Roofing Products International, Inc.

Fully Adhered System Application Handbook

ALL ADHESIVES, TAPES, AND FLASHING DETAILS

for

Royal Edge EPDM

Re-Flex EPDM & Re-Flex TPO

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GENERAL INFORMATION

This handbook has been designed to give the user a general description in the application of a ROOFING PRODUCTS INTER- NATIONAL, INC., Fully Adhered *RPI EPDM/TPO* Membrane roof. It is intended as a broad reference aid and not meant to be all inclusive.

Please refer to RPI's *Single Ply Roofing Systems* Specification Manual for additional information concerning other RPI Systems

RPI's Fully Adhered Royal Edge EPDM (black), Re-Flex EPDM (white), and Re-Flex TPO Membrane Systems share many installation similarities:

ADHESIVES:

All Fully Adhered systems can be installed using Royal Edge Bonding Adhesives.

Royal Edge EPDM: RPI Royal Edge Bonding Adhesive-Solvent Based and Water Based
Re-Flex TPO: RPI Royal Edge TPO Bonding Adhesive-Solvent Based
Re-Flex EPDM: RPI Royal Edge Bonding Adhesive-Solvent Based and Water Based
Note: In areas which restrict the use of VOC (volatile organic compounds) in adhesives, use RPI Royal Edge Low VOC Bonding Adhesive (solvent based) or Royal Edge Water-Based Adhesives.

SEAM TAPES:

All Fully Adhered systems can be installed using RPI Seam Tapes.

Royal Edge EPDM: RPI Royal Edge EPDM Seam Tape (black)
Re-Flex TPO: RPI Re-Flex Seam Tape (white)
Re-Flex EPDM: RPI Re-Flex Seam Tape (white)

SEAM TAPE PRIMER:

All Fully Adhered systems require a primer for Seam Tape and Tape backed products.

Royal Edge EPDM: Royal Edge Seam Tape Primer (EPDM)
Re-Flex TPO: Re-Flex Primer/Activator
Re-Flex EPDM: Re-Flex Primer/Activator
TPO Primer/Activator and Royal Edge EPDM Seam Tape Primer should be applied using an RPI Scrub Pad.
Note: In areas which restrict the use of VOC (volatile organic compounds) in adhesives, use RPI Royal Edge Low VOC Primer/Activator.

PIPE BOOTS:

All Fully Adhered systems use Pre-formed Multi-Sized Pipe Boots.

Royal Edge EPDM: Royal Edge EPDM Pipe Boot with Tape
Re-Flex TPO: Re-Flex TPO Pipe Boot with Tape
Re-Flex EPDM: Re-Flex EPDM Pipe Boot with Tape
(Re-Flex White EPDM Pipe Boots with Tape can also be installed on Re-Flex TPO)

LAP CAULK:

All Fully Adhered systems use RPI Royal Edge Lap Caulk.

Royal Edge EPDM: Royal Edge EPDM Lap Caulk (black)
Re-Flex TPO: Re-Flex Lap Caulk (white)
Re-Flex EPDM: Re-Flex Lap Caulk (white)

WATER CUT-OFF MASTIC:

All Fully Adhered systems use RPI Royal Edge Water Cut-Off Mastic.

RPI Royal Edge Water Cut-Off Mastic is installed using the same application methods in Royal Edge EPDM, Re-Flex TPO, and Re-Flex EPDM systems.

Uncured Flashings:

All Fully Adhered systems use RPI Royal Edge Uncured EPDM Flashing with Tape.

Royal Edge EPDM: Royal Edge Uncured EPDM (black) Flashing with Tape (black Seam Tape).
Re-Flex TPO: Re-Flex Uncured Flashing (white) with Tape (white)
Re-Flex EPDM: Re-Flex Uncured Flashing (white) with Tape (white)

Termination Bar:

All Fully Adhered systems use RPI Termination Bar.

RPI Termination Bar is installed using the same application methods in EPDM and TPO systems.

Pitch Pocket Sealer:

All Fully Adhered systems use RPI Pitch Pocket Sealer.
RPI Pitch Pocket Sealer is installed using the same application methods in EPDM and TPO systems.

NOTE: Always use the following Re-Flex TPO products when installing a Re-Flex Fully Adhered TPO System with Tapes.

Royal Edge TPO Bonding Adhesive (solvent based).

Re-Flex Uncured Flashing with Tape (white uncured EPDM with laminated Re-Flex Seam Tape).

Re-Flex Lap Caulk (white).

Re-Flex TPO Pipe Boot with Tape/Re-Flex EPDM Pipe Boot with Tape.

Re-Flex Primer/Activator. Apply Re-Flex Primer/Activator with a Royal Edge Scrub Pad.

USE ONLY RPI ROYAL EDGE TPO ADHESIVE AND RE-FLEX PRIMERS WITH RE-FLEX TPO PRODUCTS.

TOOLS AND EQUIPMENT

The following list is to be used as a reference only, as tools and equipment will vary from project to project.

- Steel or rubber hand roller (2")
- 3 or 4 inch paint brush
- 9" paint roller frame and cover with handle. Cover to be solvent compatible.
- 4" paint roller frame and cover with handle. Cover to be solvent compatible.
- Caulk guns
- Screw guns and a hammerdrill
- UL approved can for solvents
- Rubber gloves to handle solvents
- Stir stick for adhesives
- Scissors
- Sponge mop for seam and splice cleaning
- Tape measure
- Chalk line
- Insulation knife
- Stiff push broom
- Goggles and eye cleaning solution
- Lumber crayon
- Hacksaw and blades
- Tin snips
- Screw drivers (for banding)
- Hole punch
- Lawn or linoleum roller
- Scratch pad (for *Seam Tape Primer*)
- Sandpaper

All items throughout booklet in italics are supplied by RPI.

RPI EPDM/TPO PRODUCTS

ROYAL EDGE (BLACK) EPDM MEMBRANES, ADHESIVES, TAPES, ACCESSORIES

EPDM membrane (black)
.045, .060 thickness
7.5, 10, 20, 30, 40, 50 ft. widths
25, 50, 100 ft. lengths

Uncured Flashing without Tape (black)
(6") six inch, (12") twelve inch
wide rolls

Uncured Flashing with Tape (black)
(6") six inch, (12") twelve inch
wide rolls

Seam Tape (black)
(3") three, (4") four, (6")six inch
wide rolls
25' (ft.) 100' (ft.) lengths

Pipe Boot (black)
Pipe Boot with/without Tape
Pipe Boot comes with Stainless
Steel clamping band

Cured Cover Tape
(6") six inch, (9") nine inch, (12")
twelve inch wide rolls

Bonding Adhesive (solvent based) (yellow)
1-gallon pail
5-gallon pail

LOW VOC PRODUCTS

Bonding Adhesive (solvent based) (yellow)
5-gallon pail

Water Based Bonding Adhesive (white)
1-gallon container
5-gallon pail

Membrane Cleaner (clear)
1-gallon can

Seam Tape Primer (Translucent)
1-gallon pail

Steel / Hypalon Detail Hand Rollers
(2") inch Steel Hand Roller
(2") inch Hypalon Hand Roller
Inside Corner Roller

Lap Caulk (black)
10.1 oz. tubes

Water Cut-Off Mastic (grey)
10.1 oz. tubes

Splice Adhesive (black)
1-gallon pail
5-gallon pail

Seam Tape Primer (black)
1-gallon pail
5-gallon pail

Membrane Cleaner (clear)
1-gallon can
5-gallon pail

Scrub Pads

Aluminum Termination Bars
(5') five ft. (10') ten ft. bars

Steel / Hypalon Detail Hand Rollers
(2") inch Steel Hand Roller
(2") inch Hypalon Hand Roller
Inside Corner Roller

Adhesive Rollers / Roller Covers
(4") four inch Rollers
(4") four inch Roller Covers
(9") nine inch Rollers
(9") nine inch Solvent Roller Covers

Insulation Fasteners (Screws and Plates)
Deck Screws 1 5/8" thru 6" screws
Deck Plates 3" round metal plates

RPI EPDM/TPO PRODUCTS

RPI RE-FLEX (WHITE) EPDM MEMBRANES, ADHESIVES, TAPES, ACCESSORIES

ALL RPI RE-FLEX EPDM AND TPO PRODUCTS ARE DESIGNED TO BE INSTALLED AS PART OF A HIGHLY REFLECTIVE, ENVIRONMENTALY FRIENDLY, SINGLE-PLY MEMBRANE SYSTEM

Re-Flex EPDM membrane (white)
- .060 thickness
- 10, 20 ft. widths
- 50, 100 ft. lengths

Re-Flex Seam Tape (white)
- 4" (inch) wide rolls
- 50' (ft.), 100' (ft.) long rolls

Re-Flex Uncured Flashing with Tape (white epdm)
- 12" (inch) wide rolls
- 25' (ft.) rolls

Re-Flex Lap Caulk (white)
- 10.1 oz. tubes

Re-Flex Primer / Activator
- 1-gallon pail

Re-Flex EPDM Pipe Boot
- Multi-sized white EPDM Pipe Boot
- With/without Tape

Re-Flex EPDM Cover Tape (white)
- 6"(inch) wide rolls Re-Flex
- 50' (ft.) roll

RPI RE-FLEX TPO MEMBRANES, ADHESIVES, TAPES, ACCESSORIES

Re-Flex TPO membrane
- .045 TPO Membrane
- .060 TPO Membrane
- 8' (ft.), 10' (ft.) widths
- 50' (ft.), 100' (ft.) lengths

Re-Flex Uncured EPDM Flashing
- 12" (inch) by 25' (ft.) roll

Re-Flex TPO Pipe Boot (white)
- multi-sized Pipe Boot
- with/without Tape
- comes with Stainless Steel pipe clamp

Royal Edge TPO Bonding Adhesive (solvent based)
- 5-gallon pail
- Low VOC Available

Re-Flex Primer / Activator (solvent based)
- 1-gallon pail
- Low VOC Available

Re-Flex Lap Caulk (white)
- 10.1 oz. tubes

Re-Flex Cut Edge Sealant (clear)
- 1 pint squeeze bottle

THE FOLLOWING PRODUCTS ARE USED IN MULTIPLE SYSTEMS

ROYAL EDGE BONDING ADHESIVE

Acceptable for use with Royal Edge EPDM and Re-Flex EPDM Systems.

ROYAL EDGE LOW VOC BONDING ADHESIVE

Acceptable for use with Royal Edge EPDM, Re-Flex EPDM, and Re-Flex TPO Systems.

ROYAL EDGE TPO BONDING ADHESIVE

Acceptable for use with Royal Edge EPDM, Re-Flex EPDM, and Re-Flex TPO Systems.

RE-FLEX SEAM TAPE, TAPE BACKED FLASHINGS, and RE-FLEX PRIMER / ACTIVATOR

Acceptable for use with Re-Flex TPO and Re-Flex EPDM Systems.

RE-FLEX LAP CAULK

Acceptable for use with Re-Flex TPO and Re-Flex EPDM Systems.

RE-FLEX UNCURED EPDM FLASHING WITH TAPE

Acceptable for use with Re-Flex TPO and Re-Flex EPDM Systems

INSTALLATION OF INSULATION

NOTE: INSTALLATION OF INSULATION IS THE SAME FOR ROYAL EDGE EPDM, RE-FLEX EPDM, AND RE-FLEX TPO FULLY ADHERED MEMBRANE SYSTEMS.

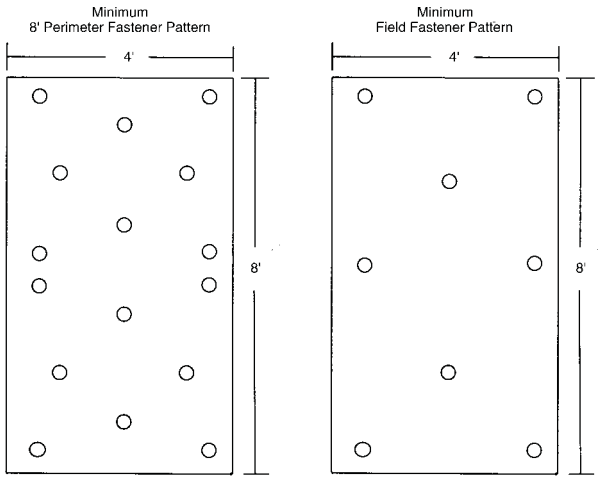
Use any type of insulation that is compatible with the adhesives. Plywood and OSB, (Oriented Strand Board), are acceptable. One-half inch (1/2") High Density Fiberboard can be used over any rigid insulation.
Butt all insulation boards together, staggering the joints. All spaces larger than one-quarter inch (1/4") must be filled to provide a uniform smooth surface. DO NOT INSTALL SCREWS AND PLATES BETWEEN THE INSULATION BOARDS.

Screws and deck plates shall be applied at the minimum rate of eight (8), per 4' X 8' sheet of insulation, and five (5), per 4' X 4' sheet, or as required by the insulation manufacturer. When installing insulation around the perimeter, the minimum fastening pattern is one (1) deck plate and one (1) screw every two (2) square feet, or sixteen (16) per 4' X 8' sheet.

NOTE: Extra fasteners should be installed around protrusions such as pipes, chimneys, skylights, and irregularities in the roof deck.

DO NOT lay more insulation than can be covered and made water-tight with ROYAL EDGE MEMBRANE at the end of the working day.

FASTENING PATTERN

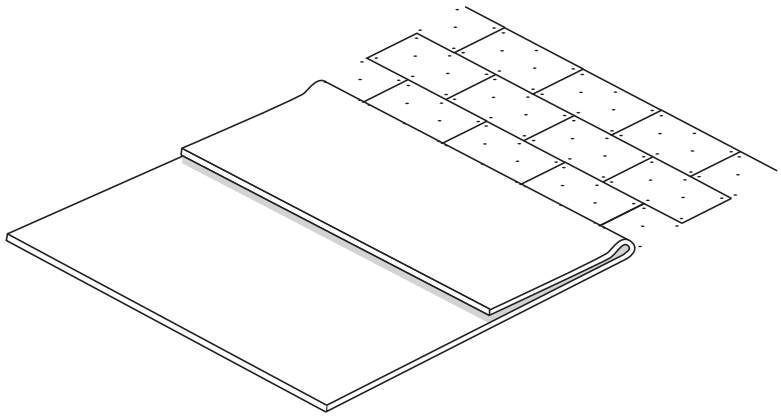


INSTALLATION OF RPI ROYAL EDGE EPDM AND RE-FLEX EPDM AND TPO MEMBRANES

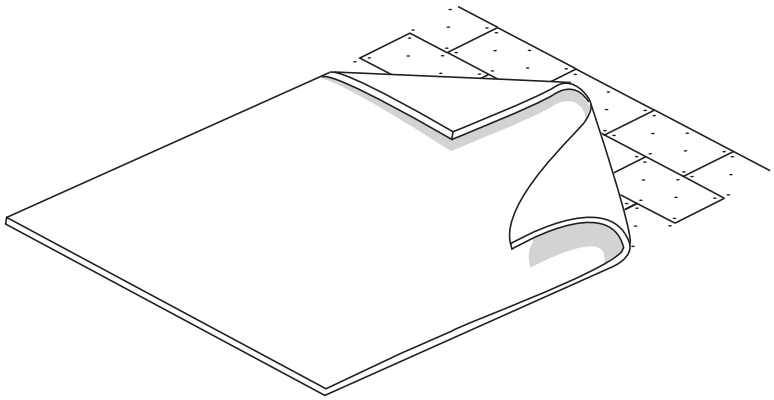
This procedure is the same for Royal Edge EPDM, Re-Flex EPDM, and Re-Flex TPO Systems.

Unroll the RPI membrane over the mechanically attached substrate so that the sheet is in the desired position and is wrinkle free.
Allow the RPI membrane to relax. Depending on weather conditions, this could take from fifteen (15) to thirty (30) minutes. When installing more than one EPDM sheet and using Splice Adhesive for seaming, allow for a six inch (6 ") minimum overlap for all seams. When using SEAM TAPE, allow the width of the SEAM TAPE being used.

Fold the sheet onto itself so that one-half (1/2) of the sheet is exposed; take care to avoid wrinkles.



Open and thoroughly stir the BONDING ADHESIVE. Using a solvent accepting paint roller; apply the BONDING ADHESIVE to the substrate and the RPI membrane sheet at a rate of forty five (45) to sixty (60) square feet per gallon. The adhesive must be applied to both surfaces in an even coat without globs or puddles. Allow the adhesive to dry to the finger touch (tacky not stringy).
Fluff air under the top half of the sheet and roll the sheet onto the glued substrate. Roll the middle of the sheet first, followed by the ends. DO NOT allow the ends of the sheet roll ahead of the middle. Wrinkles may be created when the ends of the membrane are rolled into place before the middle.



NOTE: When a protrusion is encountered (i.e., pipes, skylights, etc.), cut the field membrane from the nearest seam (edge) to allow the sheet to roll around the protrusion with the least possible cuts. Once the field sheet has been fully adhered into place, flash over the cut with a piece of RPI Royal Edge or RPI Re-Flex EPDM/TPO Cover Tape. When using Cover Tape, always use appropriate Primer. The flashing should extend a minimum of three inches (3") on each side of the cut.

To ensure 100% adhesion of the membrane to the substrate, use a stiff push broom to apply heavy pressure to the fully adhered portion of the sheet. DO NOT apply enough pressure to cause the RPI membrane to wrinkle. Fold back the remaining unglued portion of the sheet and repeat the process. Install adjoining sheets so that water flows OVER, and not against, the over-lapping edges.

DO NOT APPLY BONDING ADHESIVE TO SEAM AREAS.

USE RE-FLEX PRIMER/ACTIVATOR WITH ALL RE-FLEX (white) SEAM TAPES AND RE-FLEX (white) TAPED PRODUCTS.

SPLICING AND SEAMING WITH SPLICE ADHESIVE

Royal Edge (black) EPDM only

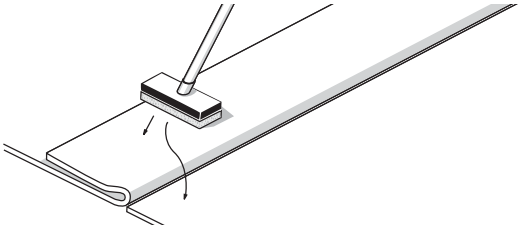
Fold the top ply of the seam back to expose the six inch (6") area to be seamed. Using a synthetic sponge mop or cotton rags; clean both surfaces at the splice area with RPI Membrane Cleaner at a maximum rate of two hundred (200) lineal feet per gallon. Be sure to clean a minimum of one inch (1") past the leading edge of the finished seam.

When cleaning the seam area using cotton rags, change the rags often. When using a sponge applicator; frequently clean the applicator.

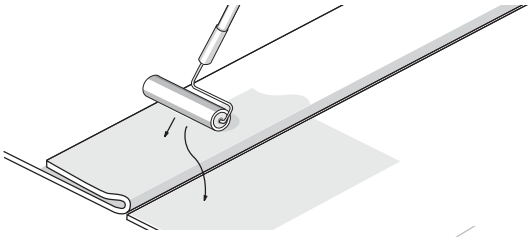
DO NOT ALLOW THE RAGS OR APPLICATOR TO BECOME LOADED WITH TALC OR OTHER CONTAMINANTS FROM THE MEMBRANE.

WARNING: MEMBRANE CLEANER IS EXTREMELY FLAMMABLE!! DO NOT SMOKE WHILE USING MEMBRANE CLEANER. KEEP AWAY FROM SPARKS, OPEN FLAMES AND OTHER IGNITION SOURCES. USE ONLY IN WELL VENTILATED AREAS.

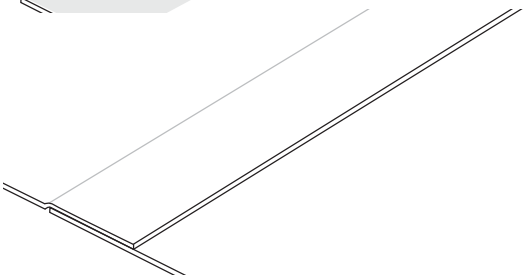
MEMBRANE CLEANER CLEANING PROCEDURE



SPLICING ADHESIVE APPLICATION



FINISHED LAP PRIOR TO CAULKING



Apply SPLICE ADHESIVE at the maximum rate of one hundred-thirty (130) to one hundred forty (140) lineal feet per gallon, (8 to 10 mils thick when dry). Allow the SPLICE ADHESIVE to dry to the finger touch, (tacky not stringy).

IMPORTANT: WHEN CLEANING AND APPLYING SPLICE ADHESIVE TO THE SEAM AREA; BE SURE TO EXTEND BOTH PROCEDURES PAST THE LEADING EDGE OF THE FINISHED SEAM.

Starting in the middle of the seam, fold the top ply onto the bottom ply, working from the middle to the ends of the seam. Make sure to avoid wrinkles and fish mouths. Using a steel or hypalon hand roller, roll the entire length of the seam from the middle toward the ends of the seam. First rolling across the seam; then rolling parallel with the seam.

Clean the seam edge with Membrane Cleaner and apply a one-quarter inch (1/4") bead of LAP CAULK centered over the seam edge. Make sure the caulk covers both the upper and lower parts of the seam membrane.

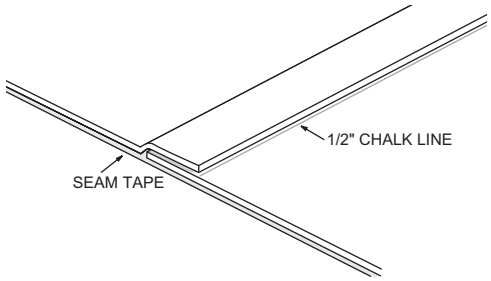
NOTE: Applying LAP CAULK should be the last application procedure. It is advisable to wait at least 4 hours after completing the seaming procedure before applying LAP CAULK. Applying LAP CAULK before the seams cure might cause the seam edge to distort and pucker.

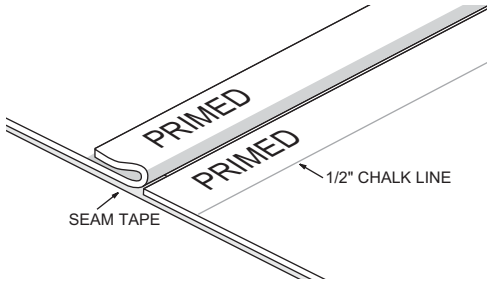
SEAM TAPES

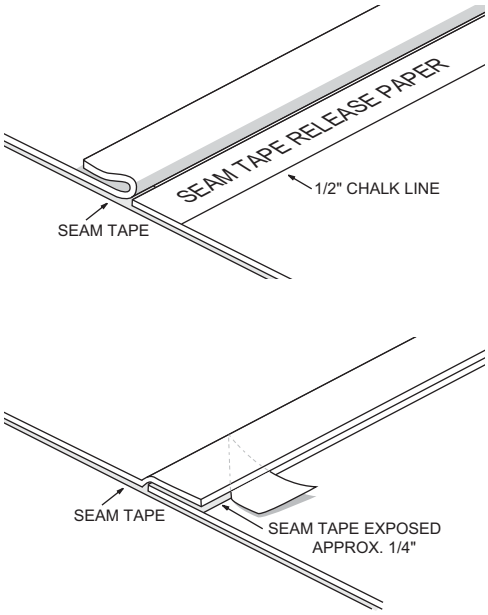
This procedure is the same for Royal Edge EPDM, Re-Flex EPDM, and Re-Flex TPO Systems.

Position the membrane sheets so that the width of the seam area, is the width of the seam tape used. Using a membrane marker, mark the bottom membrane (1/2") inch from the seam edge. When using a chalk line, remove excess chalk from by snapping the line into the air, then chalk a line one half inch (1/2") from the leading seam edge.
Fold the top seam membrane back to expose the seam area. Using the RPI Scrub Pad, apply the Seam Tape Primer (black), or Re-Flex Primer/Activator (white) to the seam area using back and forth strokes with moderate pressure until the seam surface attains a smooth flat appearance. Apply the Seam Tape Primer past the seam edge to the chalk line. Allow the Primer to flash off.

NOTE: If the EPDM membrane is contaminated with dirt, dust, or debris; clean the seam area with Membrane Cleaner before applying Seam Tape Primer. This installation process should be followed for Re-Flex TPO, Re-Flex EPDM and Royal Edge EPDM Systems.







Unroll the Seam Tape along the length of the seam, tape side down, aligning the Seam Tape paper with the marks or chalk line. Using moderate pressure; draw the Scrub Pad along the Seam Tape release paper. This will set the Seam Tape into place and keep air from being trapped under the tape. Fold the top membrane onto the Seam Tape release paper.

Reaching under the top ply of membrane; pull the release paper away from the Seam Tape at a 45 degree angle to the seam. While removing the paper; draw your hand across the seam, from the back to the leading edge. This will prevent wrinkles and fish mouths from forming in the seam. After the paper is removed, roll the entire length of the seam with a steel/hypalon hand roller. First, across the seam, and then the length of the seam.

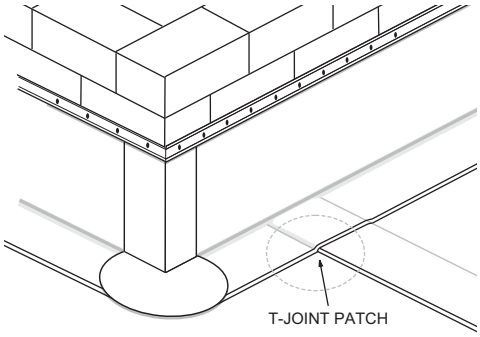
IMPORTANT! If the SEAM TAPE does not visibly extend beyond the leading seam edge; the edge should be cleaned with Membrane Cleaner and caulked with LAP CAULK.

NOTE: When splicing Seam Tape; overlap each piece a minimum of one inch (l") and firmly roll overlap with a steel/hypalon hand roller.

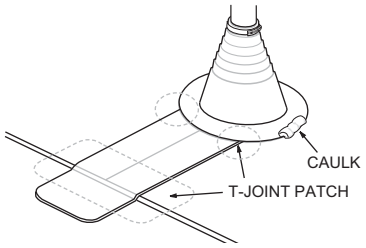
T-JOINTS

A T-JOINT is formed when two sheets of CURED EPDM form a seam which travels under, or over, a third ply. The center of the "T-joint is where the middle sheet ends and the top sheet bridges over the middle sheet. Uncured EPDM T-JOINT PATCHES should be used in both SPLICE ADHESIVE AND SEAM TAPE applications.

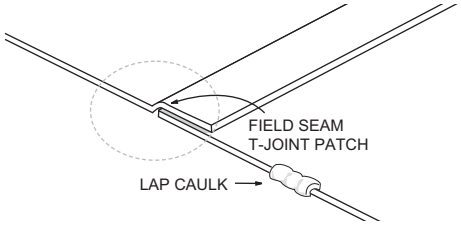
AREAS WHERE T-JOINT PATCHES ARE REQUIRED:



WHERE A FIELD SEAM TRAVELS UNDER A WALL FLASHING.



WHERE A COVER STRIP TRAVELS UNDER A PIPE BOOT OR OTHER FLASHING.



WHERE A HORIZONTAL SEAM WILL LAP OVER, OR TRANSVERSE A VERTICAL SEAM.

IMPORTANT: ONLY UNCURED EPDM IS USED FOR T-JOINT PATCHES ON ROYAL EDGE EPDM AND RE-FLEX EPDM SYSTEMS.

Although a typical T-JOINT PATCH is six inches (6") in diameter, a single T-JOINT PATCH can be made large enough to accommodate more than one T-JOINT.

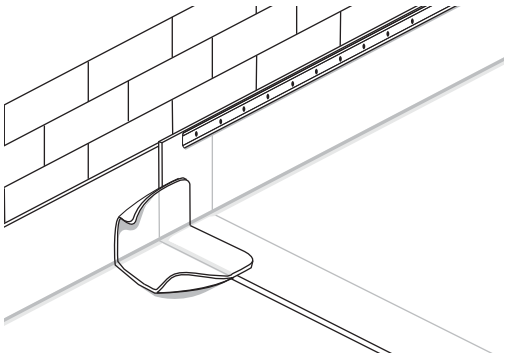
T-JOINTS USING SPLICE ADHESIVE AND MEMBRANE CLEANER: ROYAL EDGE EPDM (black) Only
Install a six inch (6") diameter Uncured Patch centered over the T-Joint using standard seaming procedures. Apply a minimum one quarter inch (1/4") bead of Lap Caulk around the entire patch.

T-JOINTS USING TAPE BACKED UNCURED:
For Royal Edge EPDM, Re-Flex EPDM, and Re-Flex TPO Systems.
Remove any dust or debris. If necessary, clean the area with Membrane Cleaner. Apply SEAM TAPE PRIMER with a SCRUB PAD and install UNCURED WITH TAPE T-JOINT PATCH.

NOTE: All T-JOINT PATCHES should be thoroughly rolled in with a steel/hypalon hand roller.

FIELD SEAM RADICAL BEND

Where a field seam makes a radical bend (turns up a wall or down over a perimeter edge), a six inch (6") wide by twelve inch (12") long piece of Uncured Flashing is to be adhered over the seam. Round the corners of the Radical Bend Flashing Patch. Following standard flashing procedures, install the flashing so that half the flashing is on either side of the radical bend.



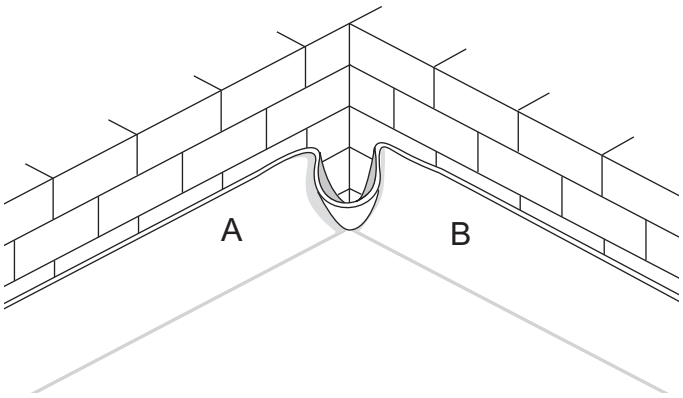
INSIDE CORNERS

For Royal Edge EPDM, Re-Flex EPDM, and Re-Flex TPO Systems.

Adhere the field sheet to the substrate until the membrane reaches the wall. Apply BONDING ADHESIVE to the folded membrane, and the wall area. Starting at the base or angle change between the corner and opposite end of each wall, begin to roll the EPDM sheet up and along the wall. ALWAYS ROLL THE MEMBRANE INTO THE ANGLE CHANGE FROM THE TOP, USING YOUR FINGERS TO TUCK THE MEMBRANE SNUGLY INTO THE INSIDE CORNER WITHOUT STRETCHING THE MEMBRANE.

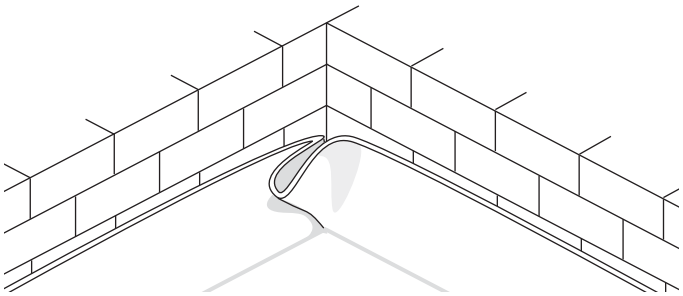
As the membrane is adhered into place, roll the excess EPDM material towards the corner. Take care to thoroughly adhere the membrane into the angle change before rolling the membrane up the walls. Broom or hand roll all the vertical flashings down to the angle change and onto the deck a minimum of 12" (inches) to ensure 100% adhesion.

NOTE: Wall Flashings should extend a minimum of twelve inches (12") above the roof deck.

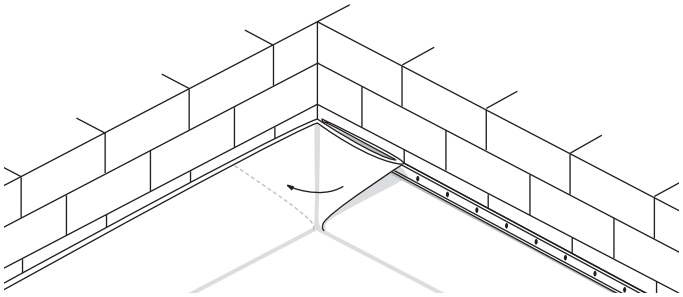


After one side is flashed in, (A),begin the other side, (B). When both walls are flashed in, all excess material should form a pocket in the corner.

Clean the inside pocket of the fold with Membrane Cleaner and apply BONDING ADHESIVE to both sides of the pocket. Allow the adhesive to dry to the finger touch (tacky not stringy).



NOTE: It is important to adhere the wall flashing on each side of the corner as tightly into the corner as possible. DO NOT STRETCH THE MEMBRANE.



Starting at the base of the inside corner pocket, press the two glued surfaces together. Following standard seaming procedures; adhere the pocket to either wall. Again, following standard flashing procedures, install an UNCURED EPDM (Royal Edge EPDM black, or Re-Flex EPDM white flashing).
Re-Flex TPO Systems use a Re-Flex Uncured Flashing patch six inches (6") wide extending from the bottom of the pocket fold, to the top.

The patch should extend (3") three inches onto the pocket and (3") three inches onto the wall.

Starting at the base of the inside corner pocket, press the two glued surfaces together. Following standard seaming procedures; adhere the pocket to either wall. Again, following standard flashing procedures, install an UNCURED EPDM (Royal Edge EPDM black, or Re-Flex EPDM white flashing). Re-Flex TPO Systems use a Re-Flex Uncured Flashing patch six inches (6") wide extending from the bottom of the pocket fold, to the top. The patch should extend (3") three inches onto the pocket and (3") three inches onto the wall.

Determine the height of the finished wall flashing and placement of the RPI aluminum TERMINATION BAR. Peel the top of the wall flashing from the wall and apply a heavy bead of WATER CUT-OFF MASTIC between the EPDM/TPO and wall. The MASTIC should be applied so that the final position of the TERMINATION BAR will be directly over the WATER CUT-OFF MASTIC.

Fasten the TERMINATION BAR with Nylon/Metal Anchor Pins, or Aluminum Sheet Metal/Wood Screws. Use appropriate fasteners for substrate. Install a fastener in every pre-drilled hole. Remove excess membrane that extends above the TERMINATION BAR and apply LAP CAULK to the top of the BAR.

NOTE:

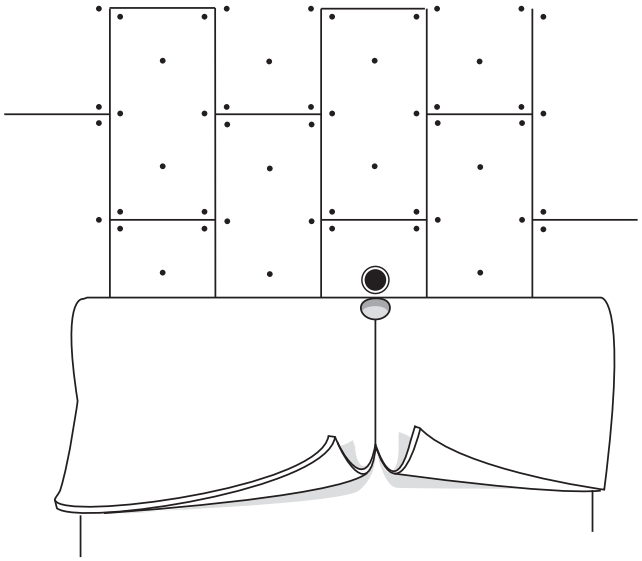
1. When using wood shakes, or other siding materials, a TERMINATION BAR is not required if the siding material is brought down at least eight inches (8") below the top of the EPDM/TPO sheet. Always extend the membrane up the wall a minimum of twelve inches (12"). If job conditions will not allow the membrane to extend twelve inches, a TERMINATION BAR is required.

2. All siding must be kept a minimum of four inches (4") above the roof deck.

3. WATER CUT-OFF MASTIC should be applied between the membrane and wall whenever a TERMINATION BAR is used.

PIPE FLASHINGS

When laying out the field sheets and a pipe is encountered, roll the folded membrane to the pipe. Be sure to maintain the proper alignment of the sheet with the roof edge, wall, and seams. Make a straight cut from the pipe to the nearest edge of the field sheet. Cut a hole to match the diameter of the pipe and roll the field sheet around the pipe. Check the final position of the sheet. Fold the membrane back and begin the bonding procedure.



PIPE BOOT

This Cover Tape application is the same for Royal Edge EPDM/R-Flex TPO, and Re-Flex EPDM Systems.

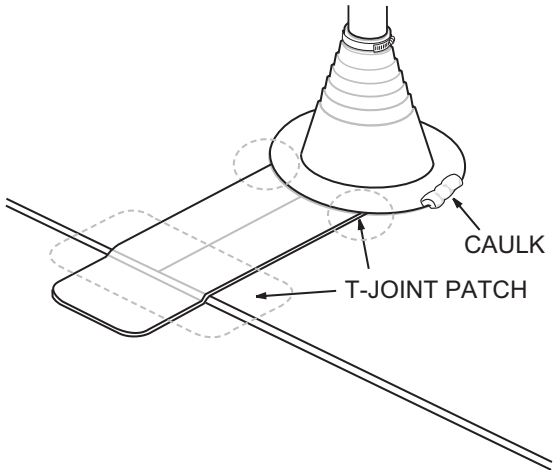
After the field sheet has been glued and broomed into place, apply a minimum six inch (6") wide CURED COVER STRIP over the entire cut in the field sheet from the pipe to the end of the sheet using standard seaming procedures.

When using Splice Adhesive for EPDM Pipe Boots, use the following procedure to install the pipe boot.

1. Clean all debris, rust, old flashing materials, dirt and dust from the existing pipe. Select the proper size of the Multi-Size pipe boot and cut the pipe boot above the thick size index ring.

   DO NOT CUT DIAGONALLY THRU THE SIZE INDEX RING.

   Install the boot and check for proper fit. Remove the boot and measure the height of boot. Add one inch (1") to the measurement and transfer the measurement to the pipe. Apply a bead of *Water Cut-Off Mastic* at the mark extending around the pipe.



2. Install the pipe boot over the pipe and turn the boot inside out, exposing the bottom of the boot flange. Clean the field membrane at least ten inches (10") in all directions from the pipe. Clean the pipe boot flange and apply *SPLICE ADHESIVE* to both surfaces. Allow the *SPLICE ADHESIVE* to flash off. Pull the pipe boot down, sliding the pipe over the *Water Cut-Off Mastic*, and mating the pipe boot to the field membrane. Hand roll the base of the adhered pipe boot to the field membrane.

3. Install a stainless steel adjustable pipe clamping ring over the pipe boot. After tightening the clamping ring, apply *LAP CAULK* around the top of the boot.

When Installing a Royal Edge EPDM, Re-Flex EPDM, or Re-Flex TPO Pipe Boot with Tape, use the following procedures.

1. Clean all debris, rust, old flashing materials, dirt and dust from the existing pipe. Select the proper size of the Multi-Size pipe boot and cut the pipe boot above the thick size index ring. DO NOT CUT DIAGONALLY THRU THE SIZE INDEX RING.
Install the boot and check for proper fit. Remove the boot and measure the height of boot. Add one inch (1") to the measurement and transfer the measurement to the pipe. Apply a bead of *Water Cut-Off Mastic* at the mark extending around the pipe.

1. Using a *RPI Scrub Pad,* apply *Royal Edge Primer or Re-Flex Primer/Activator* to the membrane around the base of the pipe. Allow the Primer to flash-off.
2. Slide the Pipe Boot down the pipe into position ¼ " (inch) above the primer area. Lift the Pipe Boot and, while maintaining the Pipe Boot position, peel the release paper from the pipe and mate the taped boot to the primed area. After all release paper is removed and the Pipe Boot is in position, hand roll the entire tape area to ensure adhesion.

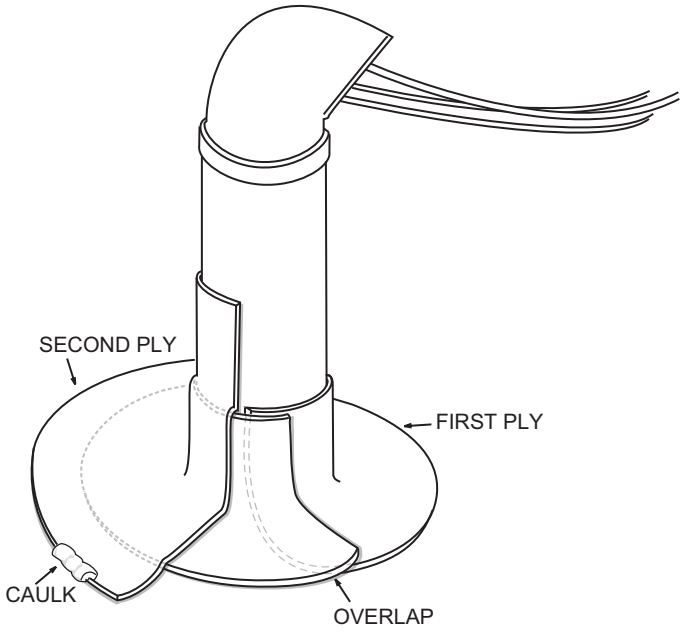
PIPE OR CONDUIT FLASHINGS USING UNCURED EPDM

This application is for Royal Edge EPDM (black), using Splice Adhesive and Membrane Cleaner. Use appropriate materials for Re-Flex EPDM (white) and Re-Flex TPO Systems.

Use appropriate installation procedures and products when installing Uncured flashings with Tape. When installing flashings using *Royal Edge Splice Adhesive*, follow standard *Splice Adhesive* installation guidelines.

When a pipe or conduit is encountered and cannot be flashed with a pipe boot; the protrusion must be flashed using 2-plys of UNCURED FLASHING.

1. After the field sheet has been glued and broomed in, the cut made from the protrusion to the nearest edge should be stripped in using proper seaming procedures.
2. Remove any dirt, debris, dust, and old flashings from the existing protrusion. Clean the field membrane around the protrusion using *Membrane Cleaner.*



3. Using UNCURED FLASHING, install a six inch (6") wide piece extending three inches (3") up the protrusion and three inches (3") onto the roof deck. Wrap the entire protrusion, allowing a two inch (2") overlap of each flashing. Use as many pieces as necessary to flash the pipe.

NOTE: When using *Royal Edge Uncured Flashings with Tape* (black), use *Seam Tape Primer.* When using *Re-Flex Uncured Flashing with Tape* (white), use *Re-Flex Primer/Activator.* Always apply Primers with a *RPI Scrub Pad.*

4. After the first ply is completed, install the second ply using a twelve inch (12") piece of UNCURED FLASHING. Wrap the protrusion with eight inches (S") of UNCURED FLASHING extending up the protrusion, and four inches (4") onto the roof deck. Make sure to stagger the end laps of the UNCURED FLASHING so that one lap is not directly over another. Use as many pieces as necessary to complete the flashing detail.

NOTE: It is recommended to extend the flashings above the roof deck a minimum of eight inches (8"). If necessary, wrap the entire protrusion with another ply of EPDM/TPO to attain the desired height. Make sure to overlap the top of the second ply a minimum of two inches (2").

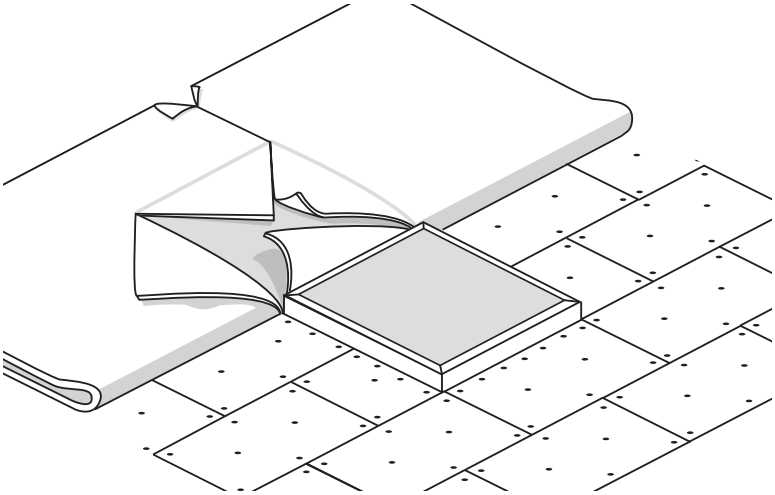
Always extend the new EPDM/TPO flashings ABOVE any old flashings that may remain on the protrusion. Clean and apply LAP CAULK to the flashings. DO NOT install a Pipe Boot Clamp over Uncured Flashings. The clamp will damage the uncured membrane. Only apply clamps over cured EPDM/TPO membranes.

OUTSIDE CORNERS

Royal Edge EPDM (black), Re-Flex EPDM (white), and Re-Flex TPO Systems use the same installation procedures.

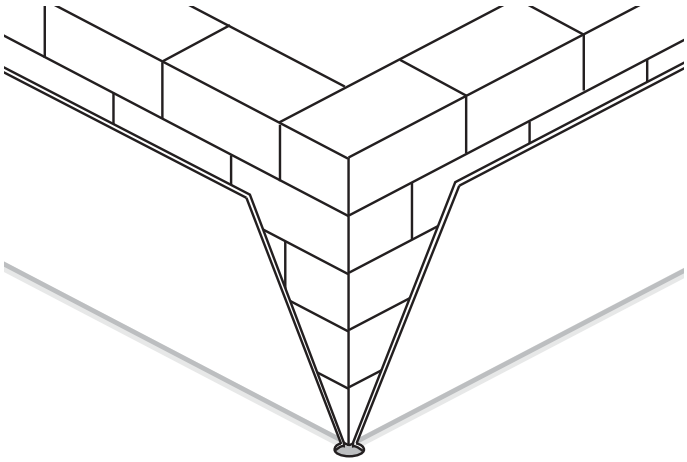
When encountering a protrusion that requires outside corner flashings such as Chimneys, skylights, curbs, etc., use the following flashing procedures.

1. Prior to applying the adhesive, and while maintaining proper sheet alignment with walls, perimeter edges and other protrusions; unroll the membrane up to the base of the unit.

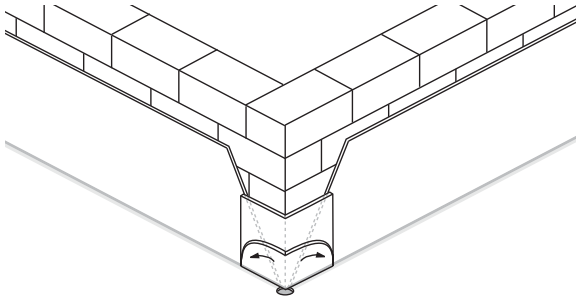


2. Measure the width and depth of the unit and transfer the corresponding dimensions onto the folded membrane. Draw an X inside the box. Cut the X mark and from one corner, cut a straight line to the nearest edge of the membrane. Roll the membrane around the unit; leaving a triangle of membrane turning up all four (4) sides. Using a standard paper punch or scissors; punch or cut a round hole at every angle change of the membrane at the outside corners. This will prevent the cut in the membrane from migrating.

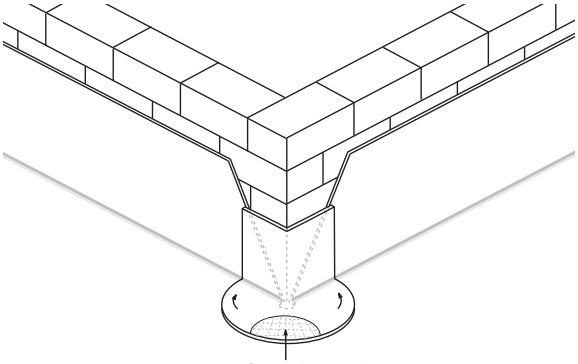
3. After all cuts are made, lay the membrane into place, and check alignment. When the membrane has been correctly positioned, fold the membrane back and begin bonding procedures. After the field bonding is complete, roll the membrane into place and apply adhesive to the vertical membrane flashing triangles. After flash-off, roll the flashing triangles up the sides of the unit, (chimney, skylight, etc.). Take care to bond the membrane into the angle change so that the membrane is completely adhered. Hand roll the entire vertical membrane and inside corner extending 12" (inches) onto the roof deck.



4. Prior to installing any outside corner flashings, clean the areas to be flashed, if necessary, with *Membrane Cleaner.* Cut the Royal Edge or Re-Flex Uncured Flashing six inches (6") wide by eight inches (8") long. Cut the corners round and remove the protective plastic. Using a *Scrub Pad,* apply the appropriate primer to the field membrane and vertical areas to be flashed. After the primer has flashed off; fold one end of the flashing two inches (2") from the end (the fold determines the amount of flashing that will extend onto the roof deck). Place the membrane against the vertical surface so that half the flashing is on either side of the corner. Fold the flashing around the corner and adhere to the vertical surface. The flashing should extend minimum two inches (2") onto the roof deck, and six inches (6") up the vertical surface.



STRETCH MEMBRANE IN
DIRECTION OF ARROWS

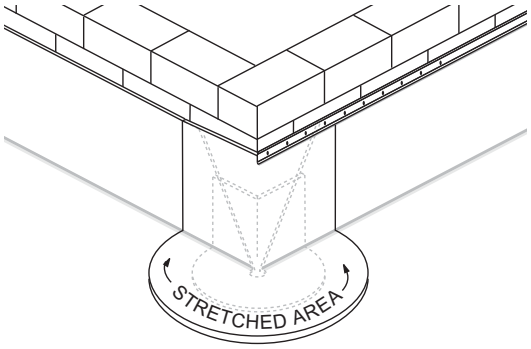


AREA TO BE STRETCHED

EXCESS MEMBRANE SHOULD BE
MOVED IN DIRECTION OF ARROWS

5. Beginning at one inside angle change, adhere the flashing into the angle and approximately one inch (1") onto the roof. Before the membrane can be adhered to the other angle change and onto the roof, it must be stretched. Do not stretch the membrane at the angle changes or base of the outside corner (fig. 3.oc) All stretching should be done to the membrane as shown in (fig. 3A OC). stretching the middle of the flashing towards each corner as the flashing is mated to the field membrane.

IMPORTANT: The outside and inside corners should NOT BE STRETCHED! All stretching should be done in the middle of the bottom part of the flashing.



(page 25)

picture from page 25 (5.0C)

6. The second layer of UNCURED FLASHING should be installed using the same flashing procedures as the first, but should extend onto the roof a minimum four inches (4"), and up the vertical a minimum of eight inches (8").

For example:
If the first ply of flashing measures six inches (6") wide by eight inches (8") long; the second ply should measure ten inches (10") wide by twelve inches (12") long.

7. If it is necessary to add flashing membrane to attain a taller flashing detail, cut field membrane the desired dimensions and adhere the new membrane over the previously installed membrane and flashing details.

IMPORTANT: ALWAYS EXTEND THE NEW FLASHINGS ABOVE ANY EXISTING MEMBRANES OR FLASHING MATERIALS.

8. After the desired flashing height is attained and placement of the Termination Bar is determined; peel the top edge of the membrane back and apply a bead of WATER CUT-OFF MASTIC between the membrane and the wall or curb. Install the TERMINATION BAR directly over the membrane and WATER CUT-OFF MASTIC. Clean any CUT-OFF MASTIC from the TERMINATION BAR and apply a bead of LAP CAULK over the top of the bar.

9. After all flashings are completed, clean the flashing edges with Membrane Cleaner and apply a one-quarter inch (1/2") bead of LAP CAULK over the seam edge.

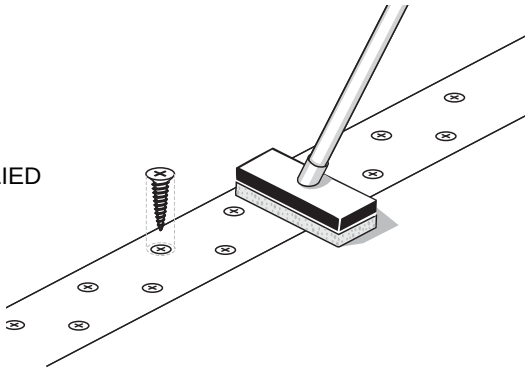
Note: When using RPI Uncured Flashing without Tape, follow standard Splice Adhesive procedures.

METAL DRIP EDGE

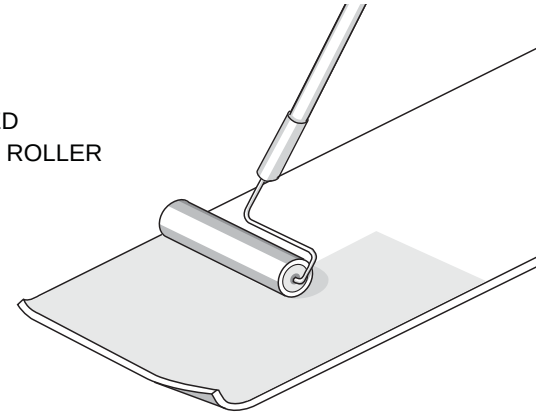
For Royal Edge EPDM when using *RPI Splice Adhesive.*

Fully adhere the field membrane over the roof edge. Allow the membrane to extend past the previous roof line and nail it every four inches (4") on center.
Prior to installing the metal drip edge; sand the metal with a light sandpaper. Install using galvanized deck screws or ring shank nails every six inches (6") on center in a staggered pattern.

MEMBRANE CLEANER APPLIED WITH A SPONGE MOP OR A CLEAN COTTON CLOTH

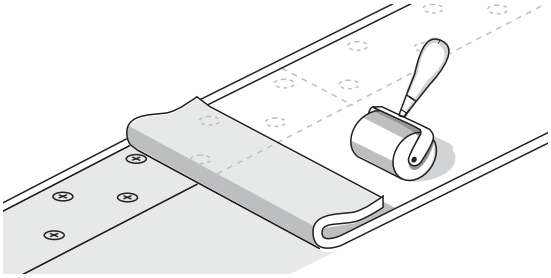


SPLICE ADHESIVE APPLIED WITH A BRUSH OR 4 INCH ROLLER



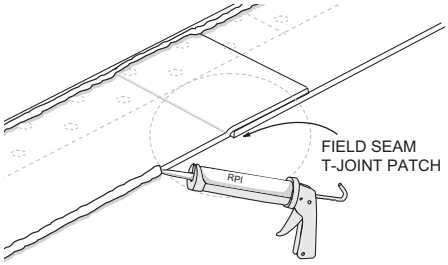
Using *Membrane Cleaner*, clean the metal, the membrane to be seamed, and the Cured Cover Strip. Apply an even coat of Splice Adhesive to the metal drip edge, the membrane area to be seamed, and the Cured Cover Strip.

After the *Splice Adhesive* has flashed off, install the *Cured* cover strip one half (1/2") in from the outside edge of the metal drip edge. Do not align the Cover Strip with the outside metal drip edge. Roll the entire cover strip with a hand roller.



Clean all *Cured* cover strip edges with *Membrane Cleaner* and apply a one quarter inch (1/4") bead of *Lap Caulk* to the seam edges.

NOTE: When splicing two pieces of cover strip, allow for a four inch (4") lap on the splice and install an *Uncured T-Joint Patch* over the *T-Joint*.



COVER TAPE ON METAL DRIP EDGE

For Royal Edge EPDM, Re-Flex EPDM, and Re-Flex TPO Cover Tape installations.

Fully adhere the field membrane over the roof edge. Allow the membrane to extend past the previous roof line and nail it every four inches (4") on center.

Prior to installing the metal drip edge; sand the metal with a light sandpaper. Install using galvanized deck screws or ring shank nails every six inches (6") on center in a staggered pattern.
Using Membrane Cleaner, clean the metal, and the field membrane to be flashed. Using a Scrub Pad, apply the appropriate primer to the metal drip edge and field membrane area to be flashed.

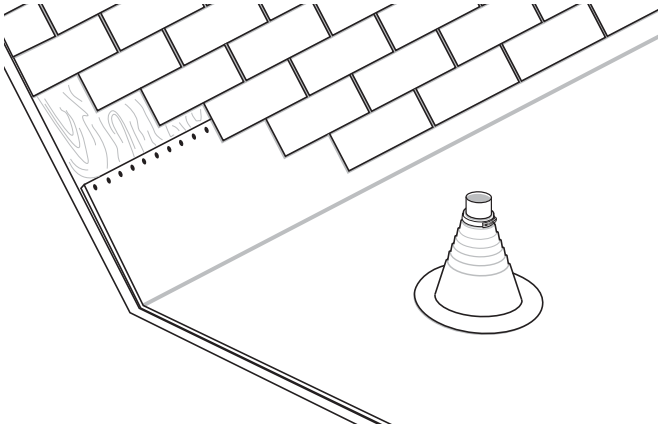
After the primer has flashed off; install the Cover Tape by aligning the release paper with the outside edge of the metal drip edge (when the release paper is removed, the Cover Tape will be approximately ¼" (inch) to ½" (inch) from the outside edge of the metal drip. Roll the entire cover strip with a steel hand roller.

NOTE: When splicing two pieces of cover strip, allow for a four inch (4") lap on the splice and install an *Uncured T-Joint Patch.*

EPDM MEMBRANE TO SHINGLE TRANSITION

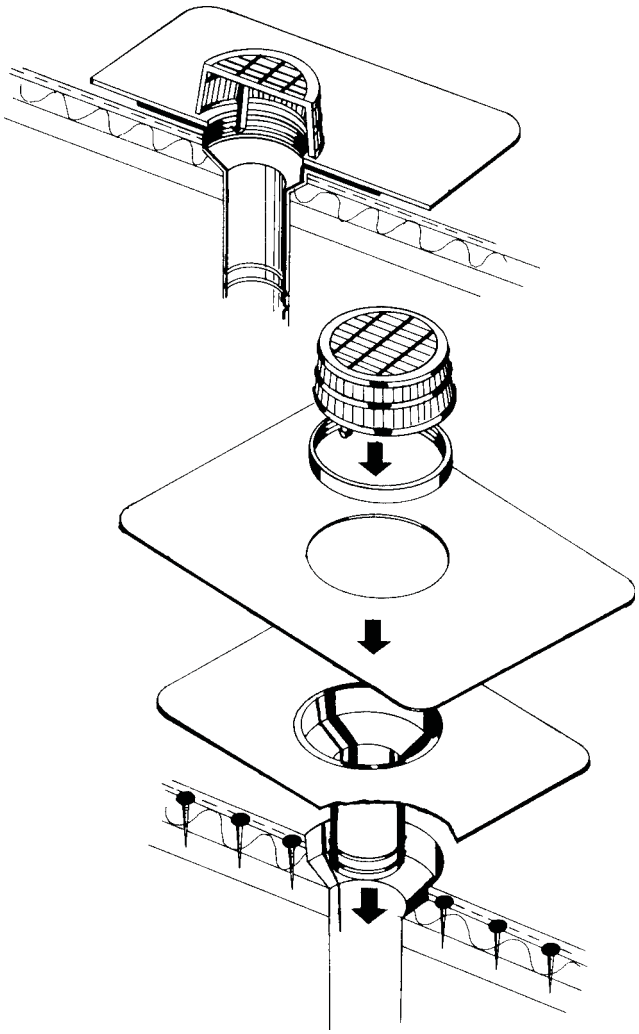
For Royal Edge EPDM, Re-Flex EPDM, and Re-Flex TPO Cover Tape installations.

When installing an EPDM/TPO membrane system with a tie-in to an existing shingle roof; remove a minimum of three (3) courses of shingles. Adhere the membrane onto the sloped roof deck. Peel the top of the EPDM/TPO membrane back and apply a bead of *WATER CUT-OFF MASTIC* between the membrane and the deck. Nail the top of the membrane every six inches (6") and install the shingles over the EPDM/TPO membrane.



Keep the bottom course of shingles a minimum of four inches (4") above the roof angle change. To adhere the bottom course of loose shingle tabs to the membrane, lift each tab and apply a one inch (1") long bead of *LAP CAULK.*

DRAIN SLEEVE DETAIL



ONE PIECE DRAIN SLEEVE

Drain Sleeve Inserts are used when the existing drain does not have a clamping ring assembly, or cannot be taken up, properly cleaned, and incorporated into the new roof system.

NOTE: Before beginning the re-roof project; thoroughly clean the existing drain. Do not allow debris to clog the drain pipe. The new Drain Sleeve Insert should be lower (sumped) than the new roof system surface.

Install the field membrane over the drain. Cut a circle the size of the Drain Insert Pipe directly over the existing drain. Following standard seaming procedures, clean the field membrane and Drain Sleeve Insert. Apply *SPLICE ADHESIVE* to the field membrane and the bottom of the Drain Insert. After the adhesives have flashed off, apply a heavy bead of *Water Cut-Off Mastic* above each back up ring and at the angle change of the drain bowl and insert the drain sleeve into the existing drain. If it is necessary to mechanically fasten the Drain Sleeve, use the proper length deck screws with two inch (2"), or three inch (3") plates.
After the Drain Sleeve Insert has been installed, using standard seaming procedures, clean the field membrane and Drain Sleeve Insert with *Membrane Cleaner*. Install a "target patch" over the top of the Drain Sleeve Insert. Cut the "target patch" to extend six inches (6"), on all sides, past the edge of the Drain Sleeve Insert. Cut the target hole one half inch (1/2") smaller than the strainer securement ring.

Clean all seam edges with *Membrane Cleaner* and apply a one quarter inch (1/2") bead of *LAP CAULK*. Insert the strainer ring into the drain bowl and install the strainer.

DRAINS WITH CLAMPING RINGS

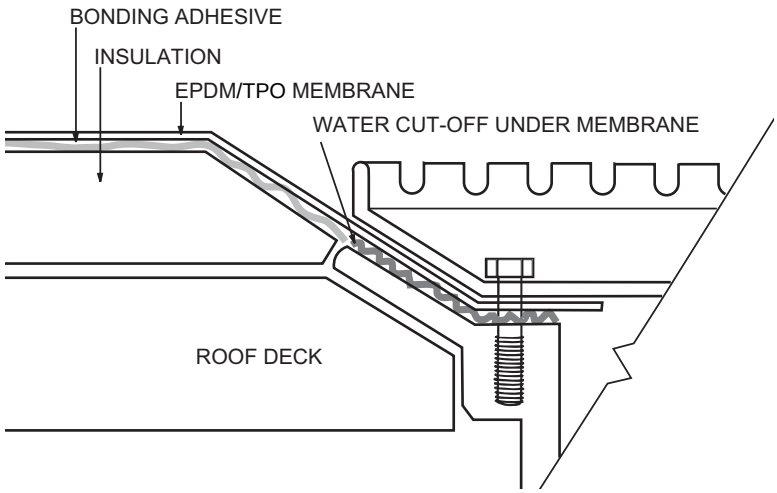
For Royal Edge EPDM, Re-Flex EPDM, and Re-Flex TPO Installations

If the existing drain has a clamping ring assembly; remove the strainer, clamping ring bolts, and clamping ring. Clean the drain bowl, clamping ring flange, and clamping ring. Do not allow debris to clog the drain pipe. Install the field membrane over the drain. To determine where to cut the hole; place the drain clamping ring over the membrane onto the clamping ring flange. Allow the membrane to extend one inch (1") past the clamping ring.

After the membrane has been cut, lift the membrane and apply several heavy beads of *WATER CUT-OFF MASTIC* to the clamping ring flange. It is recommended to use a minimum of one-half (1/2) tube per drain.

Align the clamping ring over the membrane and punch holes where necessary to install the clamping ring bolts. Do not cut the membrane back to the bolts. Attach the clamping ring and install the strainer.

NOTE: The installation of a tapered drain “sump area” may be required where the existing drain bowl or new insert is several inches lower than the top surface of the roof system. The sump area allows the roof membrane to make a gradual desent (angle change) to the drain clamping ring. A tapered sump area will also allow heat loss at the drain area which helps prevent the drain from freezing during cold temperatures.

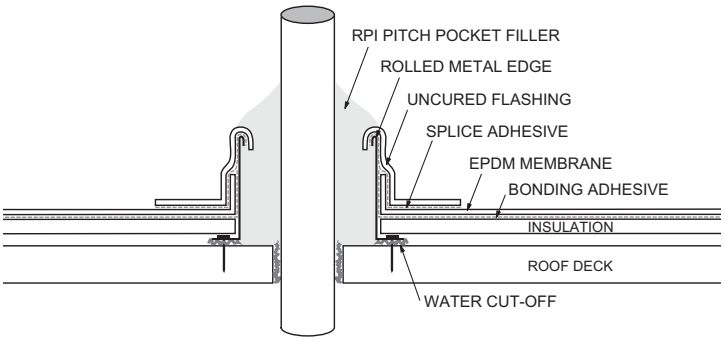


PITCH POCKETS

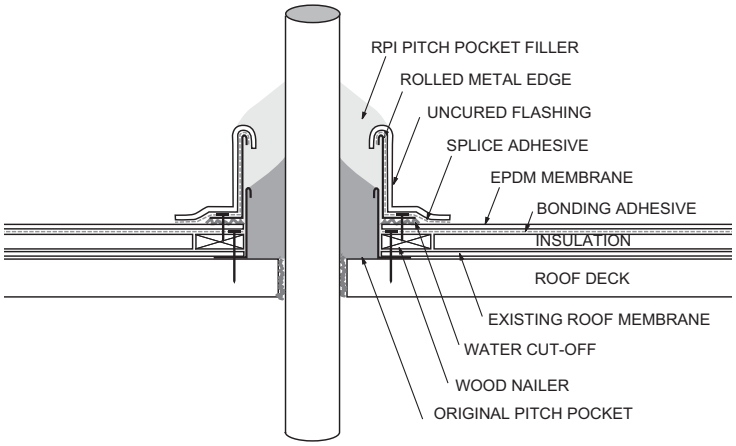
For Royal Edge EPDM, Re-Flex EPDM, and Re-Flex TPO installations.

When installing a metal Pitch Pocket on a re-roof project, always install a wooden nailer around the protrusion. The nailer should be wider than the base flange of the Pitch Pocket and the same thickness as the retrofit insulation or cover board. Remove any foam insulation wrap to a point above the Pourable Sealer line. To ensure the *Pourable Sealer* will adhere to the protrusions, clean and apply *Splice Adhesive* or Re-Flex Primer (EPDM), or Re-Flex Primer/Activator(TPO), to the protrusion, extending the adhesive/primer above the *Pourable Sealer* line. Adhere the membrane up to and around the protrusion. Apply a bead of *Water Cut-Off Mastic* to the bottom of the Pitch Pocket and secure the Pocket to the nailer.

NEW CONSTRUCTION

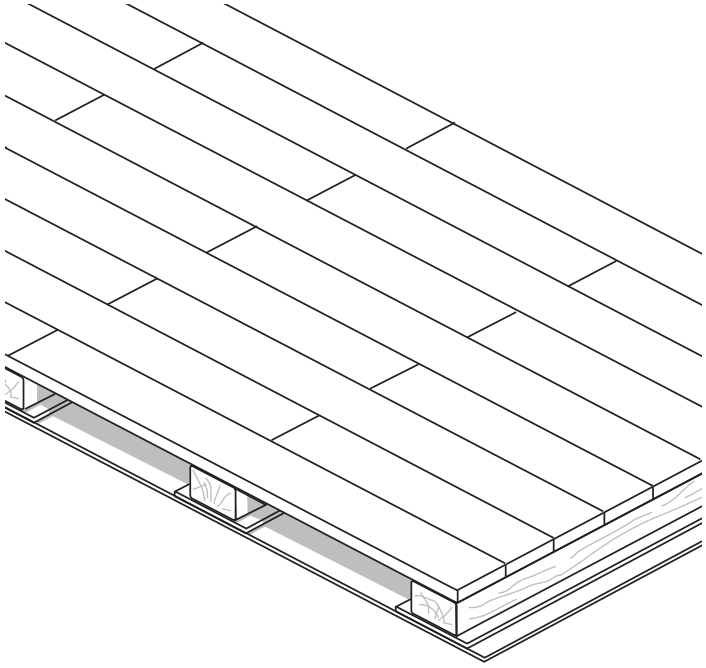


REROOF



WOOD DECKS

When installing a wood deck over an EPDM/TPO membrane, the deck sleepers should be laid over an extra piece of EPDM/TPO membrane called a separator sheet. The separator sheet should extend a minimum of two inches (2") past the sleeper on all sides and should be adhered with Seam Tape.



DO NOT attach the sleepers through the membrane. The deck should be secured at a side wall, post, or perimeter area.When attaching outdoor carpet. Use an exterior grade latex based carpet adhesive according to manufacturer's instructions.

IMPORTANT: THE EPDM/TPO MEMBRANE IS NOT DESIGNED AS A FINAL WALKING SURFACE AND SHOULD BE PROTECTED FROM EXCESSIVE FOOT TRAFFIC.

ROYAL EDGE EPDM SYSTEM PRODUCT GLOSSARY AND APPLICATION

ROYAL EDGE SOLVENT BASED EPDM BONDING ADHESIVE:

An adhesive used to adhere the field membrane to recover/barrier boards, insulation, brick and block walls. The adhesive should be thoroughly stirred before using. Apply with a nine inch (9") solvent based roller cover. To be used only with Royal Edge EPDM and Re-Flex EPDM products and installations. Adhesive is applied to both surfaces and allowed to "flash-off"(dry) before mating the surfaces together.
COVERAGE: Approximately 45 to 60 sq. ft. of finished roof per gallon.

ROYAL EDGE LOW VOC BONDING ADHESIVE (solvent based):

A solvent based adhesive used to adhered Royal Edge EPDM, Re-Flex EPDM, and Re-Flex TPO. Specially formulated to meet low voc restrictions which may be required in different states. Contractor should refer to local, state, and federal regulations to comply with and meet VOC limitations.

ROYAL EDGE WATER-BASED BONDING ADHESIVE:

Can be used with Royal Edge EPDM, Re-Flex EPDM, and Re-Flex TPO products and installations. Adhesive can be installed "wet" or "dry".

WET APPLICATION: A heavy application is applied to substrate and the membrane is rolled into the wet adhesive and broomed with heavy pressure to transfer the wet adhesive to the membrane. DO NOT ALLOW THE ADHESIVE TO "SKIN OVER" BEFORE ROLLING AND BROOMING THE MEMBRANE INTO THE ADHESIVE. If the adhesive skins over, the adhesive will not transfer to the membrane resulting is loss of adhesion.

DRY APPLICATION: Apply adhesive to both surfaces (substrate and membrane), and allow to dry. The adhesive will appear clear when dry. Mate the surfaces together and apply heavy pressure with a push broom or roller to ensure 100% adhesion.

DO NOT INSTALL IN THE WET APPLICATION IF HIGH WIND EVENTS ARE EXPECTED BEFORE CURE TIME IS COMPLETE. ALLOW 48 HOURS ADHESIVE CURE TIME.
IT IS RECOMMENDED TO USE SOLVENT BASED ADHESIVE FOR VERTICAL SURFACES.

ROYAL EDGE SPLICE ADHESIVE

A solvent based adhesive used to bond two EPDM membranes together. Also used to adhere EPDM membrane to brick, block and other substrates in EPDM flashing details. Black color for use with black EPDM, clear color for use with white EPDM. Do not use with Re-Flex TPO products.

ROYAL EDGE EPDM MEMBRANE CLEANER

Used to clean talc, dust, and other contaminants from EPDM prior to applying Splice Adhesive. Can also be used before applying Seam Tape Primer. Apply using clean cotton rags or synthetic sponge mop to area to be spliced. Change rags/clean sponge frequently.

ROYAL EDGE LOW VOC MEMBRANE CLEANER

Used to clean membranes prior to applying Seam Adhesives and Primers.
Specially formulated to meet low VOC restrictions which may be required in different states. Contractor should refer to local, state, and federal regulations to comply with and meet VOC limitations.

Royal Edge EPDM Seam Tape Primer

A primer used to prepare the surface to which a Royal Edge EPDM Seam Tape or Tape backed product will be adhered. Seam Tape Primer is installed with a Scrub Pad. Seam Tape Primer is only to be used with RPI EPDM products and installations.

ROYAL EDGE LOW VOC SEAM TAPE PRIMER

A primer used to prepare the surface to which a Royal Edge EPDM, Re-Flex EPDM, or Re-Flex TPO Seam Tape or Tape backed product will be adhered. Seam Tape Primer is installed with a Scrub Pad. Seam Tape Primer is only to be used with RPI System products and installations. Specially formulated to meet low VOC restrictions which may be required in different states. Contractor should refer to local, state, and federal regulations to comply with and meet VOC limitations.

ROYAL EDGE EPDM UNCURED FLASHING

Uncured EPDM for use with EPDM applications. Uncured EDPM Flashing membrane without Tape should be installed using Splice Adhesive. Uncured EPDM Flashing with Tape (black tape), should be installed using Seam Tape Primer.

ROYAL EDGE EPDM PIPE BOOT

Multi-size EPDM pipe boot with/without tape.
Without tape, the pipe boot can be installed with Splice Adhesive. With tape, the pipe boot can be installed using Seam Tape Primer.

ROYAL EDGE EPDM LAP CAULK

Black Lap Caulk for use with Royal Edge EPDM installations. Apply to seam edge when using Splice Adhesive seams and uncured flashings. Use at top of Pipe Boots and Termination Bars.

ROYAL EDGE Water Cut-Off Mastic

Used as a caulking gasket in both EPDM and TPO installations. Apply between membrane and substrate before installing a Termination Bar, drain clamping ring, or pipe boot clamp. Application is the same for TPO and EPDM installations. For use with Royal Edge EPDM, Re-Flex EPDM, and Re-Flex TPO Systems.

ROYAL EDGE TERMINATION BAR

An aluminum bar used to mechanically attach the EPDM/TPO membrane to walls, fascias, and other areas where the membrane needs to be mechanically terminated (attached). The bar has a hole every six (6") inches. The appropriate substrate fastener should be installed in every hole. Each bar should be spaced 1/8 to 1/4 inch apart to allow for expansion. For Use with Royal Edge EPDM, Re-Flex EPDM, and Re-Flex TPO Systems.

RE-FLEX TPO PRODUCTS AND APPLICATIONS

ROYAL EDGE SOLVENT BASED TPO BONDING ADHESIVE:

An adhesive used to adhere the field membrane to recover/barrier boards, insulation, brick and block walls. The adhesive should be thoroughly stirred before using. Apply with a nine inch (9") solvent based roller cover.
Can be used with Re-Flex TPO/EPDM products and installations.
Adhesive is applied to both surfaces and allowed to "flash-off"(dry) before mating the surfaces together.
COVERAGE: Approximately 45 to 60 sq. ft. of finished roof per gallon. (porous substrates may require additional adhesive).

ROYAL EDGE WATER-BASED BONDING ADHESIVE:

Can be used with Royal Edge EPDM and Re-Flex TPO products and installations.
Adhesive can be installed "Wet" or "dry".

Wet Application: A heavy application is applied to substrate and the membrane is rolled into the wet adhesive and broomed with heavy pressure to transfer the wet adhesive to the membrane. DO NOT ALLOW THE ADHESIVE TO "SKIN OVER" BEFORE ROLLING AND BROOMING THE MEMBRANE INTO THE ADHESIVE. If the adhesive skins over, the adhesive will not transfer to the membrane resulting is loss of adhesion. IT IS RECOMMENDED TO USE SOLVENT BASED ADHESIVE FOR VERTICAL SURFACES. ALLOW 48 HOURS ADHESIVE CURE TIME. DO NOT INSTALL WET IF HIGH WIND EVENTS ARE EXPECTED BEFORE CURE TIME IS COMPLETE.

Dry Application: Apply adhesive to both surfaces (substrate and membrane), and allow to dry. The adhesive will appear clear when dry. Mate the surfaces together and apply heavy pressure with a push broom to ensure 100% adhesion.

RE-FLEX MEMBRANE CLEANER

Used to clean talc, dust, and other contaminants from TPO membrane prior to applying TPO Primer/Activator when using Re-Flex TPO Seam Tapes and Taped backed Flashings. Apply using clean cotton rags or synthetic sponge mop to area to be seamed or flashed. Change rags/clean sponge frequently.

RE-FLEX PRIMER/ACTIVATOR

A primer/activator used to prepare a surface to which a Re-Flex Seam Tape or Re-Flex Tape backed product will be adhered. Re-Flex Primer/Activator is applied with a Scrub Pad. Used with Re-Flex Seam Tape, Re-Flex Uncured EPDM with Tape Flashing, and Re-Flex TPO/EPDM Tape backed products.

RE-FLEX UNCURED FLASHING TAPE (white EPDM membrane with white tape)

White Uncured Epdm with a white Re-Flex Tape laminated to one side. To be installed on Re-Flex TPO and Re-Flex EPDM membranes as an t-joint patch, outside corner, radical bend patch, and pipe wrapping where a pipe boot cannot be installed. Use Re-Flex Primer/Activator to prepare surfaces.

RE-FLEX TPO PIPE BOOT with Tape

Multi-size TPO pipe boot with Re-Flex Seam Tape laminated to bottom. Install using Re-Flex Primer/Activator.

RE-FLEX TPO COVERTAPE

A white 6" wide TPO nonreinforced membrane with 6" Re-Flex Seam Tape laminated to on side. Installed on Re-Flex TPO membrane systems using Re-Flex Primer/Activator.

APPLICATION REVIEW

1 . INSULATION

A. Insulation joints are butted together with no gaps.
B. Correct fastener pattern and placement on boards (not between boards). Proper quantity of fasteners must be used.
C. 100% adhesion of the membrane to the substrate.

2 . FIELD SEAMS

A. SPLICE ADHESIVE should be visible past the leading edge of the field seams. (over-scrub) LAP CAULK should cover both upper and lower leading edge of the seam. DO NOT TROWEL THE LAP CAULK.
C. There are no wrinkles, voids, or fishmouths in any portion of the field seams.
D. All angle changes in the field seams are flashed over with one ply of six inch (6") wide by twelve inch (12") long UNCURED FLASHING.
E. When using SEAM TAPE products; SEAM TAPE should extend past leading edge of seam.

3. FLASHING DETAILS

A. No bridging occurring in the UNCURED FLASHING at any angle changes.
B. Two plys of UNCURED FLASHING are applied on all outside corners, pipes, (when not using a PIPE BOOT), and stacks.

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A. SPLICE ADHESIVE should be visible past the leading edge of the field seams. (over-scrub)
B. LAP CAULK should cover both upper and lower leading edge of the seam. DO NOT TROWEL THE LAP CAULK.
C. There are no wrinkles, voids, or fishmouths in any portion of the field seams.
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E. When using SEAM TAPE products; SEAM TAPE should extend past leading edge of seam.

3. FLASHING DETAILS

A. No bridging occurring in the UNCURED FLASHING at any angle changes.
B. Two plys of UNCURED FLASHING are applied on all outside corners, pipes, (when not using a PIPE
C. One ply of UNCURED FLASHING applied at all T-JOINTS, field seam angle changes, and over inside corner folds.
D. SPLICE ADHESIVE is visible past leading edge of flashing. (over-scrub)
E. LAP CAULK is properly applied to all flashing edges.

4 . TERMINATION BAR

A. Apply WATER CUT-OFF MASTIC behind membrane prior to installing the TERMINATION BAR.
B. Install fastener in every hole and maintain a 1/4 inch space beween bars.
C. TERMINATION BAR installed on parapet walls a minimum of twelve inches(12") above the roof deck.
D. LAP CAULK applied over top of TERMINATION BAR.

5. PENETRATIONS

A. UNCURED FLASHING is applied in two layers a minimum of eight inches (8") above the roof deck.
B. PIPE BOOTS have WATER CUT-OFF MASTIC applied between pipe and boot; are terminated with a Pipe Boot Clamp and are caulked with Lap Caulk.

6. DRAINS

A. Sufficient amount of WATER CUT-OFF MASTIC has been applied between the membrane and Clamping Ring. Clamping ring is secure and debris strainer properly installed.
B. Drain is lower than surrounding roof.

7. METAL EDGING

A. Metal Edge is prepped, (cleaned and sanded), and of sufficient gauge and adequately fastened to withstand wind uplift.
B. Properly stripped in using six inch (6") wide Cured membrane. Cover Strip should extend a minimum of two inches (2") beyond any fasteners.
C. Both sides of the Cover Strip are properly caulked.

8 . OVERALL APPEARANCE

A. Termination Bars are level.
B. Seam widths are uniform and completely rolled in.
C. All trash and debris is removed from job-site.
D. **OVERALL APPEARANCE IS VERY IMPORTANT**

HAVE A QUESTION ABOUT OUR PRODUCTS OR APPLICATIONS?

Call our Technical Department at 800-628-2957 or email rpiroyaledge.com
Office Hours 8:00AM-5:00PM Eastern Time