

Installation Guide

Self-Adhered Membranes for Low Slope Applications





As a leader in the roofing industry, Polyglass products provide years of proven performance. When looking for a durable, multi-ply system, Polyglass SA roof systems with **ADESO** Technology are the answer. Polyglass SA roof systems feature:

- A durable, multi-ply solution
- Granule free side laps and end laps for superior watertight sealing
- Cap sheet color options that complement most shingle roofs

For additional information, visit polyglass.us

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What is ADESO® Technology?

As a leading manufacturer of roofing and waterproofing systems, Polyglass introduced self-adhered modified bitumen membranes to the roofing industry with its patented **ADESO®** Technology Self-Adhered (SA) Membranes.

Years of proven performance in the field, **ADESO** SA membranes comprise the latest in asphalt adhesive technology as well as substantial, proven waterproofing compounds. When installed properly, **ADESO** products will provide a long lasting and durable roof covering.

ADESO self-adhered membranes are unique with a dual-compound technology featuring an APP or SBS formulation on the top weathering side. Available surface options include:

- Granules
- Sand
- Mineral
- Film

The membranes are reinforced with either polyester or fiberglass mats and feature an aggressive self-adhered formulation on the bottom side of the reinforcement.



SEALLap
U.S. PATENT PENDING



FASTLap
U.S. PATENT NO. 5,766,705; 5,843,033 AND 5,964,046

ADESO SA membranes can also feature **SEALLap**®, a factory-applied adhesive treatment at the side seams and **FASTLap**®, a granule-free end lap.



ADVANTAGES of Polyglass ADESO Self-Adhered membranes:

- A multi-layered roof system that will provide long-term performance
- Ease of installation
- Quick end and side lap application
- Adheres to a variety of substrates
- Odorless
- Installs with hand tools
- No open flames
- Safety



TOOLS & ACCESSORIES



Before you begin the installation of Polyglass SA roof system, be sure to have the following tools available:

1. 3" – 4" wide hand rollers (Silicone and Metal)
2. 80 lb linoleum roller for pressing the membrane in place
3. Paint brush for application of primer
4. Trowel for applying adhesive
5. Caulk gun
6. Hand held hot air welding gun
7. Roofers knife with hooked blade
8. Soft soled shoes
9. Gloves



Accessories that you may use when installing the Polyglass SA low-slope roof system include:

1. Polyglass PG 500 Mod-Bit Adhesive or PolyPlus 50
2. Polyglass PG 100 Asphalt Primer
3. WB 3000 Fast-Drying, Water-Based Primer
4. Metal edge flashing
5. Fasteners (if applicable)

Basic installation instructions and best practices when applying Polyglass SA roof membranes for low-sloped roofs.

STORAGE

When storing and handling Polyglass SA membranes:

- Store rolls upright on pallets in dry ventilated indoor areas; do not store rolls on their sides
- Protect rolls from exposure to elements
- Stage the project as products are needed

BASIC INSTRUCTIONS:

- Low-Slope self-adhered roof systems are primarily designed for roofs at 2/12 pitch or less.
- When applying Polyglass SA roof systems, ambient temperatures should be 40°F and rising.
- Do not install when water in any form exists.
- All roof deck application areas must have positive drainage, continuous support, and be structurally sound to support all load requirements of the roofing system.
- Prior to the application, be sure to properly prepare the substrate.
- In re-roofing applications, be sure to remove existing materials and obsolete penetrations and repair any voids or imperfections in the substrate.

Acceptable substrates include:

- Polyisocyanurate insulation standard facer
- DensDeck® Prime Roof Board or DuraGuard® Roof Board
- Securock® Gypsum-Fiber Reinforced Roof Board
- Primed concrete
- Plywood sheathing with bond breaker tape at all joints
- Polyglass Elastobase® Base Sheet
- Polyglass Elastoflex® SA V Base Sheet

Ensure installation of SA plies do not prevent or interfere with ventilation of the existing structure.

For more information, contact your Polyglass sales or technical representative.



Installing SA Base Sheets:

Prior to installation, allow the membranes to relax in the sun for a minimum of 15 minutes.

- Start installation by cutting Elastoflex® SA V base sheet to suitable lengths.
- Lay the membrane flat and align the membrane at the lowest edge of the roof
- Once SA base sheet is in place, fold sheet in half to remove split release film at a 90 degree angle in a constant motion
- After both sides of release film are removed, position the next Elastoflex® SA V membrane by overlapping seams of the top sheet selvage edge or SEALLap® a minimum of 6"
- Press the membrane with firm and even pressure
- Cut a 45 degree angle at the top corner of sheet, and at all build-up of joints such as T-joints and remove protective tape on SEALLap® and press next membrane at seam
- Use hand roller at laps to ensure full adhesion
- Once Elastoflex® SA V membrane is installed, be sure to run 80 lb roller over the roof surface to ensure full adhesion



Installing Metal Edging:

When installing metal edging, prime with either Polyglass PG 100 or other asphaltic primer that meets ASTM D41, WB 3000 primer or other commercially available water-based acrylic primer.

1. The roof flange of the edge metal should be 3" – 4" wide.
2. Install the roof flange of the edge metal over the base sheet strip-in at the lowest point on the roof. Nail the edge metal 4" on center in a staggered pattern.
3. Install Elastoflex® SA V base sheet onto the edge metal leaving 1/2" of edge metal exposed at the eaves.

Installing ADESO SA Cap Sheet

Polyglass SA cap sheets are available in SBS (Elastoflex® SA P) and APP (Polyflex® SA P, Polyfresko® G SA) formulas in eleven colors.

- Ambient temperatures should be 40°F and rising when installing Polyglass SA cap sheets.
- Do not install when water in any form exists.
- All roof deck application areas must have positive drainage, continuous support, and be structurally sound to support the dead load requirements of the roofing system.
- Prior to installing SA cap sheets, be sure the surface is clean of dirt and debris.
- Cut the SA cap sheet to manageable lengths for the conditions and allow the cut sheets to relax prior to installation.
- The cap sheet should be installed with the selvage edge away from the eaves edge.





Lay the membrane on the roof aligned with the eaves edge at the lowest point on the roof.

- Once SA cap sheet is in place, fold sheet in half to remove split release film at a 90 degree angle in a constant motion firmly holding the half of the sheet that is in contact with the roof in place as the liner is removed.
- After both sides of release film are removed, position the next SA cap sheet by overlapping seams of the top sheet selvage edge or SEALLap®.
- Do not remove the remaining release film covering the side lap selvage edge at this time
- The end of each roll of SA cap has a factory end lap selvage edge covered with a release film or FASTLap®. Remove the FASTLap® release film and press the overlapping sheet into place.
- In cooler weather, it is recommended to hot air weld or apply modified asphalt flashing cement at all end lap seams.
- Cut 45 degree angle at all build-up on seams and T-joints.



- Press each sheet into place with firm, even pressure.
- Roll edges and all lap seams firmly with a hand roller to ensure full adhesion.
- After each roll is completed, go over with an 80 pound roller with uniform pressure. Start at the center and work outward to remove trapped air.
- For the succeeding sheet, position it by completely overlapping the selvage edge of the previous sheet.
- Only remove enough of the selvage edge release film on the preceding roll to complete each section of the install.
- When SA cap sheets are installed, be sure to run 80 lb roller over roof surface to ensure full adhesion.
- After 3 full thermal cycles, the roof system can provide a watertight, membrane system.



Do's of Polyglass ADESO Self-Adhered roof systems:

1. Store rolls upright on pallets in dry ventilated indoor areas
2. Install material when ambient temperatures are 40°F degrees and rising
3. Only store and remove product from packaging on the same day of installation
4. Prime all concrete, masonry, metal or metallic surfaces
5. Prime all vertical surfaces
6. Apply to clean, dry, dust-free surfaces
7. Remove split release film at 90 degree angle
8. Roll all SEALLap® and FASTLap® seams to ensure 100% adhesion
9. Reinforce all inside and outside corners
10. Lap granule to granule end laps at 6"
11. Heat weld or use SBS mastic at all laps and joints where adhesive compound laps onto granule surfaces.

Don'ts of Polyglass ADESO Self-Adhered roof systems:

1. Don't store material in direct sunlight
2. Don't install during inclement weather
3. Don't apply to dirty, wet or dusty substrate
4. Don't apply directly to shingles or similar roof coverings

How to transition from a low slope to steep slope:

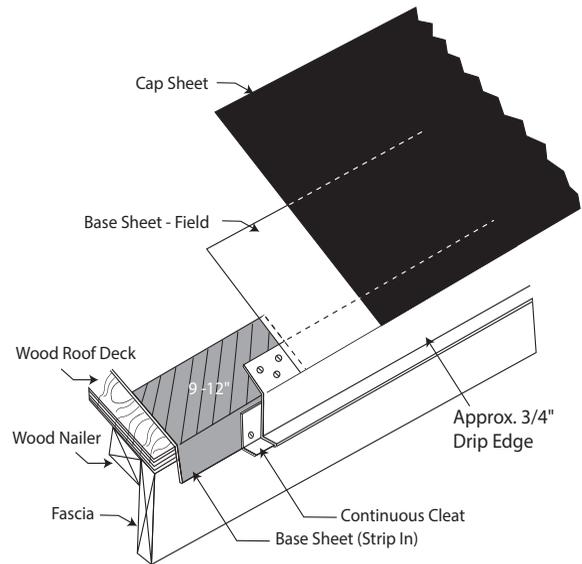
To ensure a watertight transition between the low slope system and the sloped roof, the Elastoflex® SA V base sheet should extend at least 12" beyond the steep slope transition. The Polyglass SA cap sheet should extend up the steep slope part of the roof a minimum of 18" beyond the transition point.

Flashing of walls, roof terminations and penetrations can be done with the Polyglass SA roof system.

Begin installation of steep slope underlayment beginning 2" above slope transition.

Refer to available illustrative details at polyglass.us.

TYPICAL ROOF EDGE DETAIL



- 1 Elastoflex SA V starter strip cut to required width, adhered to deck. Ensure the surface is clean and dust free.
- 2 Prime deck when required or acceptable roof insulation attached to deck. Adhere Elastoflex SA V strip-in-piece to deck and over nailer below edge metal.

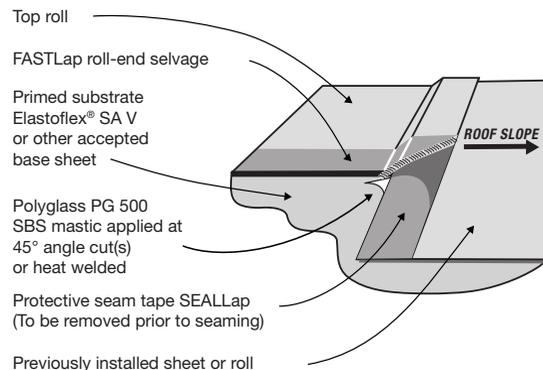
3

Drip edge fastened in accordance with ANSI-SPRI ES-1 standards. Stagger roof nails at 4".

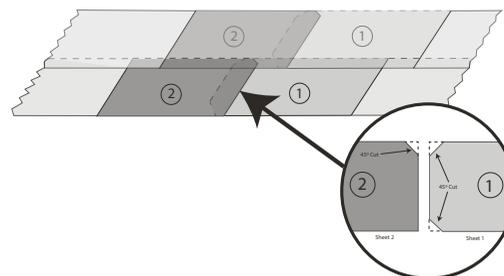
4

Apply Elastoflex SA V membrane to entire roof area and onto the metal drip edge keeping 1/2" back from down-turn in metal. SA cap sheet installed over Elastoflex SA V and onto primed metal.

SEAMING DETAIL FOR SA CAP SHEET



SEAM INTERSECTION TREATMENT - FIELD



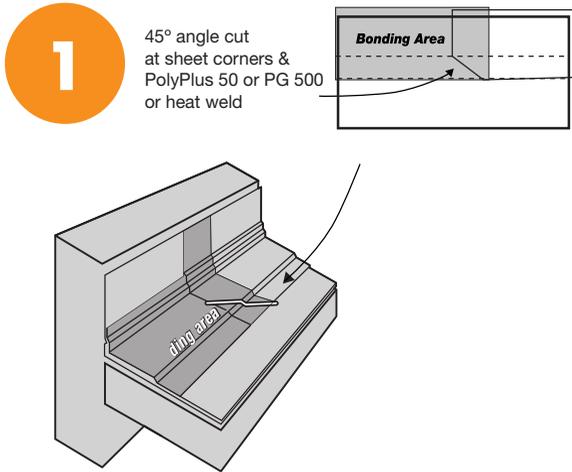
Sequence:

- A. Sheet 1 is applied to substrate.
- B. Triangle piece of approx. 45° is cut off at the bottom corner of sheet 2 (usually at the FASTLap® end of the sheet) and at the top corner of sheet 3 (the side lap selvage edge SEALLap®).
- C. Sheet 2 is aligned and applied to the substrate.
- D. A bead of PolyPlus 50 or Polyglass PG 500 SBS mastic is applied at the angle cuts (see inset) or heat weld.
- E. Sheet 3 is applied.
- F. Top sheet is carefully rolled parallel to both sides of the sealant not on the sealant.

Notes:

The angle cut and seam sealant is to be applied at all self-adhered sheet overlaps (base & cap).

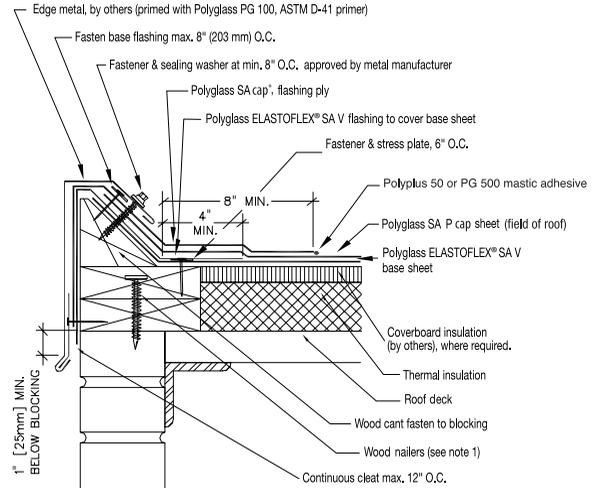
SEAM INTERSECTION TREATMENT - FLASHINGS



1

45° angle cut at sheet corners & PolyPlus 50 or PG 500 or heat weld

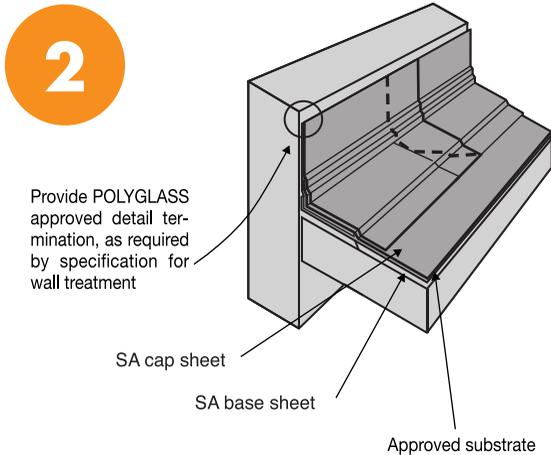
SA RAISED EDGE METAL DETAIL



* Polyglass SA membranes are available in APP and SBS formulations for both base and cap sheets.

Notes:

1. Attach wood nailer and edge metal to wall/deck in accordance with ANSI/SPRI ES-1.
2. Refer to SMACNA recommendations and details regarding metal thickness and cleat requirements.
3. Membrane end laps must be 6" minimum and fully adhered at all membrane in all locations where FASTLap® is not present.
4. All acceptance substrates must be primed with Polyglass PG 100 primer, WB 3000 water-based acrylic primer or other Polyglass approved primer.
5. Thermal insulation must be of suitable type and density to accept **ADESO** self-adhered membranes.
6. Mechanically attached thermal insulation is to be fastened in accordance with insulation manufacturer's approved fastening pattern for project conditions and wind loads.



Provide POLYGLASS approved detail termination, as required by specification for wall treatment

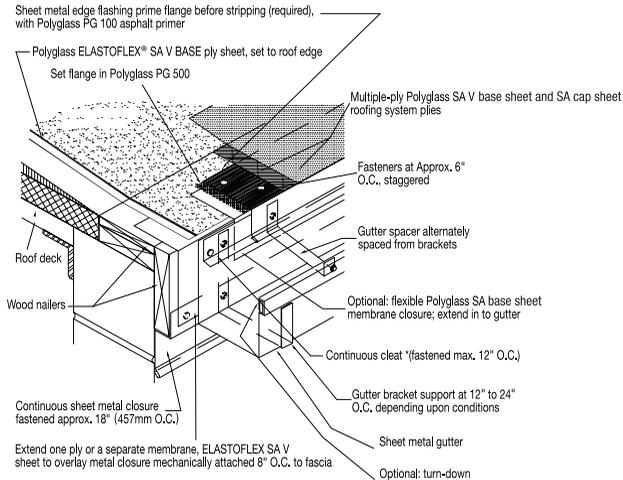
SA cap sheet

SA base sheet

Approved substrate

Refer To Notes On Page 11

SA EDGE AND GUTTER DETAIL

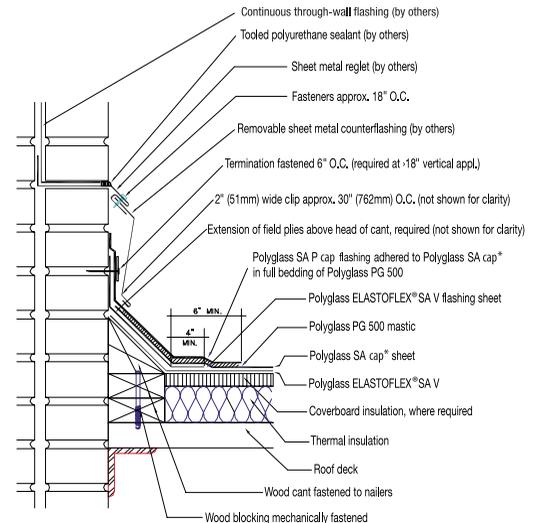


Notes:

1. Attach wood nailer and edge metal to wall/deck in accordance with ANSI/SPRI ES-1.
2. Wood blocking may be slotted for venting of wet-fill decks or other applicable constructions.
3. This detail should be used only where the deck is supported by the outside wall.
4. Refer to SMACNA recommendations and details regarding metal thickness and cleat requirements.
5. Membrane end laps must be 6" minimum and fully adhered to all membrane in all locations where FASTLap® is not present.

*Continuous cleat is recommended to be at least one gauge heavier than edge flashing metal.

SA BASE FLASHING DETAIL

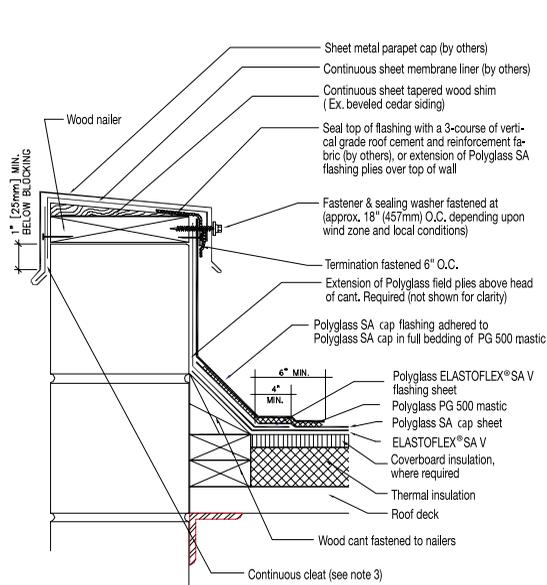


* Polyglass SA membranes are available in APP and SBS formulations for both base and cap sheets.

Notes:

1. Acceptable masonry, metal and wood substrates must be primed with Polyglass PG 100 or WB 3000 primer prior to application of **ADESO** self-adhered membranes.
2. Flashing plies installed over granular field sheet must be set in full bedding of PolyPlus 50 or Polyglass PG 500 mastic to assure a watertight seal over the granules or heat welded.
3. All wood blocking is to be attached per ANSI/SPRI ES-1 recommendations.
4. Thermal insulation must be of suitable type and density to accept **ADESO** self-adhered membranes.
5. Metal flashing (by others) to be fabricated and installed following NRCA, SMACNA and ANSI/SPRI guidelines and recommendations.

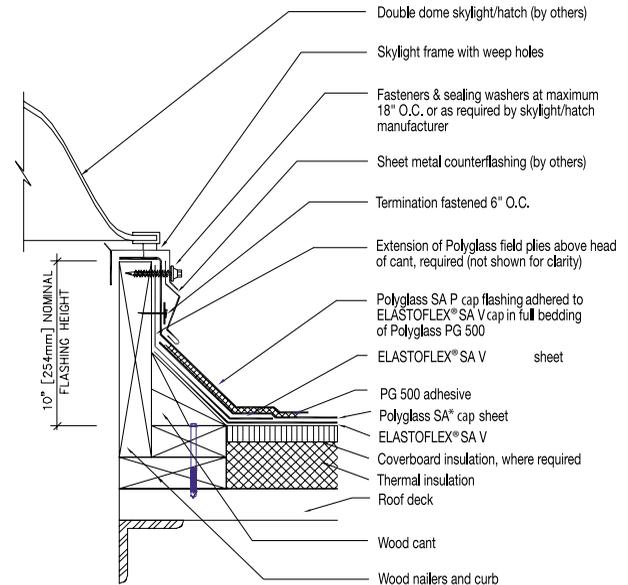
SA PARAPET CAP DETAIL



Notes:

1. Acceptable masonry, metal and wood substrates must be primed with Polyglass PG 100 or WB 3000 primer prior to application of **ADESO** self-adhered membranes.
2. Flashing plies installed over granular field sheet must be set in full bedding of PolyPlus 50 or Polyglass PG 500 mastic to assure a watertight seal over the granules.
3. All wood blocking is to be attached per ANSI/SPRI ES-1 recommendations.
4. Thermal insulation must be of suitable type and density to accept ADESO self-adhered membranes.
5. Metal flashing (by others) to be fabricated and installed following NRCA, SMACNA and ANSI/SPRI guidelines and recommendations.

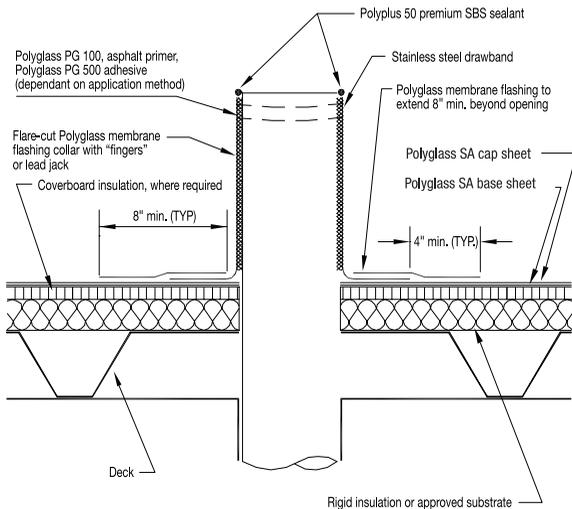
SA SKYLIGHT, SCUTTLE & CURB, DETAIL



Notes:

1. Acceptable masonry, metal and wood substrates must be primed with Polyglass PG 100 or WB 3000 primer prior to application of **ADESO** self-adhered membranes.
2. Flashing plies installed over granular field sheet must be heat seamed or set in full bedding of PolyPlus 50 or Polyglass PG 500 adhesive to assure a watertight seal over the granules.
3. All wood blocking is to be attached per ANSI/SPRI ES-1 recommendations.
4. Thermal insulation must be of suitable type and density to accept **ADESO** self-adhered membranes.
5. Metal flashing (by others) to be fabricated and installed following NRCA, SMACNA and ANSI/SPRI guidelines and recommendations.

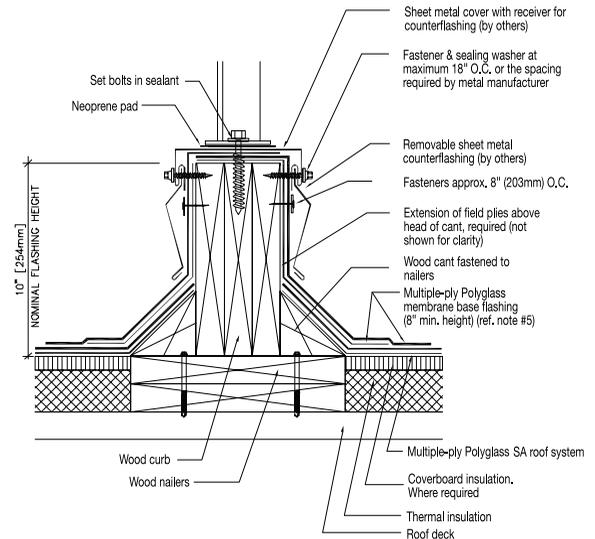
SA VENT PIPE FLASHING DETAIL



Notes:

1. Details are carried out by using a hot-air welding technique or Polyglass PG 500 Trowel Grade Adhesive, in combination with the **ADESO** self-adhered membranes.

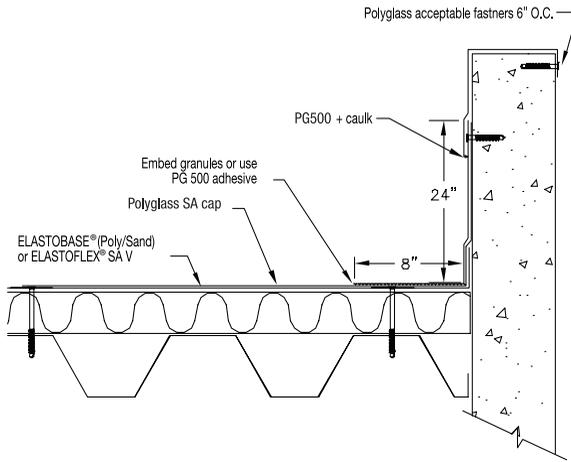
SA LIGHT/MEDIUM WEIGHT EQUIPMENT CURB DETAIL



Notes:

1. Attach wood nailer to wall/deck in accordance with FMRC guidelines, as per section 1-28, regarding wind loads to roof systems and deck securement.
2. Wood blocking may be slotted for venting of wet-fill decks or other applicable constructions.
3. This detail should be used only where the deck is supported by outside wall.
4. Refer to SMACNA recommendations and details regarding metal thickness and cleat requirements.
5. Membrane end laps must be 6" minimum and fully adhered to all membrane in all locations where FASTLap® is not present.

SA CAP SHEET VERTICAL WALL DETAIL



Notes:

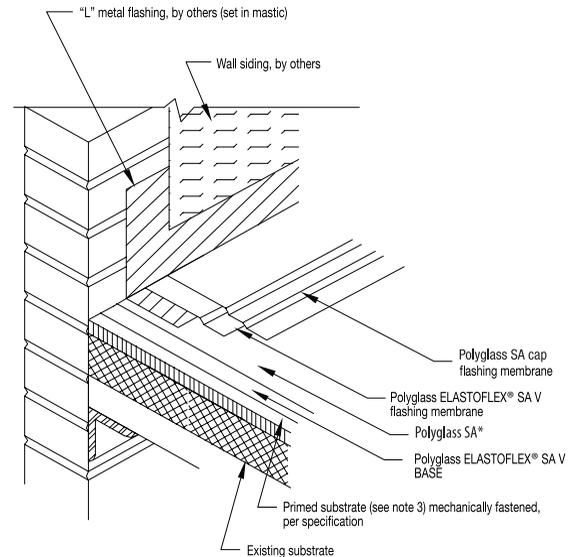
1. Intermittent fastening is to be at 6" O.C.
2. Maximum wall height without intermittent fastening is 24" unless accepted in writing by Polyglass Technical Services, prior to application.
3. All areas where salvage edge is not present shall have granules embedded by utilizing heat, prior to overlapping.

An alternative application is to use PolyPlus 35 cold adhesive.

SA BASE FLASHING PARAPET WALL - 2PLY DETAIL

Notes:

Flashing membranes to be set in bed of PG 500 or approved equal, modified asphalt adhesive (trowel grade)

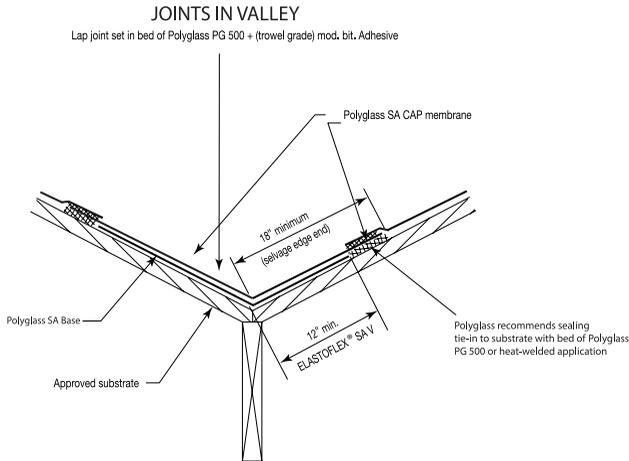


* Polyglass SA membranes are available in APP and SBS formulations for both base and cap sheets.

Notes:

1. Refer to SMACNA recommendations and details regarding metal thickness and cleat requirements.
2. Membrane end laps must be 6" minimum and fully adhered to all membrane in all locations where FASTLap® is not present.
3. Polyglass requires all metal surfaces to be cleaned and primed with Polyglass PG 100 asphalt primer or an ASTM D41 equal or WB 3000 Water-Based Primer.

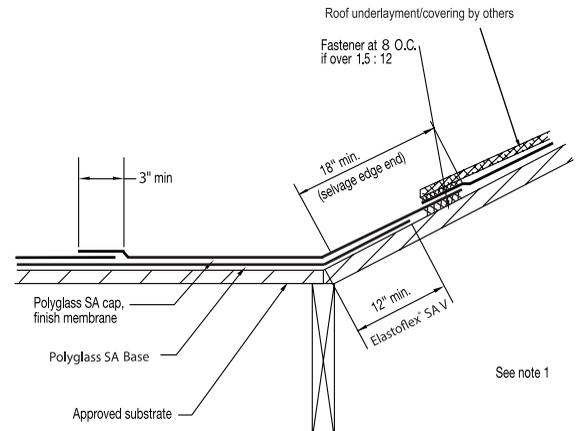
SA VALLEY FLASHING DETAIL



Notes:

1. Valley to be lined with Elastoflex SA base sheet and **ADESO** SA cap sheets to run parallel through the valley.
2. All laps in valley or other laps of which occur over granulated materials, are to be set in bed of Polyglass PG 500 or approved trowel grade, modified asphalt adhesive.
3. Valleys can be lined using the Polyglass membrane roll or metal flashing by others, consult Polyglass Technical Services at (866) 802-8017 for such applications.

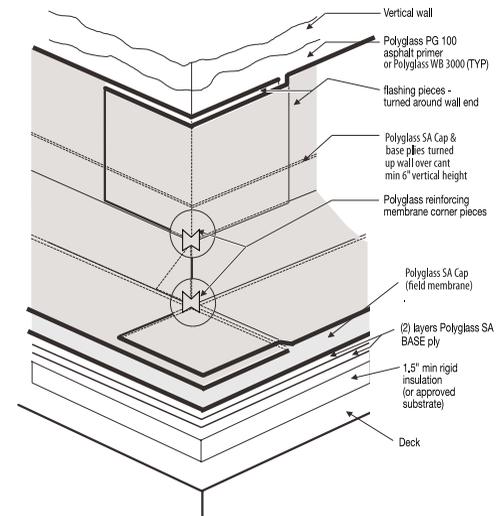
SA TIE IN JOINT FLASHING DETAIL



Notes:

1. **ADESO** Polyflex® SA P or Elastoflex® SA P membrane to tie-in under steep-slope roofing system. Polyglass recommends sealing tie-in to substrate with bed of Polyglass PG 500 or heat-welded application.

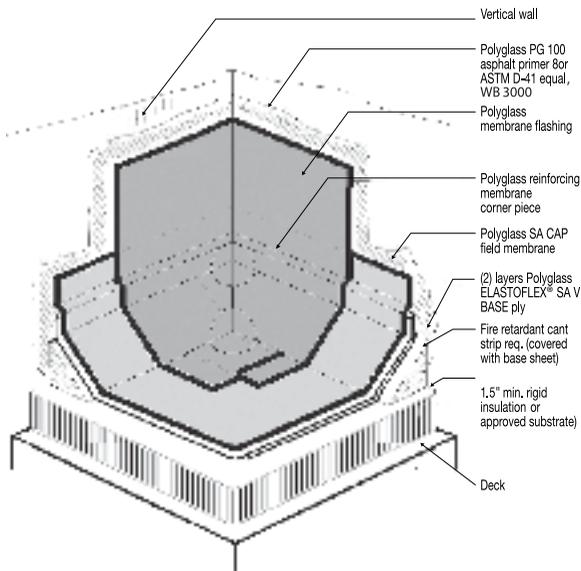
SA OUTSIDE CORNER FLASHING DETAIL



Notes:

1. Membrane end laps must be a minimum 6" and fully adhered at all membrane to membrane seams, and 3" minimum where overlapped and adhered to a primed metal surface.

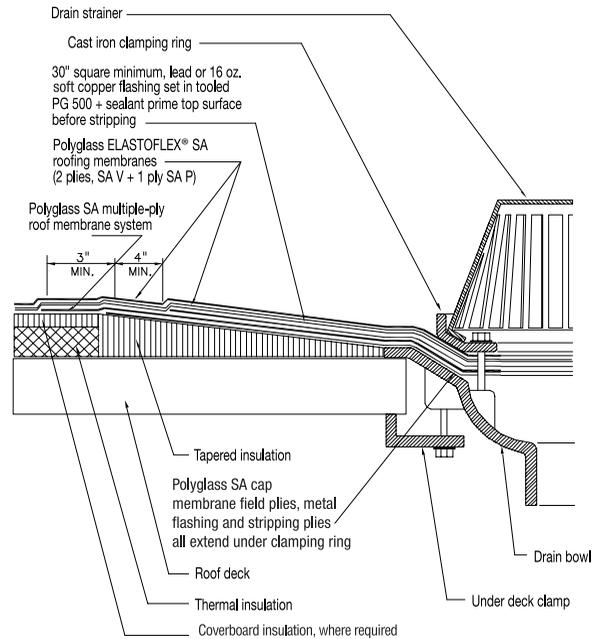
SA INSIDE CORNER FLASHING DETAIL



Notes:

1. Membrane end laps must be a minimum 6" and fully adhered at all membrane to membrane seams and a minimum 3" where overlapped and adhered to primed metal surface.

SA ROOF DRAIN DETAIL - ALTERNATE

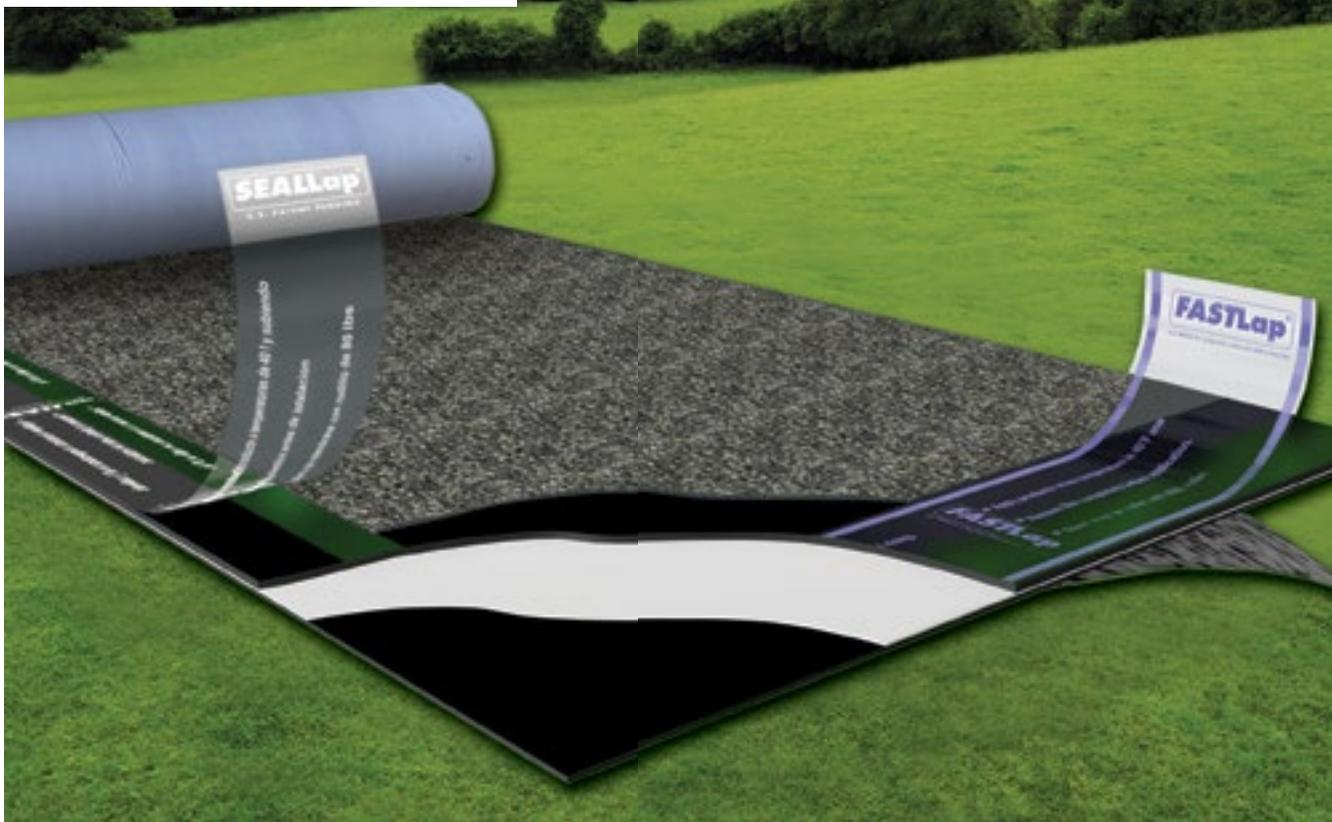


Notes:

1. Attached wood nailer to wall/deck in accordance with ANSI/SPRI ES-1.
2. Wood blocking may be slotted for venting of wet-fill decks or other applicable constructions.
3. This detail should be used only where the deck is supported by the outside wall.
4. Refer to SMACNA recommendations and detail regarding metal thickness and cleat requirements.
5. Membrane end laps must be 6" minimum and fully adhered to all membrane in all locations where FASTLap® is not present.

Stickitivity

/stikə 'tivitē/



noun

1. To stick with tools and products for best results
2. To have staying power
- 3. Polyglass ADESO® self-adhered roof membranes**

Innovative Technology Engineered to Perform

Revolutionary Self-Adhered Dual Compound APP or SBS Roof Membranes provide superior protection for low-slope installations with a long-lasting weathering surface, reinforced compound and an aggressive self-adhered bottom layer.



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