



RUBBERGARD™ EPDM

POCKET GUIDE



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General

This pocket guide has been specially designed to provide roofing contractors with basic tips and information for the installation of the RubberGard EPDM waterproofing system. It contains information that will be of use during the preparatory works prior to installation of the waterproofing system, practical tips for installation and a description of most of the standard Elevate details.

However, this document is not intended to substitute the RubberGard EPDM Technical Guidelines. When more complete or detailed product information is required, we still recommend referring to the Technical Guidelines.

For the latest details and information on our products, please visit www.HolcimElevate.com. Should you require additional information or any clarifications, please do not hesitate to contact the Elevate technical department.

1 General considerations

1.1 Tool list

Preparation of the site

- measuring tape (5 m and 50 m)
- chalk line
- scissors
- claw hammer
- stiff bristle broom
- squeegee

Cleaning the RubberGard EPDM membrane

- clean cotton rags
- cleaning agent – Elevate Splice Wash (in petrol can)

Mechanical fixation

- drilling machine with key
- drill bits (for concrete and steel)
- screwdriver
- tin snip

Field seams/details

- QuickScrubber™ (applicator + pad)
- QuickScrubber™ Plus (applicator + pad)
- small plastic bucket
- white marker
- silicone rubber roller (50 mm wide)
- QuickRoller
- caulking gun

Applying adhesive to the RubberGard EPDM membrane

- brushes (solvent resistant, 100 mm wide)
- paint rollers (solvent resistant, short hair, 225 mm wide)

Other

- mixer
- electrical lead
- rubber gloves
- tool box

1.2 Coverage rates of primer, adhesives and sealants

PRIMER	APPLICATION	COVERAGE RATES	
QuickPrime primer	QuickSeam Splice Tape (75 mm)	60	Lin.m./gallon
	QuickSeam Splice Tape (152 mm)	45	Lin.m./gallon
	QuickSeam RPF strip	60	Lin.m./gallon
	QuickSeam RMA strip	55	Lin.m./gallon
	QuickSeam Batten Cover (150 mm)	100	Lin.m./gallon
	QuickSeam Flashing (125 mm)	125	Lin.m./gallon
	QuickSeam SA Flashing/FormFlash	12	m ² /gallon
	QuickSeam Pipe Flashing	120	Pcs./gallon
	QuickSeam Walkway Pad	60	Pcs./gallon
ADHESIVES	APPLICATION (ALWAYS TWO SIDES)	COVERAGE RATES	
Bonding Adhesive	automated application	8	m ² /gallon
	manual application	5	m ² /gallon
Water Based	automated application	15	m ² /gallon
Bonding Adhesive	manual application	10	m ² /gallon
SEALANTS	APPLICATION	COVERAGE RATES	
Lap Sealant	Seam edge protection	7	Lin.m./tube
Water-Block Seal	Drains	2	Drains/tube
	Termination Bar	3	Lin.m./tube
Pourable Sealant	Complicated penetrations	1	Gal./volume 150x150x150

1.3 Material precautions and recommendations

- Keep adhesives, sealants and cleaning products away from ignition sources such as torches, flames, fire, sparks, etc. Do not smoke in the vicinity of these products. Store and use these products in well-ventilated areas.
- Deliver the Elevate products to the jobsite in their original sealed packaging and store them in a cool, dry place, away from direct sunlight.
- Mix the adhesives and QuickPrime primer before and during installation. Bring adhesives and QuickPrime primer back to room temperature before use if they have been exposed to temperatures lower than 10°C.
- Particular attention must be paid to adhesives and QuickPrime primer during hot weather. High temperatures can cause solvents to evaporate quickly. This can be avoided by protecting the materials by placing an insulation board underneath them and covering them with an offcut of EPDM membrane on particularly hot days.
- Never use a torch or hot air gun to speed up the drying time of adhesives or QuickPrime primer. Only natural drying is permitted. Heat guns may be used to mold QuickSeam FormFlash. Take care not to overheat the QuickSeam FormFlash.
- Protect the RubberGard EPDM membrane from any contact with hydrocarbons (fuel, gasoline, diesel...), mineral and vegetable oils, organic-based solvents, grease, animal fats and fresh bitumen membrane (less than 4 weeks old). Do not use damaged materials that do not allow optimal use.
- Do not allow the RubberGard EPDM membrane or its accessories to come into contact with steam or any heat source above 82°C.
- Fumes from adhesives, primers, cleaning products or sealants may penetrate into the building during installation through air intake openings in the roof. Please take the appropriate measures to avoid this.

1.4 Substrate requirements

CRITERIA	SPECIFIC DESCRIPTION
Smooth	<p>Free of sharp edges, fins. All abrasive surfaces that could damage the RubberGard EPDM membrane and flashing materials should be properly isolated with a leveling layer (protection mat, cover board or insulation board).</p> <p>NB: In order to ensure the durability of the RubberGard EPDM membrane, it is imperative that all contact with abrasive substrates such as rough concrete, cementitious screeds, plywood, timber boarding, wood wool slabs and galvanized steel is avoided.</p> <p>We recommend the use of a geotextile (min. 200 g/m²).</p>
Dry	<p>Clear any stagnant water, snow, frost and ice from the surface to be worked on.</p>
No voids	<p>All voids bigger than 5 mm wide must be properly filled with an acceptable fill material or overlaid with insulation.</p>
Clean	<p>Heavy dirt must be removed with a hard bristled brush.</p>

1.5 Refurbishment requirements

- Confirm the structural integrity of the existing deck:
 - Capacity of taking additional loads during installation.
 - Pull-out resistance.
 - Degradable supports should always be examined for their quality.
 - Repair and replace as required.
- Insulation boards need to be replaced if they are wet or degraded.
- The condition of the existing roofing membrane will determine the necessity for a separation layer. Follow the instructions mentioned in the table below.
- Flashing heights may be limited. Existing building details (i.e. doors, windows) may not allow for sufficient clearance to provide proper termination above the potential water level (min. 150 mm). Detailed consideration of this condition is critical to the integrity of the roofing system.

EXISTING MEMBRANE	SYSTEM		
	BALLASTED/ INVERTED	FULLY ADHERED	MECHANICALLY ATTACHED
Bituminous/gravel	2/3	3	2/3
Bituminous/chippings	2	1	2/3
Bituminous/smooth	1	1	1
Mastic asphalt	4	4	4
Coal tar	3	3	3
Others (e.g. single-ply)	4	4	4

- 1 Direct application, when the substrate meets the general requirements.
- 2 Roof deck requires the installation of a protection mat (geo-textile – min. 200 g/m²).
- 3 Roof deck requires the installation of an approved cover board or insulation board.
- 4 Consult Elevate's technical department.

1.6 Insulation requirements

THERMAL INSULATION			ROOFING SYSTEM			
INSULATION TYPE	TECHNICAL CHARACTERISTICS		BALLASTED	INVERTED	FULLY ADHERED	R.M.A./M.A.S. B.I.S.
	VOLUMIC MASS [KG/M ³]	COMPRESSIVE STRENGTH [KN/M ²]				
Expanded polystyrene	min. 20	min. 100 (10% compression)	1	NA	2	1/2
Extruded polystyrene	min. 33	min. 300	1	1	NA	NA
Polyurethane	min. 30	min. 100 (10% compression)	1	NA	1*	1
Polyisocyanurate	min. 30	min. 100 (10% compression)	1	NA	1*	1
Pperlite	155	min. 300 (10% compression)	1	NA	2	1
Mineral wool	165-200	Class III UEAtc	3	NA	2/3	3
Cellular glass	120	min. 600	4	NA	4	NA
Cork	min. 120	min. 100 (10% compression)	1	NA	1	1

1: Direct application.

1*: Polyurethane and Polyisocyanurate boards with glass fiber reinforced or bituminous impregnated felt facer are suitable for adhesion.

2: Acceptable overlayment or facing required (consult Elevate's technical department).

3: Only high density boards are acceptable.

4: Consult Elevate's technical department.

NA: Not applicable.

Polystyrene materials should not come in contact with adhesives, primers and cleaning products. The solvents used in these products are aggressive to polystyrene.

1.7 Attaching the insulation

All Systems

- Insulation must
- Insulation must be neatly fitted to all roof penetrations, projections, upstands, etc.
- Care should be taken not to install more insulation than can be covered with RubberGard EPDM membrane by the end of each working day or before the onset of inclement weather.

In case of a Fully Adhered System

- The distribution and minimum number of fastenings per insulation board must comply with the specifications of the insulation manufacturer.
- If the building owner, architect or installer chooses for the insulation to be fixed using hot bitumen, we recommend using bitumen with a melting point higher than 85°C and removing any excess bitumen that goes over the board joints prior to the installation of the RubberGard EPDM membrane. Insulation boards made from expanded and extruded polystyrene cannot be installed using the hot bitumen method. In case of a Mechanically Attached System
- The insulation attachment needs to be designed independently from the requirements for membrane securement.

In case of a Ballasted System

- Ballasted and inverted systems do not require the attachment of the insulation. When attachment of the insulation is specified, acceptable plastic insulation plates with lock and recess fastener heads shall be used. Expanded polystyrene shall not be pre-attached.

1.8 Fastener selection

The following table may assist you in selecting the appropriate roofing fastener for the mechanical attachment of the RubberGard EPDM membrane. Any substrate that is to provide mechanical attachment of the roofing system must provide a minimum pullout capacity per fastener, as indicated in the table below. If the substrate cannot provide the required minimum pullout value, contact us for an alternative system of fastener spacing in accordance with the actual pullout capacity.

APPLICATION	SUBSTRATE	MINIMUM STATIC PULLOUT [N]
Membrane	Steel 0.75 mm	1500
Membrane	Plywood (Min. 18 mm)	1500
Membrane	Timber (Min. 18 mm)	1500
Membrane	Concrete	3000
Membrane	Lightweight concrete	2400
Membrane	Aluminium (Min. 0.9 mm)	1300
Base Tie-in	Vertical concrete	900
Base Tie-in	Masonry	900

1.9 Climatic conditions

- RubberGard EPDM membranes have been applied at temperatures as low as -40°C without the use of any special equipment such as an air-inflated, heated tent. However, at very low temperatures there are a couple of points to consider in order to achieve quality installation.
- The RubberGard EPDM membrane usually requires 30 minutes to relax. Lower temperatures increase this relaxation time. Folds in the membrane will also take longer to disappear. In cold weather conditions, we therefore recommend to use 3.05 m or 5.08 m wide fold free panels for a fully adhered application and single fold (6.10 m and 9.15 m wide) panels for mechanical attachment.
- Certain precautions should be taken when applying adhesives, sealants or QuickPrime primer in cold weather conditions (below 10°C).
 - Start work with sealants, adhesives and QuickPrime primer at room temperatures (15-25°C). The use of insulated, heated boxes may be advantageous.
 - Complete a test splice to determine the flash off time.
 - Stop the operation or change the material when the product becomes too stiff.
 - Certain combinations of temperature and humidity may cause condensation to form on the surface of the product. If this occurs, stop the operation and wait for better ambient conditions before drying the surface and re-applying of a thin additional layer of adhesive.
- The installation and positioning of large RubberGard EPDM sheets may be difficult in windy conditions. Prevent that any wind gets under the membrane during installation. Use temporary ballast to keep the membrane in place until final securement to the substrate. Stop the installation during stormy conditions.

2 Installation

2.1 General recommendations

- Check the substrate for any defects or sharp objects.
- Inspect the packaging and RubberGard EPDM roll for any damage before and during installation.
- Position the RubberGard EPDM membrane as close to its final position as possible. The direction to unroll the sheet is indicated on the packaging.
- Place the RubberGard EPDM membrane on the substrate without stretching it. The panels can be moved sideways by floating and allowing air underneath.
- Allow ample material for splicing and tie-ins. Provide an extra portion of membrane (150 mm) at roof edges and wall terminations.
- Membranes must be allowed to relax for at least 30 minutes prior to splicing or attachment. In cold weather, the membrane relaxation time may increase. In this case, we recommend the use of smaller membranes in order to reduce the relaxation time and ensure a neat and easy application.
- Use temporary ballast where required.
- Make neat straight cuts using scissors, markers and chalk lines. This will ensure a neat and easy application.

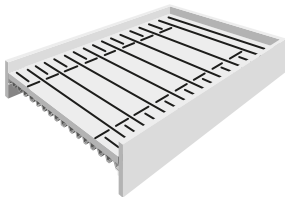
2.2 Fully Adhered System

- Use fold free panels of 3.05 m wide or 5.08 m wide.
- Stir the Bonding Adhesive before and during application. Properly mixed adhesive is essential for achieving system performance.
- Apply Bonding Adhesive to the two surfaces that will come into contact.
- Avoid globs or puddles of adhesive during application. These will increase the drying time and will cause the membrane to react due to the high concentration of solvents. This will create wrinkles when mating both surfaces.
- Care must be taken not to apply Bonding Adhesive over an area that is to be spliced to another sheet or strip. Otherwise, the seam area has to be cleaned and all Bonding Adhesive removed using Splice Wash.
- The use of a gluing apparatus will speed up production and increase coverage due to a better distribution of the adhesive.
- The coverage rate depends on the nature and roughness of the substrate, as well as the application method used. It can vary from 5 m²/gallon to 8 m²/gallon when using regular Bonding Adhesive. The coverage rate of the Water Based Bonding Adhesive can vary from 10 m²/gallon to 15 m²/gallon.

2.3 Reinforced Mechanically Attached (RMA) System

1. Installation of QuickSeam RMA strips

- QuickSeam RMA strips can be attached to the substrate using Elevate batten bars or approved plates. When using plates, automatic fastening equipment can provide for a timesaving installation.
- Consult the wind design calculation and layout plan for information about the position of the QuickSeam RMA strips and the size of the local wind zones.
- Make sure the QuickSeam RMA strips are positioned in straight lines.
- For mechanically attached systems over metal decks:
 - It is important that the QuickSeam RMA strips run as much as possible perpendicular to the direction of the flutes in the deck to avoid overloading the structure.
 - At perimeters, corners and in zones of higher wind pressure, the RubberGard EPDM membrane may be either fully adhered or mechanically attached using one or more additional QuickSeam RMA strips running parallel to the already installed ones.
 - Crossing t-strips shall be installed along the inside edge of the perimeter zone where the additional strips run perpendicular to the parapet.
 - Make sure that crossing QuickSeam RMA strips are in contact with each other to provide a continuous framework for attachment of the RubberGard EPDM membrane.



Onto metal deck

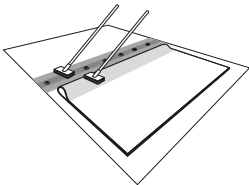
- When working onto a continuous support, an alternative layout may be used for practical reasons.



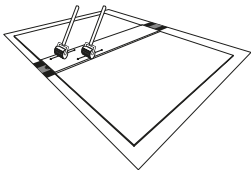
Onto continuous support

2. Membrane attachment

- Position the RubberGard EPDM membrane (see page 15, General recommendations).
- Fold back the membrane to expose QuickSeam RMA strip(s).
- Apply QuickPrime primer to the back of the membrane over the entire width of the QuickSeam RMA strip using the QuickScrubber Plus tool.



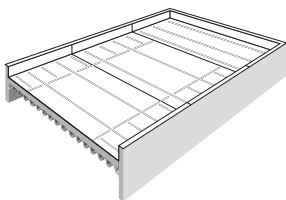
- Remove both release papers and roll the membrane onto the QuickSeam RMA strip.
- Roll the strip using the QuickRoller.



2.4 Mechanically Attached System

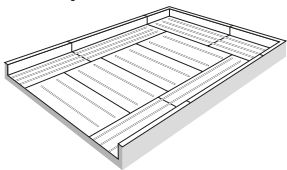
1. Membrane attachment

- The RubberGard EPDM membrane has to be attached to the substrate using Elevate batten bars running over the sheets.
- Consult the wind design calculation and layout plan for information about the position of the batten bars and the size of the local wind zones.
- Position the membrane panels as much as possible parallel to the direction of the batten bars.
- Make sure the batten bars are positioned in straight lines.
- For mechanically attached systems over metal decks:
 - It is important that the batten bars run as much as possible perpendicular to the direction of the flutes in the deck to avoid overloading the structure.
 - At perimeters, corners and in zones of higher wind pressure, the RubberGard EPDM membrane may be either fully adhered or mechanically attached using one or more additional bars running parallel to the already installed ones.
 - Crossing t-bars shall be installed along the inside edge of the perimeter zone where the additional bars run perpendicular to the parapet.
 - Stop crossing bars at 200-250 mm away from each other.



Onto metal deck

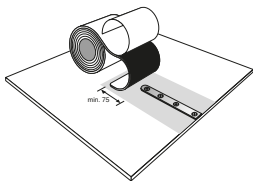
- When working onto a continuous support, an alternative layout may be used for practical reasons. Stop crossing bars at 200-250 mm away from each other.



Onto continuous support

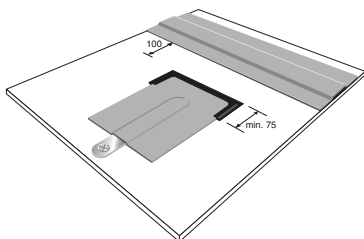
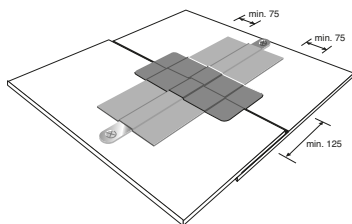
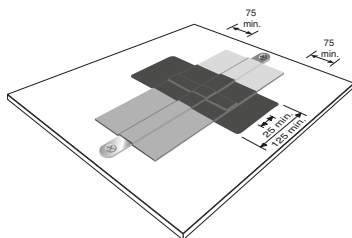
2. Installation of the QuickSeam Batten Cover Strip

- Apply QuickPrime primer a minimum of 100 mm at both sides of the batten bar using a QuickScrubber or QuickScrubber Plus stand-up tool.
- Install QuickSeam Batten Cover Strip (150 mm wide).



- Roll the entire QuickSeam Batten Cover Strip using a 50 mm wide rubber roller.

3. Special considerations

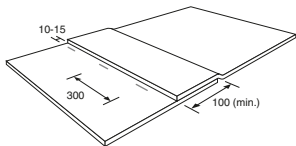


2.5 Splicing with 3" Splice Tape

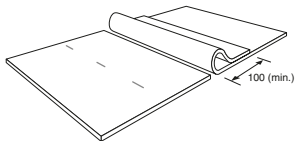
Tips:

- Stir the QuickPrime primer prior to pouring it into a small plastic bucket.
- Attach the QuickScrubber Plus pad onto the QuickScrubber Plus handle.
- Apply QuickPrime primer evenly and avoid puddling.
- In the event of rain or condensation, stop applying QuickPrime primer, do not close the seam and wait for better atmospheric conditions before applying a thin layer of QuickPrime primer.
- When misalignment occurs, cut the tape and make an overlap of minimum 25 mm with the end of the installed tape.
- Any fishmouths or wrinkles must be cut away and repaired with a piece of QuickSeam FormFlash.

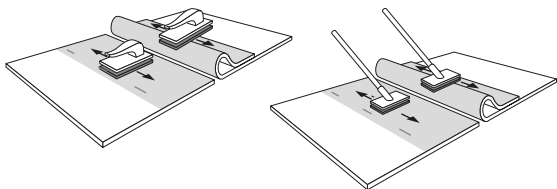
1. Position and mark the sheets



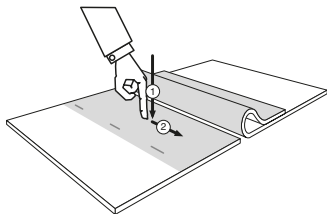
2. Fold back the lap edge



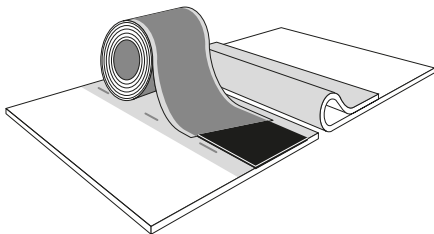
3. Apply QuickPrime primer



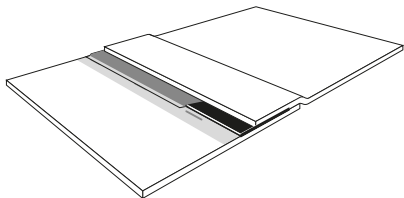
4. Check for dryness (touch-push test)



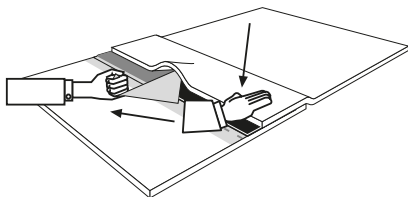
5. Install and roll the tape



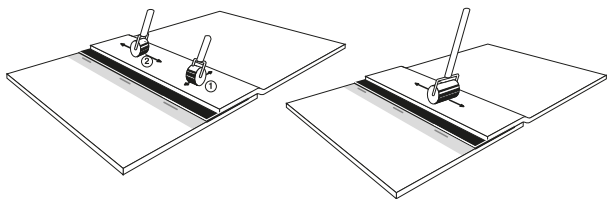
6. Check tape alignment and trim back where necessary



7. Remove paper backing

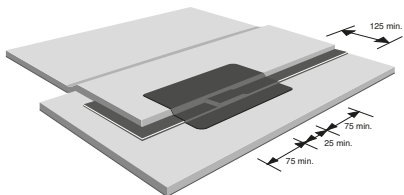


8. Roll the seam

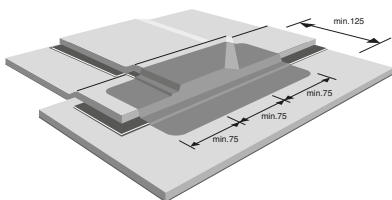


9. Special considerations

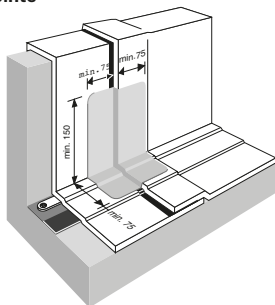
End of tape



T-joints



Angle joints



2.6 Splicing with 6" Splice Tape (BIS):

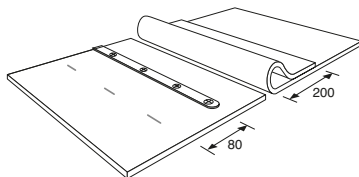
Tips:

- Stir the QuickPrime primer prior to pouring it into a small plastic bucket.
- Attach the QuickScrubber Plus pad onto the handle.
- Apply QuickPrime primer evenly and avoid puddling.
- Stop priming in case of condensation or rain, do not close the seam, wait for better conditions and re-apply a thin layer of QuickPrime primer.
- When misalignment occurs, cut the tape and make an overlap of minimum 25 mm with the end of the installed tape.
- Any fishmouths or wrinkles that occur should be cut away and repaired with a piece of QuickSeam FormFlash.

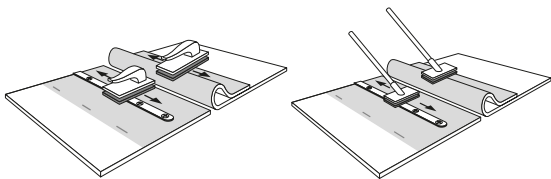
1. **Position the membranes with an overlap of min. 200 mm**

2. **Install Batten strip**

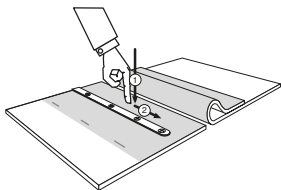
- Mark the position of the tape.
- Install the batten strip 80 mm inwards from the marks.



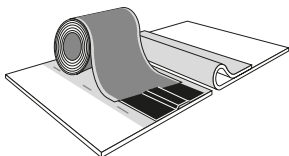
3. Apply QuickPrime primer



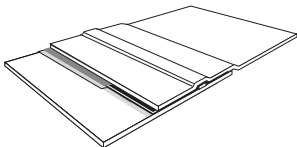
4. Check for dryness (touch-push test)



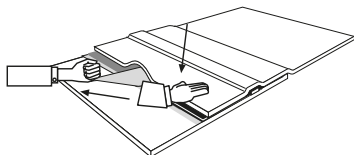
5. Install 6" Splice Tape



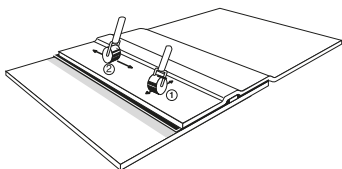
6. Check tape alignment and trim back where necessary



7. Remove paper backing



8. Roll the seam (using 50 mm wide rubber roller)

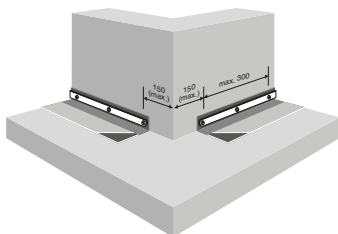
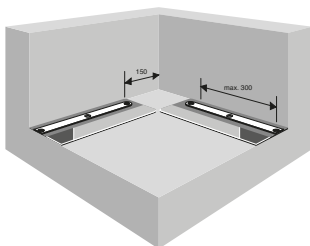
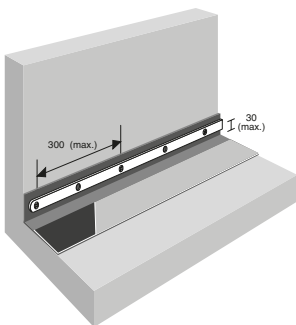


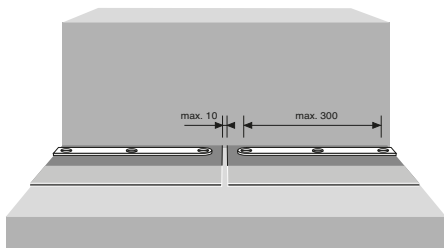
2.7 Base tie-ins

A. General

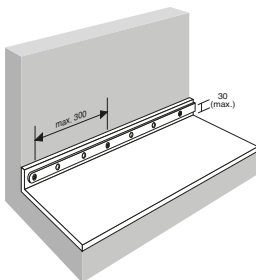
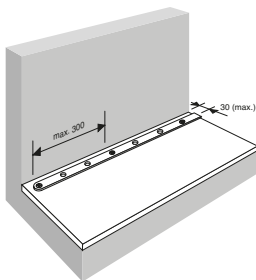
Required	<ul style="list-style-type: none">• At all locations where the membrane passes through an angle change greater than 15%.• Any mechanically attached system, independent of the surface of the roof, requires the installation of a mechanical base tie-in detail.
Not required	<ul style="list-style-type: none">• Round pipe penetrations in diameter less than 125 mm.• Square penetrations less than 100 mm x 100 mm square.• For small, residential type applications (< 100 m²), in ballasted and fully adhered systems, the mechanically attached base tie-in detail can be replaced by an alternative detail:• Ballasted: adhere the membrane to the horizontal for about 20 cm and install concrete tiles, 50 cm wide. Membrane is fully adhered to the upstand and properly terminated at the top.<ul style="list-style-type: none">- Fully adhered: membrane is fully adhered to both upstand and substrate and properly terminated at the top of the upstand.

B. Base tie-in with QSRPF strip





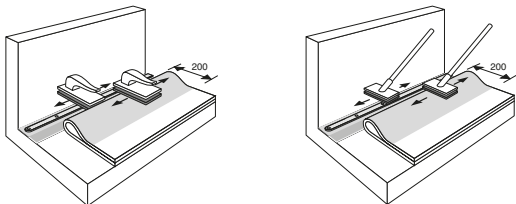
C. Base tie-in with batten bars



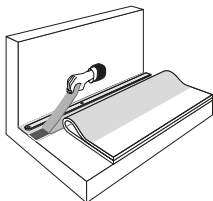
2.8 Wall flashing

A. Flashing over QSRPF strip

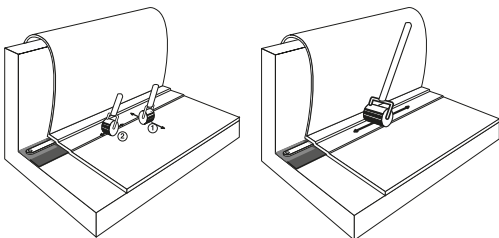
1. Apply QuickPrime primer



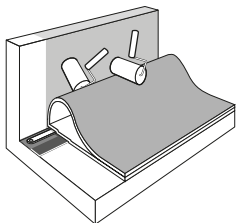
2. Check for dryness and remove paper



3. Mate EPDM to the strip and roll



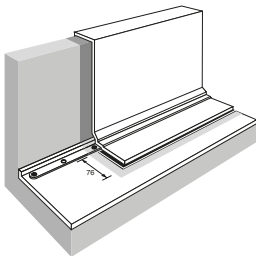
4. Apply Bonding Adhesive



B. Flashing over batten bars

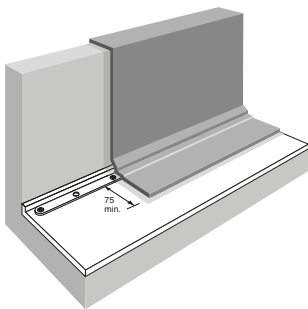
Use EPDM/SA Flashing strips for long and straight curbs.
Use QuickSeam FormFlash for curved walls and small skylights.

With EPDM membrane strips



- The EPDM strip should cover the wall to the height required, plus 100 mm for the seam.
- First install 3" Splice Tape before applying Bonding Adhesive.
- Position the tape as close as possible to the angle change.
- The tape may not cover the batten strip or turn up against the upstand.
- After adhering the EPDM strip to the wall, trim back to expose the release paper (approx. 10 mm).

With QuickSeam FormFlash/SA Flashing strips

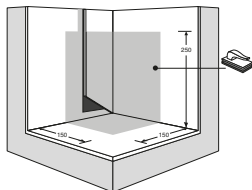


- QuickSeam FormFlash/SA Flashing should cover the wall to the height required, plus 75 mm for the seam.
- Measure the length of the piece to extend the detail at each outside corner a minimum of 75 mm.
- Work the QuickSeam FormFlash/SA Flashing tight into the angle change and avoid bridging.
- Do not roll heavily over the batten strip.

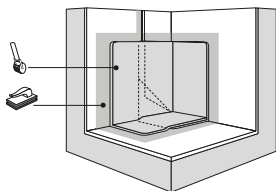
2.9 Inside corners

On low upstands, the RubberGard EPDM membrane can be folded into a pig-ear and adhered to the upstand.

- When flashing higher upstands the EPDM is cut so that a vertical seam can be made.



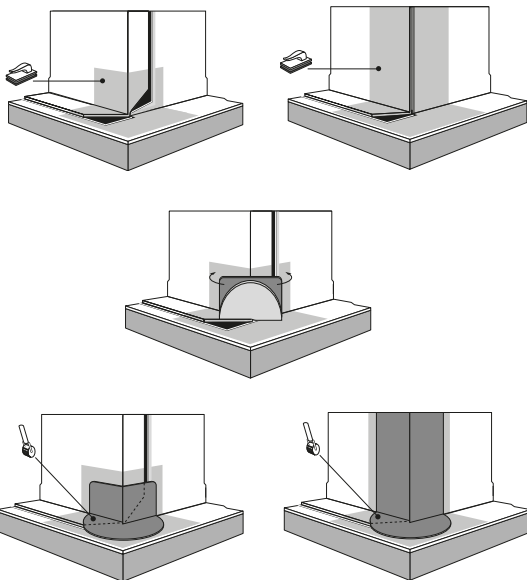
- Use 2 identical pieces of QuickSeam FormFlash of 229 mm x 300 mm (rounded corners) to cover the pinhole.



Tips:

- Make sure the QuickPrime primer is dry before installing the QuickSeam FormFlash piece.
- Position the first piece 10 mm out from the upstand and work tightly into the angle change.
- Apply QuickPrime primer to the area to be covered by the pig-ear.
- Use the second piece to cover the pig-ear fold after reapplying QuickPrime primer to the designated area.
- Seal all exposed cut edges with Lap Sealant.

2.10 Outside corners



Tips:

- Piece should be 229 mm wide and long enough to cover the necessary height plus min. 75 mm for the base overlap.
- Use fresh QuickSeam FormFlash.
- Make sure the QuickPrime primer is dry prior to installation of the QuickSeam FormFlash piece.
- Apply heat if necessary prior to working the corner in tightly.
- Do not overstretch the piece when working it out onto the horizontal surface.
- Seal all exposed cut edges with Lap Sealant.

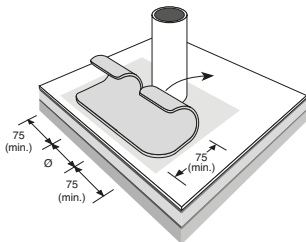
2.11 Circular penetrations

1. Installation base flashing

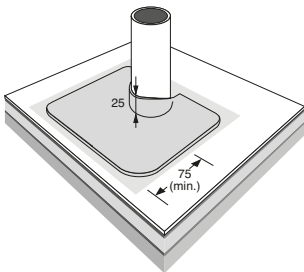
Use two identical pieces of QuickSeam FormFlash

- Width = 150 mm + pipe diameter
- Length = 112.5 mm + pipe diameter/2

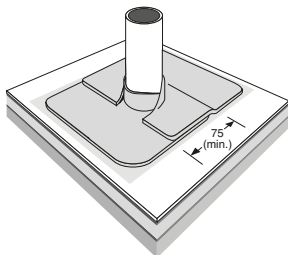
Apply QuickPrime primer in the designated area and apply the first piece.



Make a horseshoe shape cut ensuring a 25 mm overlap up the pipe.



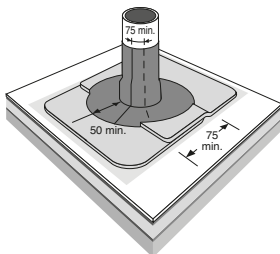
Apply QuickPrime primer to the overlapping area (75 mm) and repeat procedure.



2. Installation of the pipe wrap

Dimensions of the QuickSeam FormFlash piece should be:

- Width = min. height required + 50 mm
- Length = pipe circumference + 75 mm



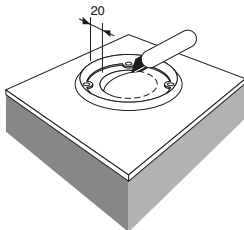
Tips:

- Do not forget to apply QuickPrime primer onto the overlap areas.
- Seal all exposed cut edges with Lap Sealant.

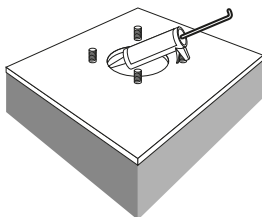
2.12 Drains

A. With clamping ring

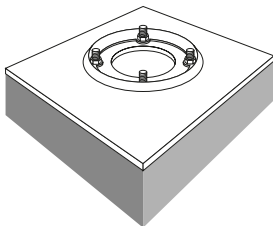
1. Cut a hole, but allow 20 mm of membrane past the bolts



2. Apply Water-Block Seal below the membrane



3. Install clamping ring



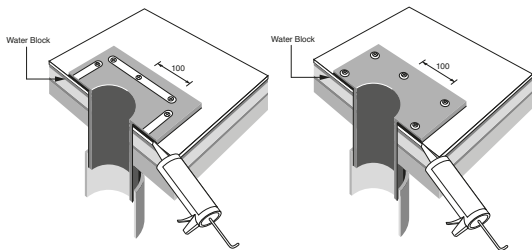
Tip:

- Do not forget Water-Block Seal.

B. With insert piece

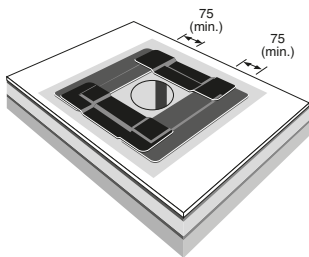
1. Drainage outlet flanges must be secured to the deck

- using plates for hard insert pieces
- using bars for soft insert pieces



2. Apply Water-Block Seal between EPDM and insert piece

3. Apply QuickPrime primer and flash in using QuickSeam FormFlash/SA Flashing

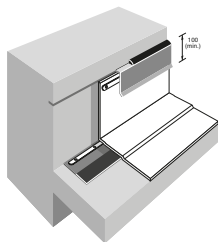


Tip:

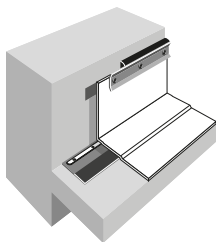
- Do not forget Water-Block Seal.

2.13 Roof edge and wall terminations

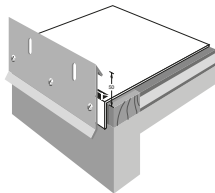
A. Counterflashing



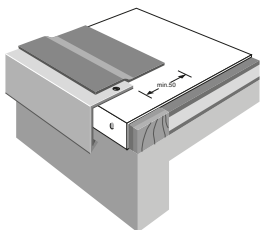
B. Termination Bar



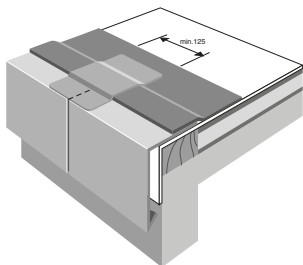
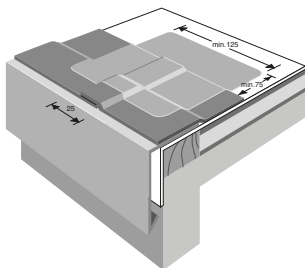
C. Drain Bar



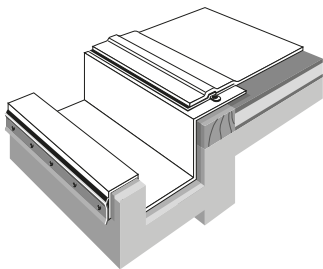
D. Metal edge profile with QuickSeam Flashing



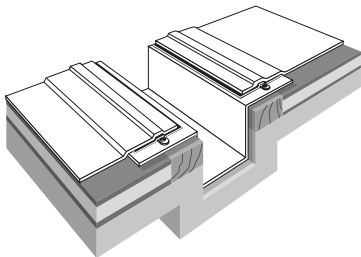
Special considerations:



E. External gutter



F. Internal gutter

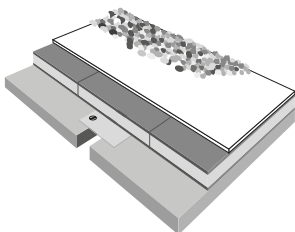


Tips:

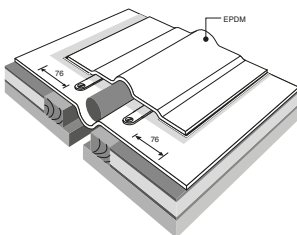
- The flashing membrane needs to be fully adhered onto the substrate over the full extent of the gutter, using Bonding Adhesive.
- Use Splice Adhesive when adhering to metal.
- Avoid seams in the gutter as much as possible.
- Do not forget to install angle reinforcement patches.
- Install a base tie-in detail, using QuickSeam™ RPFS, inside the gutter when:
 - Width of gutter > 600 mm, or
 - External gutter is not airtight and exposed to wind uplift from underneath.

2.14 Expansion joints

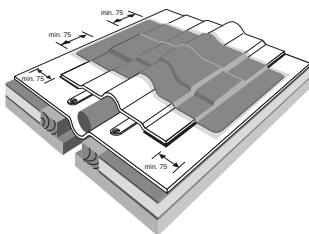
A. Ballasted/Inverted System



B. All other systems



C. Special consideration at EPDM seams



2.15 Temporary closure

- Provide a watertight condition of the completed section of the roof at the end of each working day.
- Mark the free edge of the uncompleted section on the substrate.
- Fold the membrane back a min. of 200 mm.
- Use a chalkline to mark a straight line on the substrate 100 mm within the first marks.
- Apply a bead of Lap Sealant over the chalk line.
- Let the membrane fall freely onto the Lap Sealant.
- Put the seam under compression with temporary ballast.

3 Inspection checklist

The following inspection checklist has been developed to assist you in achieving a quality installation. Although it is not the intention to list all items, this checklist includes common repairs that are critical to the performance of the RubberGard EPDM roofing system. While performing your inspection, we recommend to note all items that require a correction on a roof sketch for future reference and to mark them on the membrane using a white marker. All repairs need to be attended to as soon as possible.

General

- Make sure that there are no leaks.
- Inspect and repair damage done by other trades.
- Make sure all debris, fasteners, etc. have been removed from the roof.
- Replace wet or damaged insulation.
- Clean-up spilled adhesive, primer or sealant.
- Make sure that all Elevate materials are properly stored on the roof deck.
- Make sure that the roof is temporarily closed prior to leaving the site.

3.1 Membrane installation

Ballasted System

- No wrinkles in the membrane visible above the ballast.
- Insulation is not damaged (in loading areas).
- Ballast coverage is adequate.
- Ballast retainer installed at drains/scuppers.
- No walkway pads within 3 m of roof edge.

Fully Adhered Systems

- Appropriate fasteners and plates were used for insulation attachment.
- Correct fastening pattern.
- No gaps in insulation greater than 5 mm.
- Proper adhesion (no loose areas).
- No wrinkles in membrane.

RMA/MAS/BIS Systems

- Appropriate fasteners used.
- Appropriate batten or strip layout (especially in perimeter area).
- Correct fastening rate.
- EPDM pads at end of batten run ends.
- Battens and/or strips properly positioned and secured.
- 6" QuickSeam Splice Tape properly installed.
- Lap Sealant applied to ends of QuickSeam Batten Cover Strip.
- QuickSeamFormFlash patches properly installed at T-joints and intersections with field splices.

3.2 Splicing with QuickSeam Splice Tape

- No fishmouths or wrinkles in the seam.
- Tape is exposed between 5 and 15 mm.
- Minimum 100 mm overlap.
- QuickPrime primer is correctly applied.
- Tape to tape overlap is minimum 25 mm.
- QuickSeam FormFlash has been applied over all tape to tape overlap edges.
- All t-joint and vertical joint patches have been installed.
- Lap Sealant has been applied to all cut edges when using reinforced membrane.

3.3 Base tie-ins

Base tie-ins: QSRPF Strip

- Correct use of Elevate batten bars or plates.
- No polymer batten bars used on concrete, masonry or brickwork.
- Perimeter fastening strip lays flat.
- No bridging at angle change.
- Center of battens is installed within 30 mm of angle change.
- RPF strip fastened 300 mm o.c. maximum.
- Field membrane is properly adhered.
- Backing paper is removed from RPF strip.

Base tie-ins: Batten Bars

- No bridging at angle change.
- No polymer batten bars used on concrete, masonry or brick-work.
- Center of battens is installed within 30 mm of angle change.
- Batten is fastened 300 mm o.c. maximum.
- Battens overlap using common fastener.
- Minimum 100 mm overlap of the EPDM Strip onto field membrane.

3.4 Corners

Inside corners

- Pig-ear is properly closed.
- No bridging or fishmouths.

Outside corners

- Corners are not popped open.
- There are no fishmouths.
- There is no bridging of the QuickSeam FormFlash in the angle change.
- QuickSeam FormFlash is not overstretched, punctured or cut.
- All exposed cut edges are sealed with Lap Sealant.

3.5 Circular penetrations

QuickSeam Pipe Flashing

- Boot is cut to the correct size for the pipe.
- Old flashings are removed from the pipe.
- Connection with field or factory seams running under the pipe boot flange is covered with a QuickSeam FormFlash patch.
- Clamping ring is straight and firmly closed.
- Lap sealant extends past upper edge of QuickSeam Pipe Flashing.

Pipe Dressing: QuickSeam FormFlash

- There is no bridging of QuickSeam FormFlash at the bottom of the pipe.
- Old flashings are removed from the pipe.
- Both basic bottom pieces overlap 75 mm and have a minimum 25 mm connection with the pipe.
- The wrap piece has a connection of 50 mm at the base.
- All exposed cut edges are sealed with Lap Sealant.

Penetration Pockets

- Flange of pitch pocket is fastened 100 mm o.c.
- There is 25 mm clearance between penetration and the side of the pocket.
- Metal corners of the flange are rounded.
- QuickSeam FormFlash is turned down into the penetration pocket.
- There is a minimum 50 mm depth of Pourable Sealer.

3.6 Drains

Clamping system

- No field seams under clamping ring.
- Slope is less than 1/3.
- Water-Block Seal between membrane and flange.
- Bolts are tightened properly.
- Membrane is cut properly at inside of drain.
- Drain basket is installed.

Insert piece

- No field seams running under insert piece.
- Insert piece is properly fastened with batten bars or plates.
- QuickSeam FormFlash/SA Flashing is installed properly with insert piece overlap of min. 75 mm.
- Water-Block Seal between insert piece and membrane.
- Exposed cut edges of QuickSeam FormFlash are sealed with Lap Sealant.

3.7 Roof edge and wall termination

Counterflashing

- EPDM membrane is fixed with batten bar 150 mm o.c.
- Counterflashing joints and laps are sealed.

Termination Bar

- Water-Block Seal behind bar between substrate and membrane.
- Termination bar fastened 300 mm o.c. max.
- Termination bar not bend around corners.
- Termination bar sealed at top and at both sides of vertical sections.
- Termination bar spaced 5 mm between sections.
- Termination bar fastened max. 25 mm from each end.
- Termination bar cut at expansion joints.

Drain Bar

- Water-Block Seal between substrate and membrane behind bar.
- Drain bar extends min. 50 mm above the membrane.
- Drain bar fastened 150 mm o.c. maximum.
- Drain bar not bend around corners.
- Drain bar spaced 5 mm between sections.
- Drain bar fastened max. 25 mm from each end.

Metal Edge Profile

- Horizontal flange of profile is sufficiently lapped with QuickSeam™ Flashing.
- Flange of metal profile is properly fixed, 100 mm o.c. max.
- All joints in metal edge are properly sealed or flashed.

3.8 Others

Walkways

- Walkways are installed as required at all access points to the roof.
- QuickSeam™ Walkway pads are not used within 3 m of roof perimeter on ballasted roofs.
- QuickSeam Walkway pads are not placed over field seams.
- QuickSeam Walkway pads are firmly installed with QuickPrime primer.
- Geotextile or additional EPDM layer is installed underneath concrete pavers.

4 Repairs

4.1 Membrane repair

Applicability

- Repair of cuts and punctures in the RubberGard EPDM membrane, contamination of the membrane with hazardous products.

Instructions

- Mark the damaged area with a white crayon as soon as identified during the installation.
- Cuts and punctures in the RubberGard EPDM membrane should be repaired with cured membrane. The repair must extend a minimum of 75 mm beyond the perimeters of the damaged area in all directions. Pinholes in the membrane may be repaired with a piece of QuickSeam FormFlash.
- Round all corners of the repair piece.
- Use of Splice Tape as a sole repair material is not allowed.
- When repairing a membrane that has been in service for some time, it is necessary to prepare the surface to be spliced thoroughly prior to starting the splicing operation. First, scrub the surface with a brush and warm soapy water, rinse with clean water and dry the surface with clean cotton rags. Finally, scrub the area with QuickPrime primer. Additional cleaning may be required at heavily contaminated areas.
- Membranes which have been in contact with hazardous chemical discharges such as fresh bitumen, petroleum products, greases, oils, animal fats, coal tar based or plastic roof cements need to be inspected for damage. Remove immediately all excess of the contamination materials and replace the damaged area with a new piece of membrane.

4.2 Seam repair

1. Repair of wrinkles and loose edges in EPDM field splices

- Use scissors to cut the wrinkles away, laying them flat. Adhere the loose parts of the membrane with QuickPrime primer and use small silicone rubber roller to roll the edges flat.
- Pull apart the loose edges of the splice (if applicable). Re-apply QuickPrime primer and mate the two areas.
- Clean the area of the membrane to receive the strip in flashing extending past the width of the flashing to be applied. If membrane has been exposed so that dirt has accumulated, remove contaminants by scrubbing with a scrub brush and soapy water prior to cleaning with Splice Wash.
- Apply QuickPrime primer to the affected area using the QuickScrubber pad and repair with a patch of QuickSeam FormFlash. Seal all exposed cut edges with Lap Sealant.

2. Repair of splices where mechanical attachment is not per specifications

- If the batten bar is too far inside the seam area, a batten shall be installed behind the seam area on the top sheet.
 - clean the membrane with Splice Wash.
 - apply QuickPrime primer to the affected area. Install QuickSeam Batten Cover over the batten bar.
- If the batten bar is too close to the exposed edge of the seam area, a QuickSeam Flashing shall be installed along the edge of the top sheet, over the exposed seam edge.
 - clean the membrane with Splice Wash.
 - apply QuickPrime primer to the affected area. Install QuickSeam Flashing so that 75 mm of the Cover Strip are in contact with the lower sheet.

Notes

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ELEVATE

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HolcimElevate.com

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