



Installation Manual

RubberTop FR Roofing System



RUBBERTOP FR EPDM ROOFING SYSTEM

INSTALLATION INSTRUCTIONS

Overview

RubberTop FR is a high performance waterproofing system which does not compromise on quality, sustainability or durability.

- “ Simple and fast to install with a minimum of accessories for the DIY customer
- “ The system comprises of jointing and flashing tapes, seam and substrate adhesives, together with termination bar and roof edge trims.

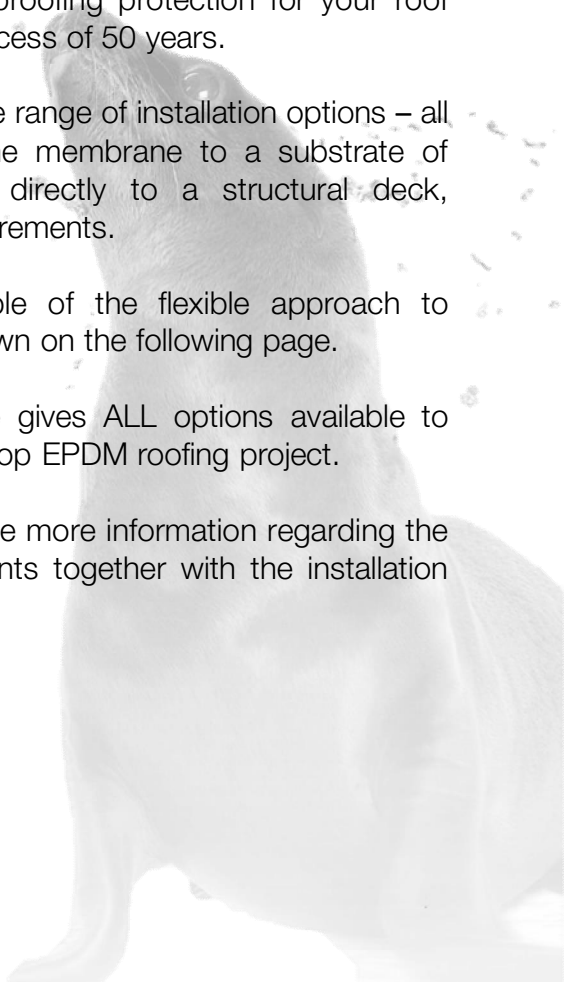
RubberTop can be provided in a variety of measurements to fit most low slope roofs (contact your local supplier for further information). After installation, you can expect superior, long term waterproofing protection for your roof with a life expectancy in excess of 50 years.

This brochure will cover the range of installation options – all are based on bonding the membrane to a substrate of compatible insulation or directly to a structural deck, depending on project requirements.

A selection summary table of the flexible approach to installation methods is shown on the following page.

The above selection table gives ALL options available to install an effective RubberTop EPDM roofing project.

The following pages provide more information regarding the system and the components together with the installation instructions.



INSTALLATION METHODS

Site Panel Joining Method	Seam Tape				
Substrate Bonding	P150 (PUR) Adhesive	OR	Water Based Adhesive		
Upstand Bonding	Contact Adhesive 5000				
Terminations	Chase detail with cover flashing (by others)	OR	Under cope detail (membrane bonded across full width of wall head)	OR	Membrane mechanically fixed with full Termination Bar detail and sealants
Base Tie In	Flat Bar fixed at change of angle (or base) and counter flashed with field membrane.	OR	Flat Bar fixed at change of angle (or base and counter flashed with Flashing Tape.	OR	Reinforced Perimeter Strip adequately secured with either seam plates or flat bar beneath RubberTop field membrane at change of angle or base.
Corners	Field membrane dressed or folded (internal) AND Counterflashed with Flashing Tape and sealed with Sealant 5590				
Outlets	Clamped ring outlets, mechanically fixed and sealed with Sealant 5590.	OR	Appropriate outlet mechanically attached to field membrane and sealed with Flashing Tape.		
Penetrations	SealEco Pipe Boot (cut to size)	OR	Flashing Tape		



MEMBRANE FEATURES & HANDLING

Membrane Information

- EPDM rubber membrane available in roll form or fabricated panels.
- 100% UV resistant
- High elasticity, up to 300% elongation
- Root resistant (suitable for green roofs)
- Weatherproof in temperatures from -40°C to +150°C
- Contains no dangerous substances
- Can meet UK Building Regulations for fire for exposed bonded applications*
- Suitable for new buildings or refurbishments
- Simple and quick to install, even for DIY
- Minimal maintenance required
- Life expectancy of up to 50 years+

RubberTop FR Membrane Characteristics

Thickness: 1.2mm Grade: Fire Retardant
Weight: 1.5kg/m²

Material Handling and Storage

Check the material fully before installation. Store in dark, dry conditions if not installing immediately. If supplied wrapped, the packaging should not be removed before installation. Materials should be installed within 12 months of purchase.

General Information

Before starting installation, ensure the roof area is swept clean and ready to receive the membrane and that all required safety precautions have been taken.

Suggested Tools

- Scissors, knife or cutting tool
- Silicone pressure roller & Brass penny roller
- Mastic gun(s)
- Paintbrush, paint roller(s) short fleece & paint tray
- Chalk or crayon marker
- Soft brush/broom
- Measuring tape
- Adhesive spreader



INSTALLATION METHODS

Preparation

RubberTop FR can be used over most common substrates such as timber, or certain insulation products with sufficient compressive and inter-laminar strength and with a suitable facing (check with insulation manufacturer for advice). The substrate should be clean, dry and free of any debris and grease. Brush the roof surface to remove any loose particles. Any loose or protruding nails or screws should be either fully inserted or removed before laying the membrane. The roof deck should be of sufficient strength and quality to support the RubberTop membrane and insulation system.

Check that the membrane is placed evenly over the entire roof surface and that it covers the edges of the roof by a minimum of 150mm. The membrane should be allowed to relax for a minimum of 30 minutes before continuing. Note: this may require longer time during colder weather.

Fold back the membrane by approximately 50% to expose the underlying deck surface.

Substrate Bonding (directly to suitable insulation or roof deck)

There are two different adhesives for bonding the membrane to the substrate.

- RubberTop Water Based Adhesive should be applied using a roller. A coverage rate of 3-4m²/litre should be expected, depending upon the substrate. Water Based Adhesive has an open time of 5 to 35 minutes, depending upon ambient weather conditions. The roof sheet should be laid into the adhesive during this time. If an open time of less than 5 minutes is allowed, the adhesive is likely to be too wet. The membrane should be rolled into the adhesive and pressed in with a squeegee or soft broom. Water Based Adhesive should not be installed in temperatures below 5°C.

(Note: If the membrane is to be site jointed to another roll or panel, it is important to keep the overlapping areas of the joint free from this adhesive)

OR

- P150 Adhesive is a polyurethane adhesive system and can be applied by means of a paint roller and tray to the roof substrate, or by pouring small amounts directly onto the roof substrate and spreading with a roller or small notched adhesive spreader.

(Note: If the membrane is to be site jointed to another roll or panel, it is important to keep the overlapping areas of the joint free from this adhesive)

PANEL OR ROLL SEAM JOINTING

Ensure the membrane is dry, clean and free from debris or grease.

Where two EPDM panels are to be joined, position them so that they overlap with a minimum of 75mm. With chalk or crayon, mark approx 8-10mm beyond the overlapped sheet edge as a guide for applying Tape Primer. Apply Tape Primer to both surfaces using a paintbrush or small roller and let them become dry to the touch. Place the Seam Tape on to the primed membrane on the roof surface and roll the paper with a seam roller. Remove a piece of the release paper from the Seam Tape. Allow the top layer of membrane to fall onto the Seam Tape. Gradually pull away the release paper at an angle of 45° from the Seam Tape and sweep the tape with your hand as you release. Using a Seam Roller, roll the seam at right angles to the seam tape to ensure adhesion.



BASE TIE IN AT UPSTAND (OR CHANGE OF ANGLE)

At all upstands and change of angles, the RubberTop FR membrane is required to be mechanically attached and counterflashed using either a separate flashing of RubberTop FR membrane or a Flashing Strip.

There are two methods to achieve an effective mechanically attached base tie in. Either method may be used with any of the Substrate Bonding Methods described above. Both require adequate fixation of a Flat Bar at maximum 300mm centres to the upstand base securing the RubberTop FR membrane in the process.

- **Base Tie In using RubberTop FR Membrane as Counter flashing**

Return the RubberTop FR field membrane a minimum of 100mm vertically up the upstand face. Trap and secure the membrane with a Flat Bar adequately secured at 300mm centres. Counterflash by bonding a separate piece of RubberTop FR membrane to the upstand and return the counter flashing piece of membrane onto the horizontal roof area to weatherproof the fixing area. The seam joint of the counter flashing piece of membrane with the main field sheet membrane may be made by using 75mm Seam Tape.

- **Base Tie In using Flashing Tape as Counter Flashing**

In some circumstances it may be desirable to return the RubberTop FR field membrane without cutting vertically up the upstand by bonding. In this case, the Polymer Bar is positioned at the base of the upstand on the vertical and adequately secured at maximum 300mm centres. A 150mm Flashing Strip is used to counterflash the Polymer Bar.

- **Base Tie in using Reinforced Perimeter Strip (RPS)**

This method of base tie in avoids puncturing the RubberTop membrane at the fixing point by adequately securing the RPS using Seam Plates or Polymer Bar at maximum 300mm centres through the reinforced part of the RPS where there is no seam tape present. The RPS seam tape is bonded to the primed underside of the RubberTop field sheet along the length of the upstand base or change in angle line by removing the release paper at a 45° angle and rolling with a seam roller in a similar way to a standard seam joint.



COUNTER FLASHING UPSTANDS

At the vertical inside face of upstands, RubberTop FR membrane should be used to protect the surface areas. RubberTop FR membrane should be bonded to this surface using Contact Adhesive 5000. Attachment requires adequate securement at the base of the upstand (see above Base Tie In at Upstands).

Primer should be used on any porous surfaces prior to installation. Alternatively, the surface can be finished with a suitable timber covering adequately secured.

Apply Contact Adhesive 5000 both to the underside of the folded membrane and to the surface to be covered. Allow both surfaces to dry until the adhesive no longer sticks to the finger when touched. Work the membrane by hand from the base of the upstand vertically and gradually into the adhesive. Being a Contact Adhesive, the membrane will immediately grab the upstand and no further positioning will be possible. Roll the membrane into the adhesive using a silicone roller. Any small pockets of air can be worked out at this stage by sweeping with a soft brush. Be careful not to attempt to tackle too large an upstand flashing area at one time. We recommend maximum length of around 5 metres until the installer has adequate skill in handling longer flashing pieces. If necessary, the attempted length can be reduced and the resulting upstand membrane joint flashed with a flashing strip. Equally we recommend working with no more than 1m maximum membrane upstand height at a time.

Above this height will require the horizontal Polymer Bar secured adequately at maximum 300mm centres and counter flashed. Similar to the base tie process described above.

TERMINATIONS

RubberTop FR membrane can be finished to a vertical wall surface by use of either a chase detail, under coping detail or Termination Bar detail.

- **Chase Detail**

This requires the upstand membrane flashing to be returned into a pre-cut chase in brickwork or concrete of min 30mm depth. Contact Adhesive 5000 may be used to initially secure the membrane deep into the chase. The chase is then pointed with Sealant 5590. A lead or metal cover flashing (by others) is often used to further protect this detail.

- **Under Coping Detail**

The membrane is brought up the upstand and bonded as described above. It is continued horizontally across the wall head to the outside edge. The wall head should be flat, smooth and suitable for bonding with Contact Adhesive 5000 using the method described above.

At the outside edge of the wall head and between the membrane and the substrate, a thick bead of Sealant 5590 should be applied. The detail is finished with the appropriate coping.

- **Termination Bar Detail**

At the termination point on the vertical wall surface, pull back the membrane and apply a bead of Sealant 5590, 5-10mm from the top edge of the membrane. Replace the membrane and attach the Termination Bar with a lip 5-10mm from the edge of the membrane to ensure the sealant is compressed. Fix the Termination Bar at 150mm centres. Trim excess membrane and apply another bead of Sealant 5590 along the lip of the Termination Bar.

INTERNAL CORNERS

RubberTop FR membrane should always be folded at the corners (internal) and never cut. Corner details should be protected 50mm in all directions using Flashing tape.

Ensure the membrane is positioned into the base of the upstand on both sides.



Fig 1



Fig 2



Fig 3



Fig 4

EXTERNAL CORNERS

Apply in the same way as the internal corners, noting again the application of Flashing Strip. The pig ear can be folded to the outer side of the upstand, after which Edge Sealant should be applied to the membrane edges.

SKYLIGHTS

Position the membrane tight up against the base of one side of the skylight and fold the edge back. Take a straight edge along both sides of the skylight and over onto the folded back membrane. Transfer the dimensions of the skylight onto the folded piece of membrane and cut from the fold to the edge of the membrane. Mark 75mm out from the base of the perimeter of the skylight to prepare for the adhesive.

- Apply Tape Primer between the skylight base and up to the 75mm line. Apply Contact Adhesive 5000 onto the skylight surround upstand and the offcut membrane used to dress the upstand (leaving 75mm free of adhesive where membrane will be adhered with seam tape. Prime this area with Tape Primer). Flash external corners with Flashing strip.

OR

- Flash the entire skylight upstand with Flashing Tape following the guiding principles previously discussed.

OUTLETS / DRAINS

Determine the location of the outlet or drain, mark it with a crayon or chalk, then cut a hole where the outlet is to be inserted. RubberTop outlets or drains can be flashed using RubberTop Flashing Tape or clamping ring drains may be used.

Apply primer to the flat area around the drain ensuring a minimum of 10mm beyond the perimeter. Allow the Tape Primer to dry to the touch. Install the Outlet by mechanically fixing it to the substrate and apply RubberTop Flashing Strip over the drain and onto the membrane surface. The Flashing Strip should overlap the edges of the drain by at least 50mm in all directions.

When using a clamping ring outlet, apply the Sealant 5590, then mechanically fix the clamping ring. Cut off any excess membrane.



PIPE PENETRATIONS

Apply RubberTop Primer to the roof membrane around the penetration where the Pipe Boot will be located, ensuring a minimum of 10mm beyond the perimeter. Cut the Pipe Boot to the required pipe diameter and position over the penetration.

Carefully peel back the release paper from the base of the Pipe Boot and press into position on the roof surface. Apply pressure to the base of the Pipe Boot with a seam roller to ensure good adhesion.

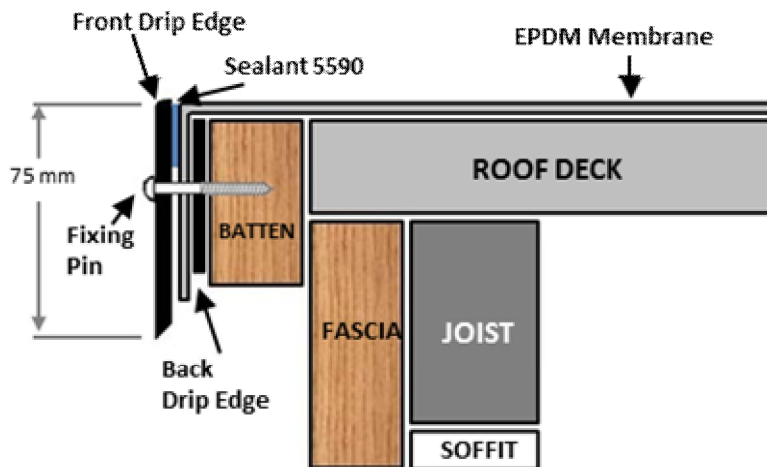


QUICKTRIM® ROOF TRIM

Where there is no upstand around the roof edge, e.g. a garage, the Quicktrim system should be installed.

Preparation

Before fixing the edge of the RubberTop membrane, fix a planed timber batten (approximate size 25mm x 50mm) around the roof perimeter, level with the top of the roof deck. We recommend painting the bottom of the batten for better appearance and to protect the timber.



Drip Edge Trim - Back

The Drip Edge trim should be fixed onto the batten adjacent to the gutter using the flat headed nails provided. Make sure that the curved top section of the back edge trim is level, or just below the top of the batten. Apply the waterproof membrane over the roof and cut off any surplus at the bottom edge of the batten, or the bottom edge of the back drip edge trim.

Cut and fold membrane flat around the roof corners when installing thin single ply membranes. When using thick felt membranes avoid overlaps, keep the corner flat and waterproof. This allows the corner trim to fit snugly against the corner of the roof.

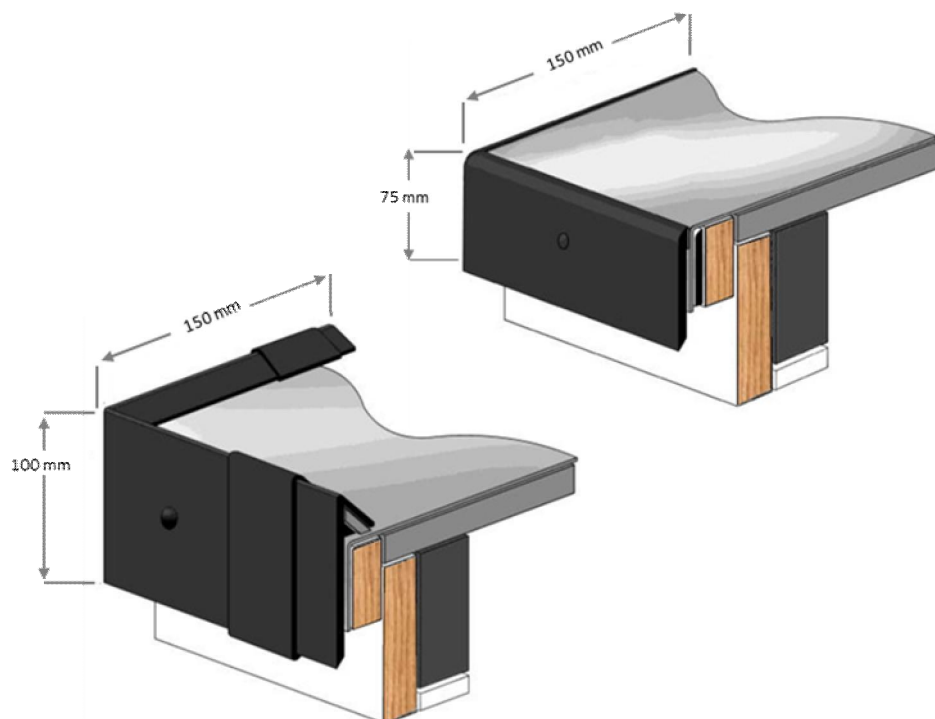
Quicktrim - Drip Edge Trim Corner Installation

Corners should be installed onto the flat roof before installing the lengths of the trim. They are available in both external and internal designs.

Extend the membrane over the edge of the roof to fully cover the back edge detail approximately 80mm. Cut and seal or fold the membrane around the roof edge (with no steps or bulges) and slide the trim down onto the membrane compressing the foam seal onto the roof.

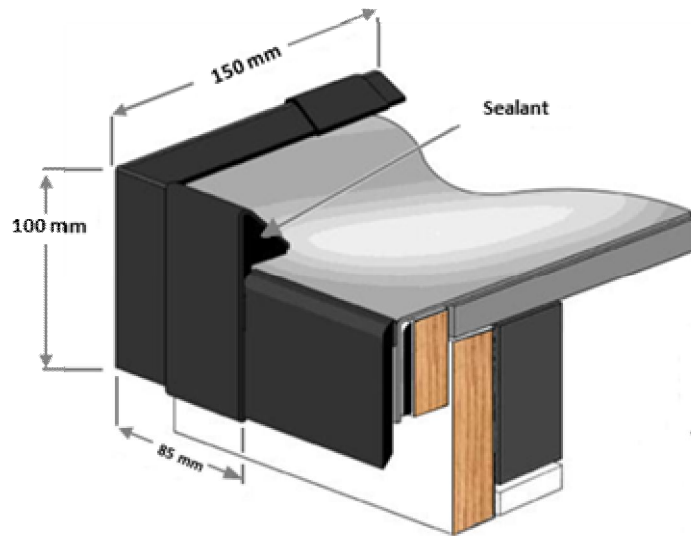
Drill a 2mm pilot hole into the back trim section of the Drip Edge trim through the holes in the front section and gently hammer the fixings through the pre-drilled holes. Do not over tighten the fixing nails against the trim face.

Cut back the check kerb corner that meets the Drip Edge trim by 65mm and install the corner onto the roof as described above and fix into place using the flat headed brass coloured nail through the fixing hole on the cut down section. Fix the black headed nail through the hole on the check kerb side and then fix the clip as described above. Apply Sealant 5590 to the end of the check kerb corner flush with the clip edge.



Check Kerb Trim

Butt the first trim up to a corner section, compressing both seals together. On very cold days allow a minimum expansion gap of 5mm between the trims. Then gently hammer the fixing pins through the centre of fixing slots. Apply a bead of sealant to one side of the joint to hold the Check Kerb joint clip in place. Apply the joint clip by hooking it under the bottom edge of the trim and at the same time snap the top of the clip over the top section of the Check Kerb.

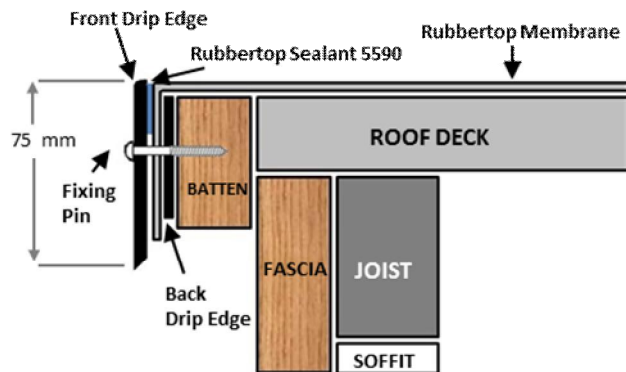
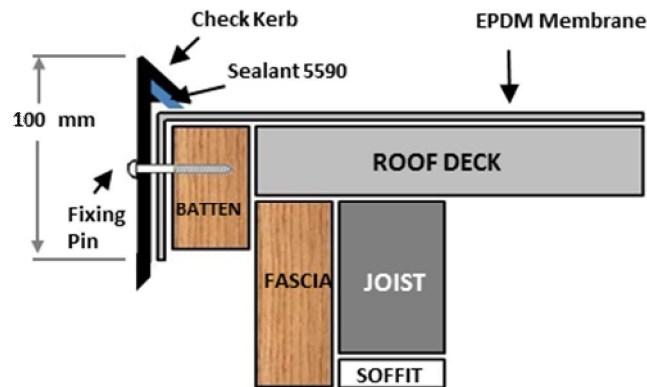


Drip Edge Gutter Trim

Fix the front Drip Edge trim over the membrane by firmly pushing down on the trim to compress the seal and at the same time drill a 2mm pilot hole through the front trim slot, into the back trim. Now pin through both trims using the fixing provided. The top section of the trim should now be level or just below the level of the roof to allow the water to pass over it and into the gutter. Finally fix the joint clips.

Fixing the clips over trim joints

Apply a bead of Sealant 5590 to one side of the joint. Apply the joint clip by hooking it under the bottom edge of the trim and at the same time snap the top of the clip over the top section of the trims and over the sealant. This will keep the clip in place and allow for the thermal movement behind the clip.






Quicktrim Notes




- É Use a sharp saw to cut the trims down to size.
- É Drill trims with a 5mm long slot if further fixings are required.
- É Always make sure two rubber seals are between joints.
- É To insert a trim between corners measure between the corners of trims and deduct 10mm.
- É Slight marks on the trims can be removed using CIF type cream cleaner and soft cloth.
- É On very cold days, allow a minimum expansion gap of 5mm between the trims.




		
Seam Tape	Cover Tape	Flashing Tape
Roll Size: 75mm x 30.5m	Roll Size: 152mm x 30.5m	Roll Size: 229mm x 15.25m




		
Flashing Tape	Reinforced Perimeter Strip	P150 Adhesive
Roll Size: 305mm x 15.25m	Roll Size: 152mm x 30.5m	Packed: 10kg/Can Coverage: 28m ² /can




		
Tape Primer	Water Based Adhesive	Contact Adhesive 5000
Packed: 3.8L Can Coverage: 5-6m ² /Can	Packed: 5 Litre Coverage: 3.5m ² /Can	Packed: 6 Litre Can Coverage: 9m ² /Can

		
Sealant 5590	Edge Sealant	Cleaning Wash
Packed: 310ml tube Coverage: 8-12LM	Packed: 305ml tube Coverage: 8-12LM	Packed: 1 Litre Bottle 5 Litre Can Coverage: 4-5m ² /litre

		
Flat Bar	Termination Bar (Lip)	Silicone Seam Roller
Packed: 2m length	Packed: 2m length	Packed: Each

		
Brass Seam Roller	Pipe Boot	Quicktrim Kerb Edge Trim
Packed: Each	Packed: Each	Packed: 2.5m length

		
Quicktim Gutter Edge Trim	Quicktrim External Corners	Corner Patch
Packed: 2.5m length	Packed: Each	Packed: Each

		
Sealant Gun	Paint Brushes	PE Outlet
Packed: Each	Packed: 6/pack	Packed: Each





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