

Installation Guide **for Self-Adhered Membranes**



WATERPROOFING MATERIALS AND INSULATING SYSTEMS

POLYGLASS / Q

 **MAPEI**
GROUP

Adds value!

The new generation of **ADESO** self-adhered membranes is the most innovative modified bitumen roofing product available in the industry.

ADESO self-adhered membranes are unique with years of proven performance in the field as experienced by contractors, buildings owners, architects and roofing professionals, placing Polyglass ahead of the competition.

ADESO self-adhered membranes comprise the latest in asphalt adhesive technology as well as substantial, proven waterproofing compounds available with different surfaces. Installed properly, **ADESO** products will provide long lasting and durable roof coverings.



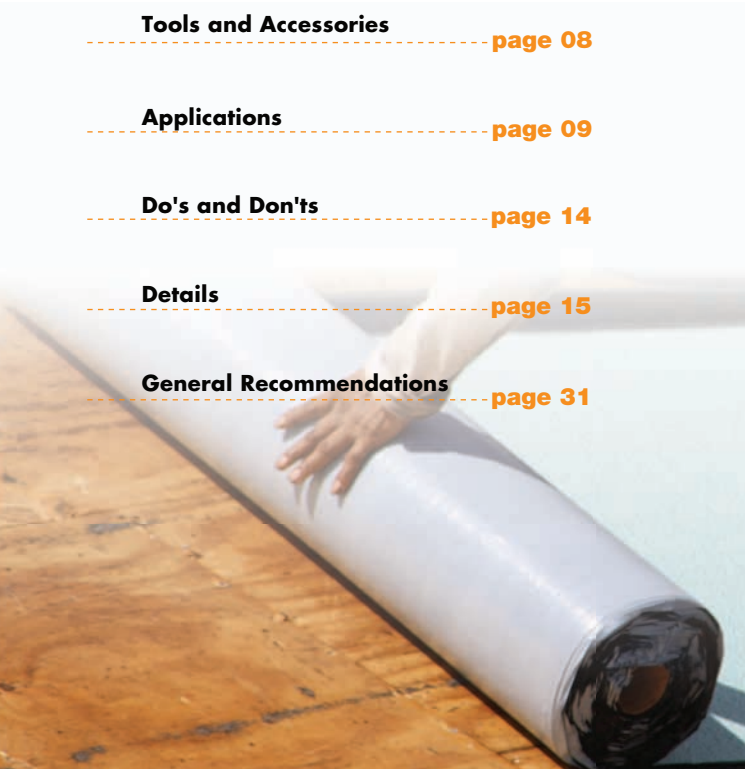
This revolutionary method of manufacturing **ADESO** self-adhered membranes utilizing Polyglass' patented dual compound technology, makes Polyglass the industry leader in self-adhered modified bitumen membranes for the **residential** and **commercial** roofing markets.



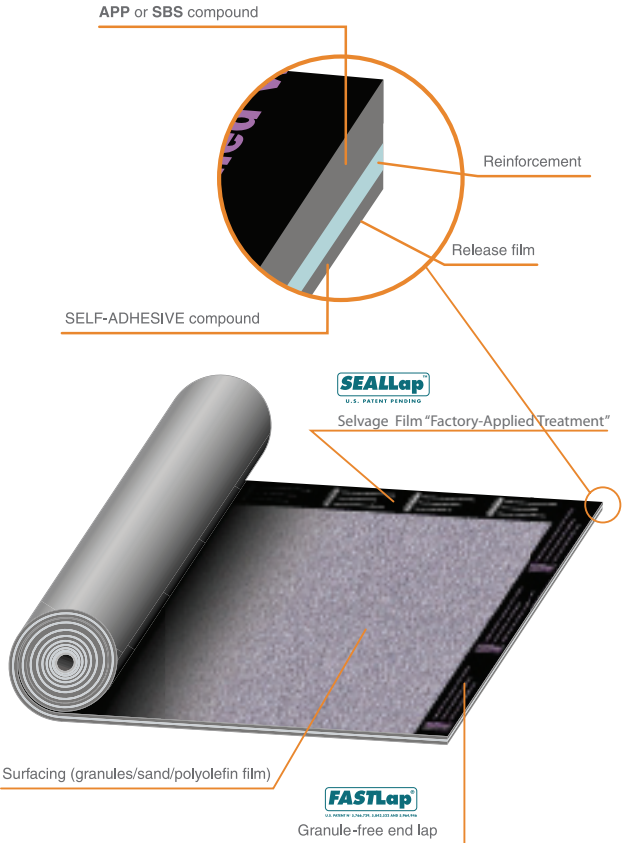
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As a manufacturer of **ADESO** self-adhered membrane. Polyglass offers a wide range of **ADESO** self-adhered membranes which are modified using true APP or SBS polymers on the top weathering surface, built with a reinforced polyester and/or reinforced fiberglass mat, and an aggressive self-adhesive formulation on the bottom surface.



FEATURES

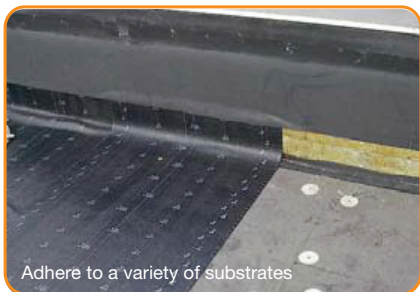
- A true APP or SBS compound on the top
- Different finished surfaces (granules, reflective film or polyolefin film with lay lines printed)
- High performance reinforced polyester or reinforced fiberglass mat
- Self-adhering compound on the bottom
- Split release film on the bottom surface
- Granule-free end lap with patented FASTLap
- Quick & clean side lap application with patented SEALLap technology

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ADVANTAGES

- Safe
- Easy to use
- Quick end lap application with patented FASTLap
- Quick & clean side lap with patented SEALLap
- Adhere to a variety of substrates
- Odorless
- Install with hand tools
- No open flames



Adhere to a variety of substrates

SPECIAL FEATURES

- Easy on your roofing projects, easy on you, Polyglass **EASYBOX**®. Packaging is designed to open easily on the roof.





- EASYBOX is precut on one side of the box.
- Easy removal of roll from side of the box – no more strain from lifting the roll out of the box.



- Easy folding process – the box is already flat – no more work wasted breaking down boxes.
- Easy stacking of flat boxes creates simple disposal – an end to scattered boxes littering your jobsite.

FASTLap Enhanced End Laps

The sealing of the end lap between two rolls of granular modified bitumen membranes has long been an arduous and troublesome operation. If granules are not heated and embedded satisfactorily, a reliable and durable seam may not be achieved. If the granular areas are overheated, the reinforcement may warp, be damaged or loss of modified adhesive may occur.



SEALLap
U.S. PATENT PENDING

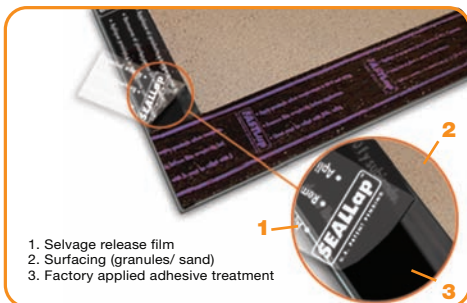


FASTLap
U.S. PATENT PENDING

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FASTLap means increased productivity

FASTLap provides a patented granule-free roll end feature. The release film is clean and simple to remove. Minimizing the effort and time required to achieve a perfect end seam.



SEALLap quick waterproofing of side laps

This is a unique patent-pending, factory-applied treatment on the side lap of rolls to enhance sealability.

Advantages: Instant and Permanent bond between adjacent membranes, even under low temperature conditions. Cost Savings. No need for use of external caulk or mastics to ensure lap bond. Labor Savings. Factory applied adhesive on the selvage areas translates to less time to install roofing membrane. Environmentally friendly. No need for external mastics or heat, as required by competitors' membranes.

ACCEPTABLE SUBSTRATES

Acceptable substrates for **ADESO** self-adhered applications:

- Polyisocyanurate
- GP Densdeck Prime (pre-primed board must still be primed)
DuraGuard® USG SecureRock®
- Asphalt impregnated, six-sided Woodfiber Board
- Primed Concrete
- New Plywood Decking or Primed Existing Plywood
- Joints must be taped (When in doubt, prime)
- Polyglass Elastobase® Poly/Sand – Base sheet, mechanically attached, heat welded or set in hot asphalt
- Polyglass Elastoflex® SA V Base – Base sheet

Notes:

Polyglass recommends the use of Polyglass PG 500 mastic and Polyglass PG 100 Asphalt Primer.

Contact Polyglass Technical Services for suitability of other equal items at (866) 802-8017.

APPLICATION INSTRUCTIONS



Tools

1. Trowel
2. Caulking Gun
3. Metal Head Hand Roller
4. Tape Measure
5. Utility Knives- Hook Blade, Straight Blade
6. Claw Hammer
7. Tin Snips
8. Hand Held Hot Air Welder
9. Silicone Hand Held Roller



Accessories

1. Polyglass PG 500 TROWEL Grade Mod-Bit Adhesive – 10.3 oz cartridge
2. Polyglass PG 500 TROWEL Grade Mod-Bit Adhesive – 4.75 gal. Pail
3. Polyglass PG100 ASPHALT PRIMER – 14 oz spray Can
4. 80 lb (minimum) linoleum roller

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1. Application

- A.** Remove existing materials and obsolete penetrations down to an acceptable substrate, repair any voids or imperfections in the substrate.
- B.** For steep-slope underlayments, cut the 2-square rolls into a minimum of 3 equal sections.
- C.** Unroll and allow membrane to relax in the sun for a recommended 15 minutes prior to installation in final location.



2. Application

- A.** Measure leading edge for width of first sheet and snap straight chalk line.
- B.** Lay the material flat in place, starting at the lowest point.
- C.** Align the membrane with chalk line at the lowest edge of the roof.
- D.** Install in shingle fashion from lowest point to highest point on roof.



3. Application

- A.** Fold the aligned membrane in half, exposing the dual release film.
- B.** Peel release film at a 90 degree angle in a constant motion ensuring to keep weight on the outer edges, as you progress. Position the next sheet by overlapping seams and line up the overlap of the top sheet edge with the inside of the bottom sheet's factory selvage SEALLap edges. Overlap and cut end laps minimum 6".
- C.** This is only one example of an application technique; contractors may develop their own methods of application.



4. Application

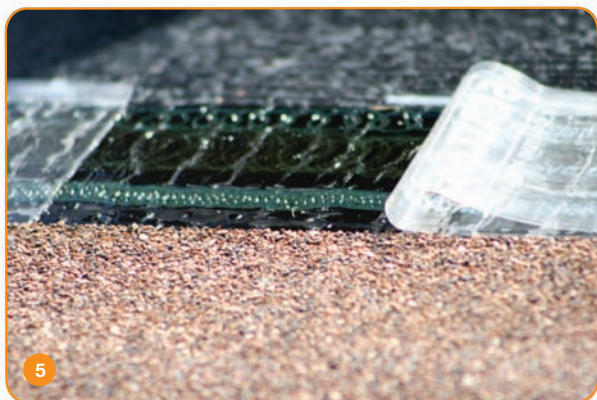
- A.** Press the membrane into place with firm, even pressure.



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5. Application

- A.** At seam overlaps, align next sheet of application, fold sheet back and remove split release film. Remove, from the installed roll, the protective tape, SEALLap and apply even pressure to the self sealing SEALLap area, while overlapping the next sheet.



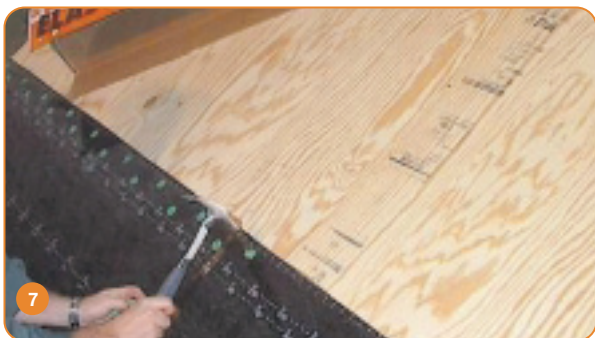
6. Application

- A.** Roll seams and edges firmly with a steel or other suitable roller to ensure full adhesion.



7. Application

- A.** Applications on a slope greater than 2-1/2" to 12" need to be back nailed in the seams overlap with ring shanked metal capped roofing nails, 6" o.c.



8. Application

- A.** After adhering rolls it is required that uniform pressure be applied to the entire sheet area by using an 80 lb (minimum) linoleum roller, water filled lawn roller or similar weighted roller in a method suitable to the roof slope. Care must be taken to prevent injury when rolling membrane, especially on sloped surfaces.



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9. Application

- A.** Details are carried out by using a hot-air welding mastic technique or Polyglass PG 500 SBS TROWEL Grade.
- B.** Heat should be applied with a flameless torch or hot-air welder. Open flame torches are not recommended.



DO's

1. DO prime all concrete, masonry, metal or metallic surfaces
2. DO apply to clean, dry, dust free surfaces
3. DO remove split release film at a 90 degree angle
4. DO roll all seams SEALLap and FASTLap to ensure 100% adhesion
5. DO reinforce all in/out side corners
6. DO back nail head laps whenever roof pitch is over 2-1/2:12
7. DO roll membrane when finished
8. DO keep material cool in summer
9. DO keep material warm in winter
10. DO sandwich all metal flashing components

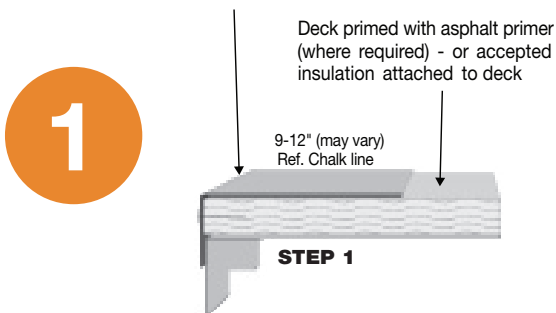
DON'Ts

1. DO NOT apply roofing membrane during inclement weather
2. DO NOT take ADESO roll out of box until ready to apply
3. DO NOT apply over shingles or similar roof coverings
4. DO NOT store in direct sunlight
5. DO NOT apply to a dirty, wet, dusty substrate
6. DO NOT leave out of the box overnight. Stage only a few rolls in advance and use all rolls removed from packaging on the same day.
7. DO NOT apply in cold or wet weather or when moisture is on deck (material substrate and ambient temperature should be at least 40 degrees F (5 degrees C) and rising)
8. DO NOT forget to angle at 45 degrees on buried laps
9. DO NOT forget to lap 6" on granular to granular overlaps

TYPICAL ROOF EDGE DETAIL

ELASTOFLEX SA V starter strip cut to reqd. width, adhered to deck. Insure the polyolefin "top film" is clean and dust free in order to achieve the best adhesion of the following plies.

Note: For 2 or more ply systems see Step 2.

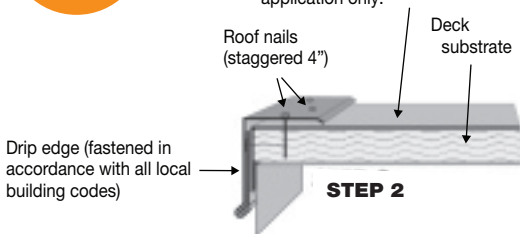


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2

ELASTOFLEX SA V Base

adhered to deck and over nailer, below edge metal. This is an alternative for 2 ply (or more) systems. The starter strip method shown in Step 1 is for one-ply application only.

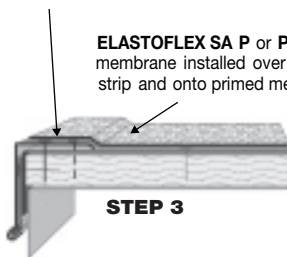


ELASTOFLEX SA V

Strip-in 9" wide minimum, stop 1/2" from outside edge of metal

3

ELASTOFLEX SA P or POLYFLEX SA P membrane installed over SA V Base strip and onto primed metal.



Notes:

- A.** Factory endlaps are provided with Polyglass proprietary FASTLap feature. These laps can be sealed in the usual way. At "BONDING AREAS" where a seam MUST be made to the granular surface, the following alternatives are acceptable:

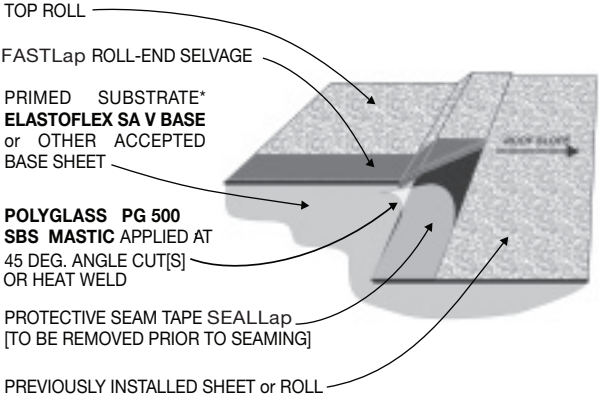
Alternatives at Bonding area:

1. Granular area heated to further embed granules into SBS or APP compound before installing subsequent flashing piece
2. Heat weld subsequent flashing seams with hot-air gun or mini-torch
3. Granular endlaps must be a 6" Minimum & FULLY ADHERED. This can be achieved by carefully applying POLYPLUS 35 + SBS MODIFIED TROWEL ADHESIVE in the 6" overlap area before joining the seam surfaces

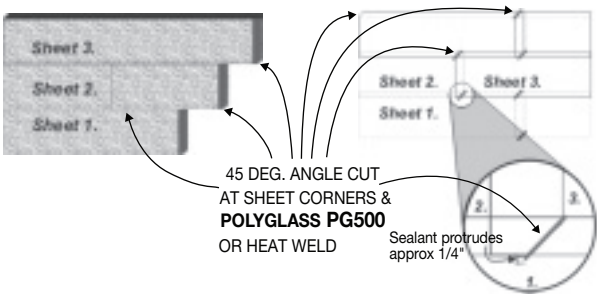
To prevent unsightly surplus adhesive on the visible area, mask the endlap temporarily with the tape and remove when the adhesive is dry.

- B.** Ensure adhesion is achieved at all metal surfaces by priming with D41 Asphalt Roof Primer and providing a 3" min. overlap.

SEAMING DETAIL FOR ELASTOFLEX SA P or POLYFLEX SA P



SEAM INTERSECTION TREATMENT - FIELD



Sequence:

- A.** Sheet 1 is applied to substrate.
- B.** Triangle piece of approx. 45° are 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 & applied to the substrate.
- D.** A bead of 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.

Note:

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

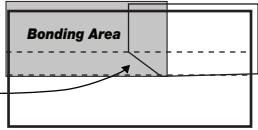
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SEAM INTERSECTION TREATMENT – FLASHINGS

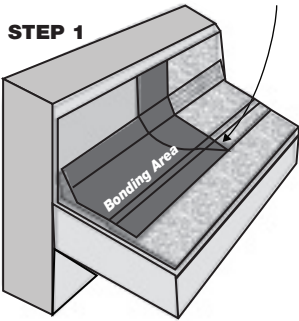
1

45° ANGLE CUT
AT SHEET CORNERS &
POLYGLASS PG 500
OR HEAR WELD

PLAN VIEW OF Step 1.



STEP 1



2

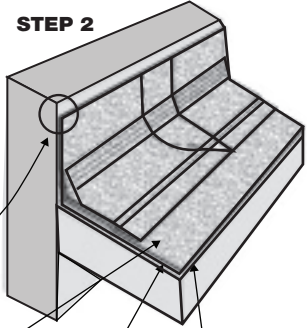
STEP 2

Provide POLYGLASS
approved detail ter-
mination, as required
by specification for
wall treatment

ELASTOFLEX SA P
field membrane

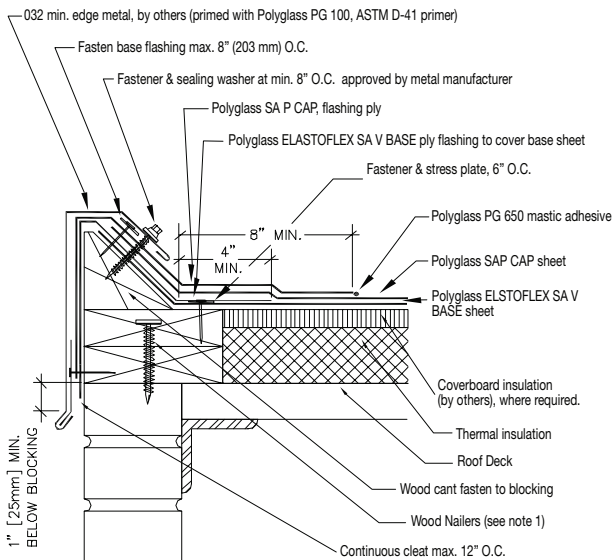
ELASTOFLEX SA V
base sheet

Approved substrate



Refer To Notes On Page 15

PGSA01_ADESO® SA RAISED EDGE METAL DETAIL

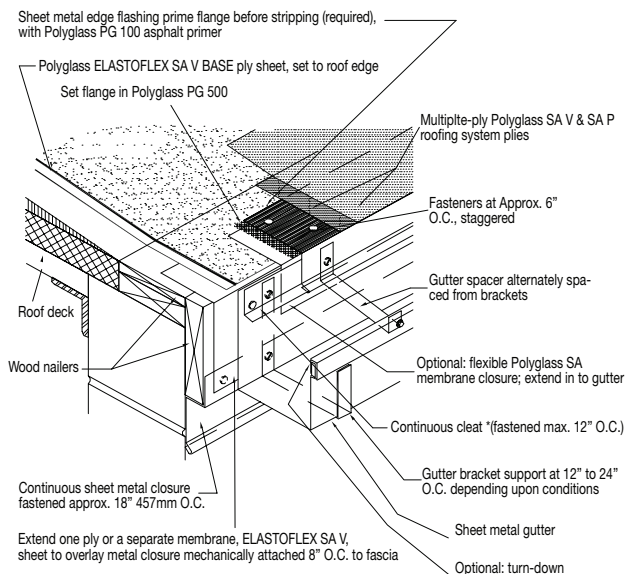


Notes:

1. Attach wood nailer and edge metal to wall/deck in accordance with ANSI/SPRI ES-1.
2. Refer to SMACNA recommendations & details regarding metal thickness & cleat requirements.
3. Membrane endlaps must be 6" minimum & 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.
5. Thermal insulation must be of suitable type & 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.

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PGSA02_ADESO® SA EDGE AND GUTTER DETAIL

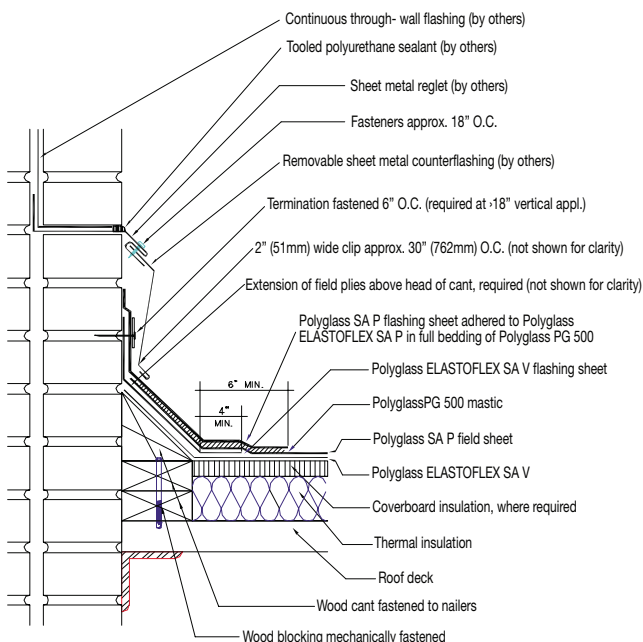


Notes:

1. Attach wood nailer to wall/deck in accordance with ANSI/SPR1 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 & details regarding metal thickness & cleat requirements.
5. Membrane endlaps must be 6" minimum & 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.

PGSA03_ ADESO® SA BASE FLASHING DETAIL

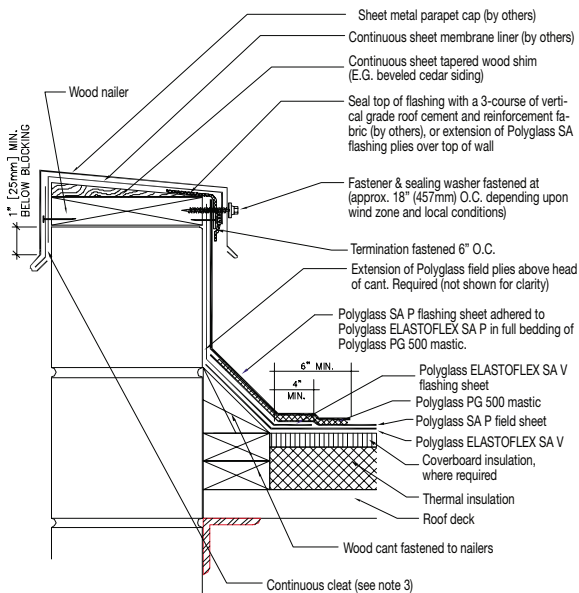


Notes:

1. Acceptable masonry, metal & wood substrates must be primed with Polyglass PG 100 asphalt primer prior to application of **ADESO** self-adhered membranes.
2. Flashing plies installed over granular field sheet must be set in full bedding of 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 & density to accept **ADESO** self-adhered membranes.
5. Metal flashing (by others) to be fabricated and installed following NRCA & SMACNA guidelines and recommendations.

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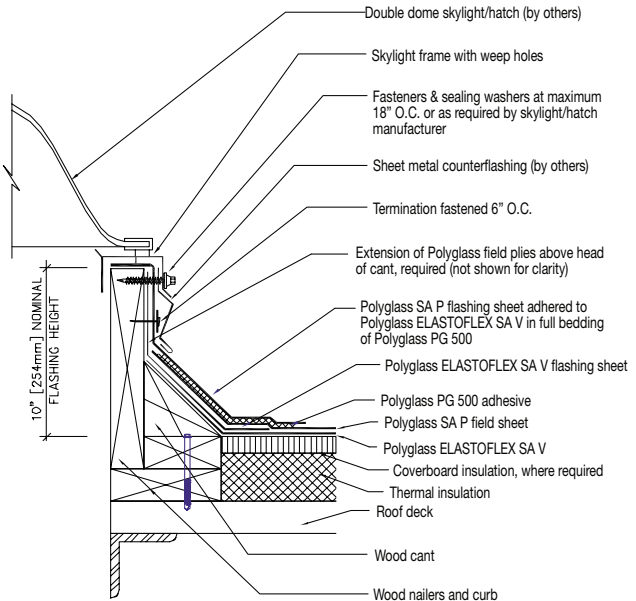
PGSA04_ADESO® SA PARAPET CAP DETAIL



Notes:

1. Acceptable masonry, metal & wood substrates must be primed with Polyglass PG 100 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 Polyglass PG 500 mastic to assure a watertight seal over the granules.
3. All wood blocking to be attached per ANSI/SPRI ES-1 recommendations.
4. Thermal insulation must be of suitable type & density to accept **ADESO** self-adhered membranes.
5. Metal flashing (by others) to be fabricated and installed following NRCA & SMACNA guidelines and recommendations.

PGSA05_ADESO® SA SKYLIGHT, SCUTTLE & CURB, DETAIL

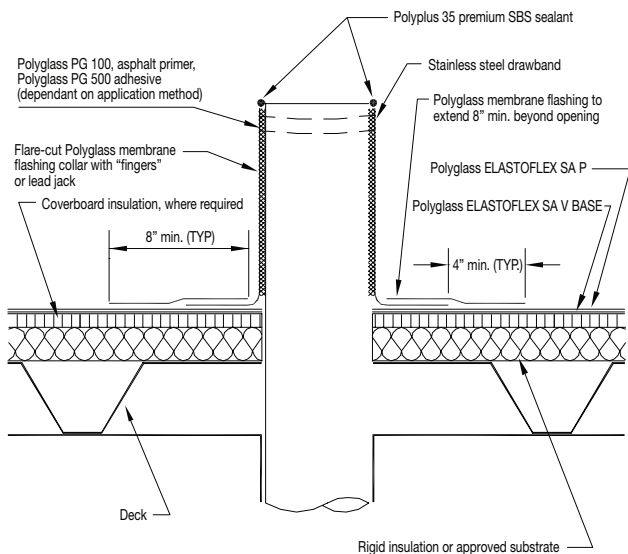


Notes:

1. Acceptable masonry, metal & wood substrates must be primed with Polyglass PG 100 asphalt 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 Polyglass PG 500 adhesive to assure a watertight seal over the granules.
3. All wood blocking to be attached per ANSI/SPRI ES-1 recommendations.
4. Thermal insulation must be of suitable type & density to accept **ADESO** self-adhered membranes.
5. Metal flashing (by others) to be fabricated and installed following NRCA & SMACNA guidelines and recommendations.

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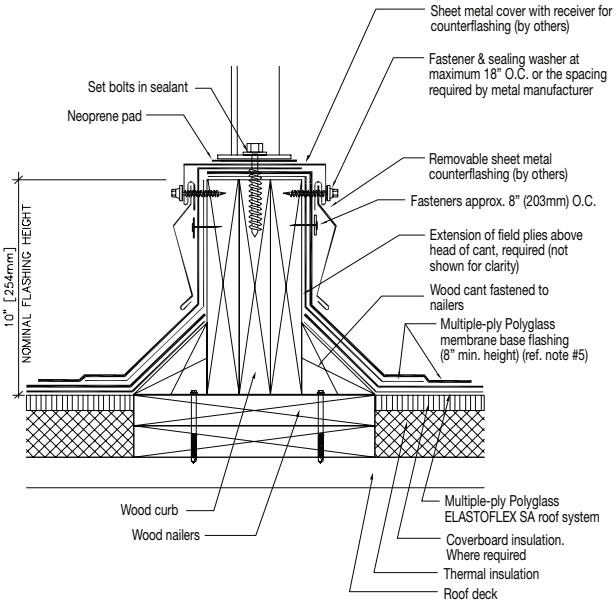
PGSA06_ADESO® SA VENT PIPE FLASHING DETAIL



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.

PGSA07_ADESO® SA LIGHT/MEDIUM WEIGHT EQUIPMENT CURB DETAIL

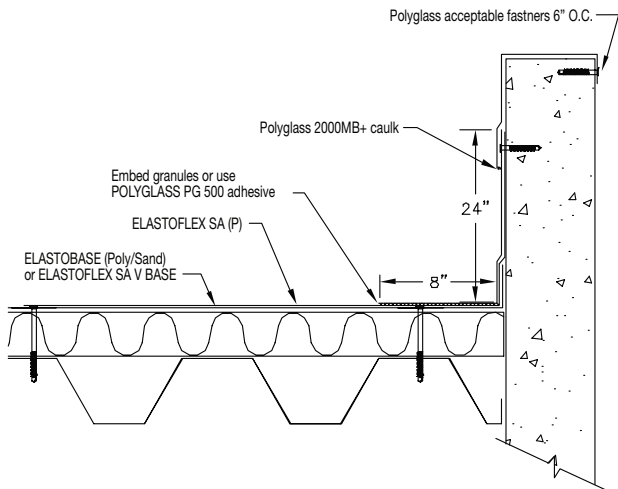


Notes:

1. Attach wood nailer to wall/ deck in accordance with FMRC guidelines, as per section 1-28, regarding windloads to roof systems & 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 & details regarding metal thickness & cleat requirements.
5. Membrane endlaps must be 6" minimum & fully adhered to all membrane in all locations where FASTLap is not present.

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PGSA09_ADESO® ELASTOFLEX SA & POLYFLEX SA VERTICAL WALL DETAIL



Notes:

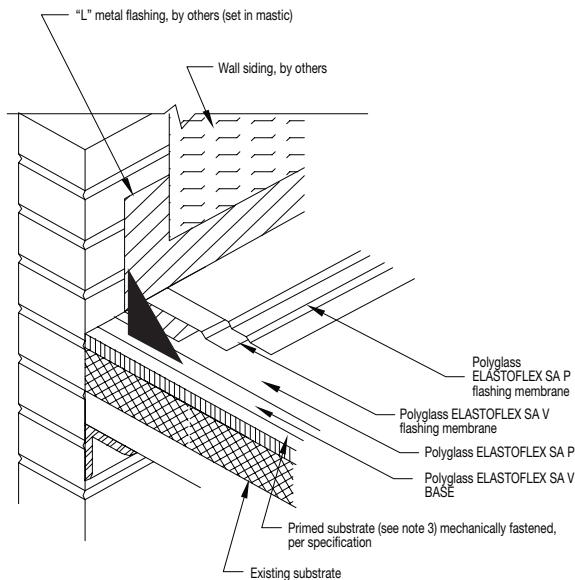
1. Intermittent fastening is to be at 6" O.C.
2. Maximum wall height without intermittent fastening is 24" unless accepted in writing by Polyglass Technical Services, prior to application.
3. All areas where salvage edge is not present shall have granules embedded by utilizing heat, prior to overlapping.

An alternative application is to use Polyglass POLYPLUS 35 cold adhesive.

PGSA15_ADESO® SA BASE FLASHING PARAPET WALL - 2PLY DETAIL

Notes:

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

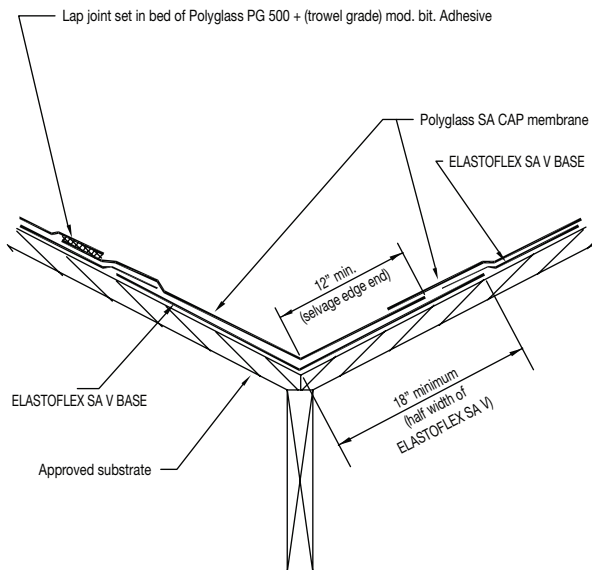


Notes:

1. Refer to SMACNA recommendations & details regarding metal thickness & cleat requirements.
2. Membrane endlaps must be 6" minimum & fully adhered to all membrane in all locations where FASTLap is not present.
3. Polyglass USA requires all metal surfaces to be cleaned and primed with Polyglass PG 100 asphalt primer or an ASTM #D-41 equal.

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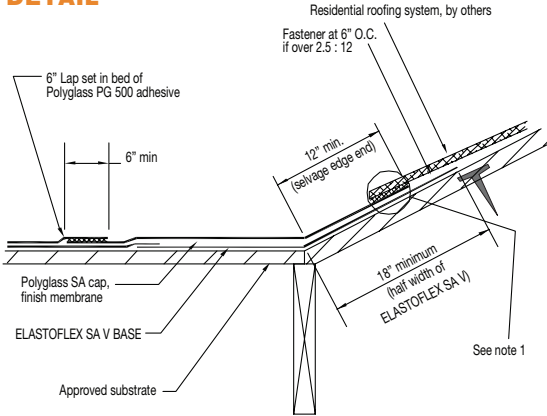
PGSA16_ADESO® SA CLOSED VALLEY FLASHING DETAIL



Notes:

1. Closed valley to be lined with ELASTOFLEX SA V BASE and an **ADESO** self-adhered CAP sheets to run parallel through the valley.
2. Finish membranes to overlay flashing membrane creating the closed valley, overlap joints, 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 header roll or metal flashing by others, consult Polyglass Technical Services at (866) 802-8017 for such applications.

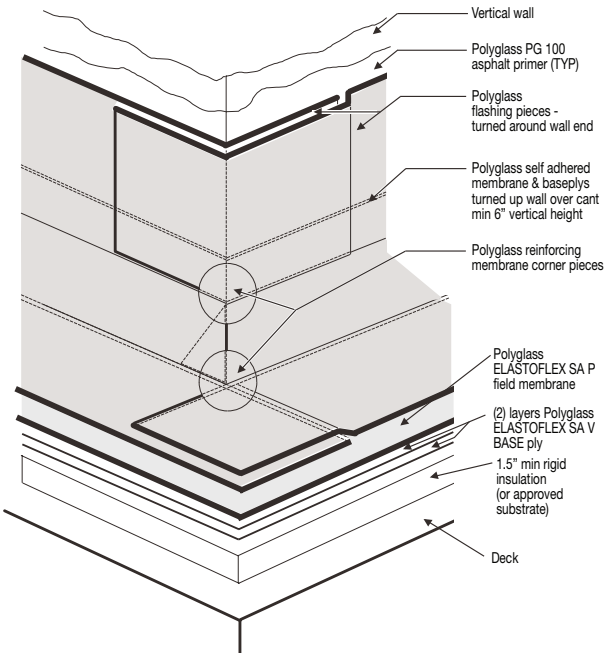
PGSA17_ADESO® SA TIE IN JOINT FLASHING DETAIL



Notes:

- ADESO** Polyflex SAP or Elastoflex SAP membrane to tie in under residential roofing system, Polyglass recommends sealing tie in with bed of Polyglass PG 500 or approved trowel grade modified asphalt adhesive.

PGSA22_ADESO® SA OUTSIDE CORNER FLASHING DETAIL

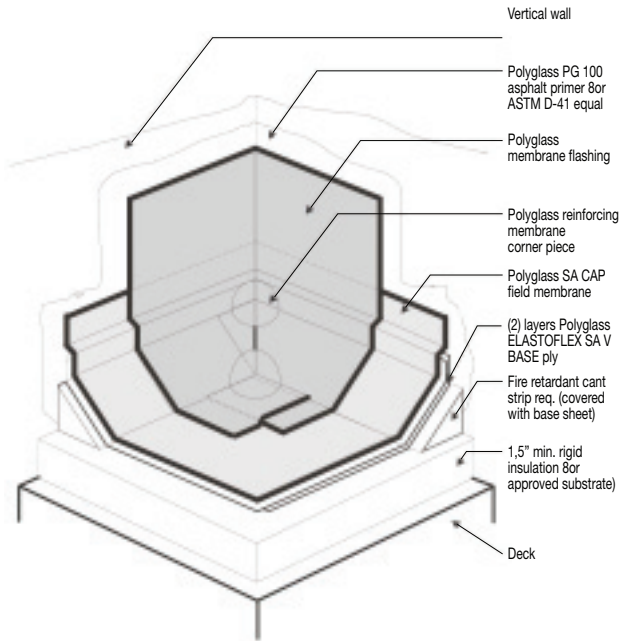


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Notes:

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

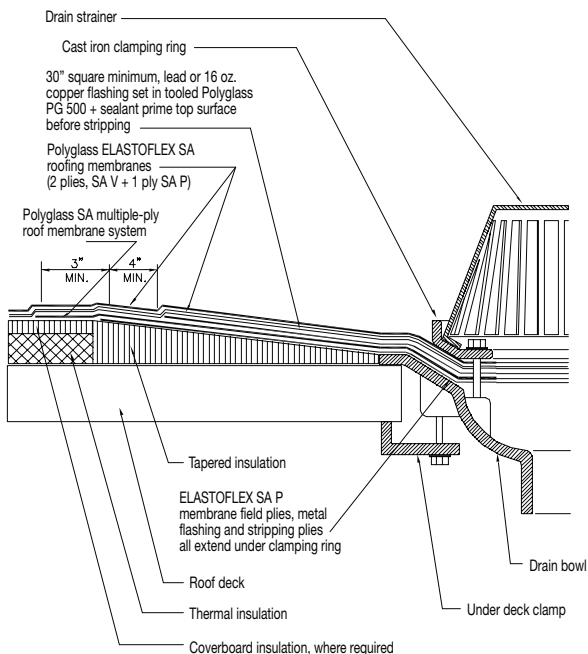
PGSA23_ADESO® SA INSIDE CORNER FLASHING DETAIL



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.

PGSA32_ADESO® SA ROOF DRAIN DETAIL – ALTERNATE



Notes:

1. Attach 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 & details regarding metal thickness & cleat requirements.
5. Membrane endlaps must be 6" minimum & fully adhered to all membrane in all locations where FASTLap is not present.

STORAGE

ADESO self-adhered membranes should be stored at room temperature whenever possible. Avoid storing out of the box for prolonged periods. Do not take the roll out of the box until it is ready for application. Do not store unpacked roll in direct sunlight and in bright sunshine or in hot weather. Removal of release film may cause static electricity discharge.

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SURFACE PREPARATION & PRECAUTIONS

ADESO self-adhered membranes are to be applied directly to approved insulations, Polyglass base sheets, and roof decks. Do not apply to shingles, shakes or other residential finished roof coverings.

1. Apply only when the weather is dry and all material interface temperatures (air, roof deck, membrane) are 40 degrees F (5 degrees C) and rising. Roofing installation shall not be conducted when water is in any form i.e. rain, dew, ice, frost, snow. Use of hot air gun or SBS cold adhesive, may be required under low temperature conditions.
2. All roof deck application areas shall have positive drainage, continuous support and structurally sound to support the live and dead load requirements of the roofing system and sufficiently rigid to support construction traffic.
3. Apply only over clean, dry and dust-free surfaces. For best results, wood, concrete, masonry, metal or metallic surfaces and acceptable smooth surface BUR and other acceptable substrates are to be primed with Polyglass PG 100 Asphalt Roof Primer prior to the application of the membrane. The primed substrate should be fully dry prior to installation.
4. Masonry or concrete supported by steel frame or other steel structure shall be provided with suitable expansion joint designs and detailed for movement.
5. Ensure that installation of any **ADESO** self-adhered product does not prevent or interfere with ventilation of existing construction.

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www.polyglass.com



Adds value!