** Apply quarter size dab of Garla-Flex or Flashing Bond; trowel grade at T-joint area.



### (b) StressPly IV torch-applied Cap Sheet to Base Sheet

1. Sweep or blow away any dust, dirt or sand particles that could interfere with adhesion.
2. Relax cap sheet prior to application (until sheet lies flat) and work with no more than 18' (5.5 m) lengths. This will allow the sheet to lay flat.
3. Snap chalk lines for areas of application to prevent material from drying out in areas that material will not be applied immediately.
4. To install cap sheet, start application at the low point of the roof with appropriate roll width to accommodate off-setting of side laps 18" (457mm) of subsequent layers of cap sheet. Design layout so no side laps are against the flow of water.

**Note:** On smaller roofs, cut rolls into manageable lengths.

5. Lay out the roll in the course to be followed and unroll 6 feet (1.8 m).
6. Using a roofing torch, heat the surface of the coiled portion until the burn-off backer melts away. At this point, the material is hot enough to lay into the substrate.

7. Progressively unroll the sheet while heating and press down with your foot to insure a proper bond.
8. After the major portion of the roll is bonded, re-roll the first 6 feet (1.8 m) and bond it in a similar fashion.
9. Repeat this operation with subsequent rolls with side laps of 4" (100mm) and end laps of 8" (203 mm).
10. Give each lap a finishing touch by passing the torch along the joint and spreading the melted bitumen evenly with a rounded trowel to ensure a smooth, tight seal.
11. Extend underlayment 2" (50 mm) beyond top edges of cants at wall and projection bases.

**Note:** Once the membrane has had a chance to bond, check all laps and joints for full adhesion. If the membrane can be lifted at any area, it is not properly adhered. A seam probing tool can be helpful to check for small voids at laps. If necessary, use a handheld heat welding gun to seal any small un-bonded areas if they exist.

### Flashings

Application below is designed as a reference. Applicator must follow specific details contained in the approved project specifications.

#### (a) Torch-Applied Flashing

1. At all vertical and other flashing details, install the SA Base IV sheet followed by one of the StressPly IV smooth or mineral cap sheets over the already installed field plies.
2. Prime the vertical surface with Garland SA Primer and allow to dry.
3. Over the existing installed field cap, apply a 3' (0.9 m) wide SA Base IV extending min. 6" (152 mm) onto the field of the roof.
4. Apply a 3' (0.9m) wide StressPly IV membrane over base flashing ply extending min. 9" (228mm) onto the field of the roof, making sure to cover the base ply.

**Note:** Once the membrane has had a chance to bond, check all laps and joints for full adhesion. If the membrane can be lifted at any area, it is not properly adhered. Use a handheld heat welding gun to seal any small unbonded areas if they exist.

#### (a) Cold-Applied Flashing

1. At all vertical and other flashing details, install one of the approved base sheets followed by one of the approved smooth or mineral cap sheets over the already installed field plies.
2. Prime the vertical surface with Garland SA Primer and allow to dry.
3. Over the existing installed field cap, apply a 3' (0.9 m) wide approved base sheet extending min. 6" (152.4 mm) onto the field of the roof. Apply a uniform 1/8"-1/4" (3-6 mm) thick troweling of Flashing Bond, Garla-Flex, or approved mastic onto the existing field plies.
4. Before installing the Garland approved cap flashing sheet to the mineral surfaced field ply, apply Flashing Bond, Garla-Flex, or approved mastic wherever the membrane overlaps onto mineral surfacing. Proceed with the approved cap flashing sheet installation. Apply a 3' (0.9 m) wide smooth or mineral cap flashing ply extending min. 9" (228.6 mm) onto the field of the roof, making sure to cover the base ply.

**Note:** Once the membrane has had a chance to bond, check all laps and joints for full adhesion. If the membrane can be lifted at any area, it is not properly adhered. A seam probing tool can be helpful to check for small voids at laps. If necessary, apply Flashing Bond, Garla-Flex, or approved mastic to seal any unbonded areas if they exist.

## CONSIDERATIONS

- Do not install in inappropriate weather - SA membranes rely on warm, dry conditions for proper adhesion.
- All SA material, substrate and ambient temperatures must be 50°F (10°C) and rising through the day for proper adhesion.
- If temperatures are lower than 50°F (10°C), refer to the cold weather guidelines by the NRCA or The Garland Company.

**Note:** Do not apply membrane that has been improperly stored, exposed to moisture, or has lost its tack. **IF THE MATERIAL ISN'T BONDING, STOP THE APPLICATION!**

- Substrates must be free of dust, dirt, oil, debris, and moisture.
- Garland SA Primer must be applied at the specified rate and must be allowed to thoroughly dry.
- Work with manageable lengths of base and cap for the particular job. Where appropriate, cut rolls into 1/3 or 1/2 roll lengths and allow material to relax prior to installation.
- Use caution with the weighted roller at endlaps areas; don't squeeze out too much adhesive
- Refer to OSHA regulations for torch roofing equipment and safety regulations.
- A fire watch for at least two hours after the last torch is turned off is recommended; this includes also checking the roof's underside for smoldering.
- Refer to the 2-ply torch roof system's specification for complete requirements.

## WEATHER CONDITIONS

Do not attempt application if ice, snow, moisture, or dew is present. Bonding substrates must be clean, dry, and free of dust or other inhibitors of proper adhesion. SA Base IV must be applied when the ambient air temperature, roll temperature and substrate temperature are between 50°F (10°C) and 100°F (38°C). Cooler temperatures will negatively impact the self-adhering properties or the dry time of the primer and adhesion of the self-adhering membrane system.

## STORAGE

Store all roofing materials in a protected area prior to application. Store SA Base IV rolls in their original boxes, indoors on pallets, protected from the elements. Rolls that are improperly stored or have been warehoused for prolonged periods of time will potentially negatively impact the self-adhering properties. Store pails in their original container, indoors on pallets protected from the elements. Garland SA Primer and any mastics used need to be kept at 70°F (21°C) for at least 24 hours prior to application.

For more information, visit us at: [www.garlandco.com](http://www.garlandco.com)

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