



# **ROOFTEC** **POLY-GUARD** **LIQUID ROOFING** **SYSTEM**

## **APPLICATION** **GUIDE**



# ROOFTEC POLY-GUARD LIQUID ROOFING SYSTEM

**ROOFTEC POLY-GUARD LIQUID ROOFING SYSTEM** IS A ONE COMPONENT POLYURETHANE LIQUID MEMBRANE WITH THIXOTROPIC ATTRIBUTES FOR SEAMLESS WATERPROOFING. POLY-GUARD CAN BE APPLIED OVER ALMOST ANY SUBSTRATE WITH OR WITHOUT THE NEED FOR A REINFORCEMENT MAT. A TRUE ONE COMPONENT LIQUID MEMBRANE WHICH ERADICATES THE NEED FOR MIXING OF CATALYSTS OR THICKENING AGENTS DUE TO ITS THIXOTROPIC PROPERTIES, WHICH REDUCES BOTH MATERIAL AND LABOUR COSTS, ENSURING A CONSISTENT PRODUCT ON EVERY APPLICATION.

## A. EQUIPMENT

### TOOLS

- Mixing equipment; 1KW slow speed drill, 400-500rpm and suitably sized mixing vessel
- Sausage gun
- Notches trowel, roller, squeegee or brush

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Protective overalls
- Protective gloves
- Safety glasses
- Protective mask

## B. WEATHER CONDITIONS

### APPLICATION TEMPERATURE RANGE

Avoid dew point conditions during application. Relative humidity must be no more than 95% and substrate and ambient temperature must be at least 5°C above measured dew point temperatures. Do not apply under rain or snow.

If temperature is above 35°C, the following guidelines are suggested:

1. Store materials in a cool environment, avoiding exposure to direct sunlight.
2. Keep application equipment cool and dry.
3. Try to avoid application during the hottest hours of the day.

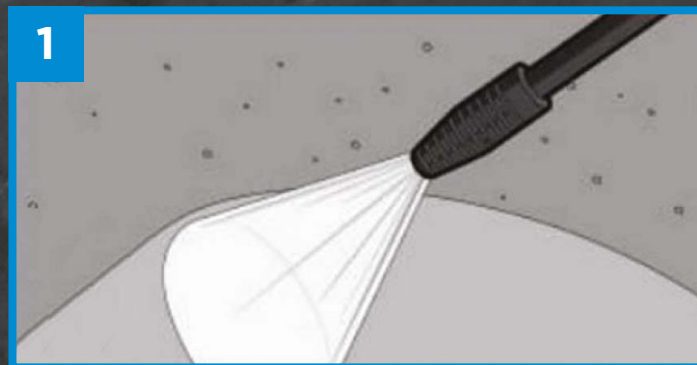
## C. SYSTEM PRODUCTS

1. **Primer:** Rooftec Poly-Guard Same Day Primer or Rooftec Poly-Guard Next Day Primer.
2. **Sealant:** Rooftec Poly-Guard PU Joint Sealant.
3. **Additional Materials:** Self-adhesive butyl tape, reinforcement mat.
4. **System:** Main Membrane: Rooftec Poly-Guard Liquid Membrane: Rooftec Poly-Guard Top Coat.
5. Rooftec Poly-Guard Top Coat.



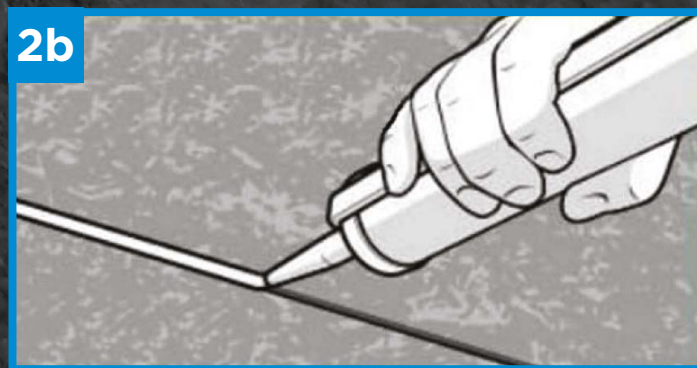
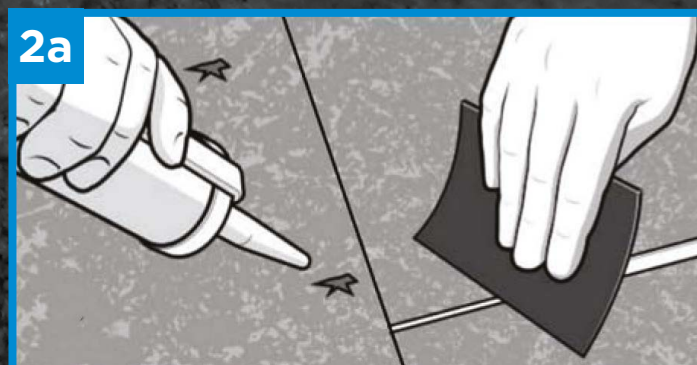
# STEP 1: SURFACE PREPARATION AND CLEANING

- 1 Ensure that all surfaces are clean, dry and free from any debris, dust and dirt. If overlaying existing sheets you **MUST** pressure wash and scrub the surface to remove any built up dirt. This will ensure a clean surface and a good bond.
- 2 If chemicals are used during the cleaning phase ensure that the roof is washed thoroughly with clean water and completely dried prior to the application of **ANY** product. This is to avoid chemical reaction or adhesion issues with the product.
- 3 Some surfaces may need to be carefully cleaned with a solvent and wiped down. It is necessary for the solvent to evaporate fully to leave a dry, clean surface.
- 4 All surface must be **COMPLETELY DRY** before any application takes place.



# STEP 2: APPLICATION OF ROOFTEC POLY-GUARD PU JOINT SEALANT

- 1 Ensure that any small holes, splits or other blemishes on the substrate are filled with PU joint sealant. Tool any excess sealant with a small spreading knife.
- 2 Fill any screw or nail holes with PU joint sealant, again tooling any excess material flat.
- 3 Apply PU joint sealant to any gaps in the sheets. This is essential as when the surface is primed any gaps will allow the primer to run through. The correct primer coverage will not be achieved if this happens.
- 4 For any larger voids and joints you will need to apply a backing rod or closed cell polyethylene foam as it is important to ensure the correct width to depth ratio.
- 5 Create a fillet with PU joint sealant on all 90° degree angles, penetrations and at changes of direction e.g. upstands, sky lights, pipe work and detailing. Once this is done, tool the sealant to a 45° angle.



## NOTE:

Rooftec Poly-Guard PU Joint Sealant is an essential part of the system and must be used on all joints, penetrations and upstands.

**DO NOT USE SILICONE WITH THIS SYSTEM**



# STEP 3: APPLICATION OF PRIMERS

WHILE SOME SUBSTRATES MIGHT NOT APPEAR TO REQUIRE A PRIMER WE RECOMMEND THAT YOU USE ONE FOR **ALL** SUBSTRATES TO HELP CONSOLIDATE THE SURFACE AND PROMOTE ADHESION.

For more information please contact our technical team.

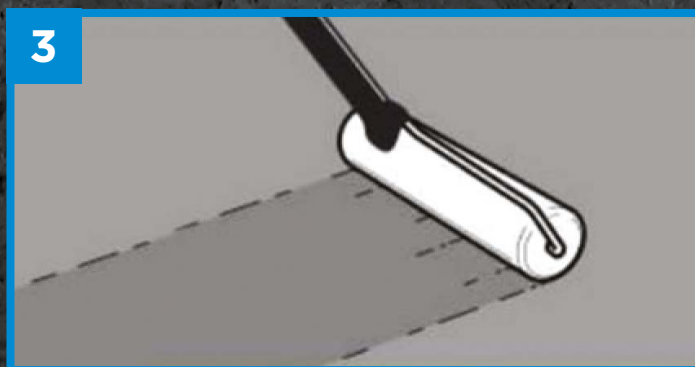
## ROOFTEC POLY-GUARD SAME DAY PRIMER

- 1 Apply the primer to the substrate using a brush or roller at a consumption rate of 200g/m<sup>2</sup> (primer consumption may increase subject to substrates porosity). The primer **MUST** be applied evenly, ensuring that it does not pond in low areas. If this occurs the primer **WILL NOT** polymerise adequately and will react to the Poly-Guard membrane.
- 2 Allow same day primer to cure for between 2-4 hours.
- 3 The primer **MUST** be touch dry before the application of the Poly-Guard membrane.
- 4 If the liquid membrane is applied whilst the primer is still tacky a reaction will cause the product **NOT** to bond and react with the un-polymerised primer.
- 5 You must apply the liquid membrane to the **SAME DAY** primer on the **SAME DAY**! If you exceed the open time you must re-apply the primer and allow it to dry before continuing, paying attention to the points above.
- 6 If it rains or the roof gets wet before the primer has cured you **MUST** dry the roof and re-apply the primer.



## ROOFTEC POLY-GUARD NEXT DAY PRIMER

- 1 Apply the primer to the substrate using a brush or roller at a consumption rate of 200g/m<sup>2</sup> (primer consumption may increase subject to substrates porosity). The primer **MUST** be applied evenly, ensuring that it does not pond in low areas. If this occurs the primer **WILL NOT** polymerise adequately and will react to the Poly-Guard membrane.
- 2 Allow next day primer to cure for 24 hours (dependent on temperature).
- 3 The primer **MUST** be touch dry before the application of any topcoat (please note that at low temperatures the primer will take longer to cure. Please ensure it is fully polymerised).
- 4 If the liquid membrane is applied before the 24 hour curing time a reaction will cause the product **NOT** to bond and react with the un-polymerised primer (although the primer may appear to be dry it will not have fully polymerised).
- 5 If you exceed the 5-day open time you must reapply the primer and allow it to dry before continuing, paying attention to the points above.
- 6 The primer will be resistant to rain after 4 hours.

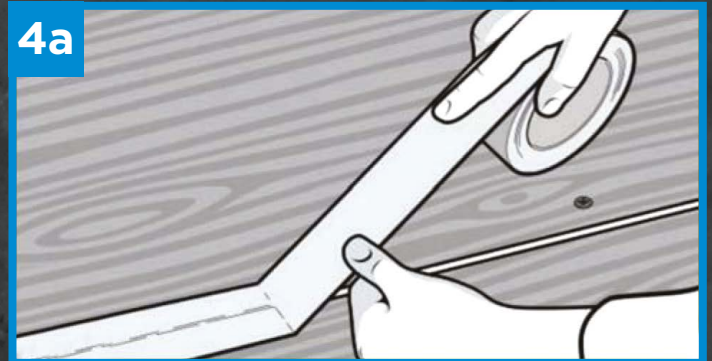




# STEP 4: APPLICATION OF REINFORCEMENT MATERIALS AND SELF-ADHESIVE BUTYL TAPE

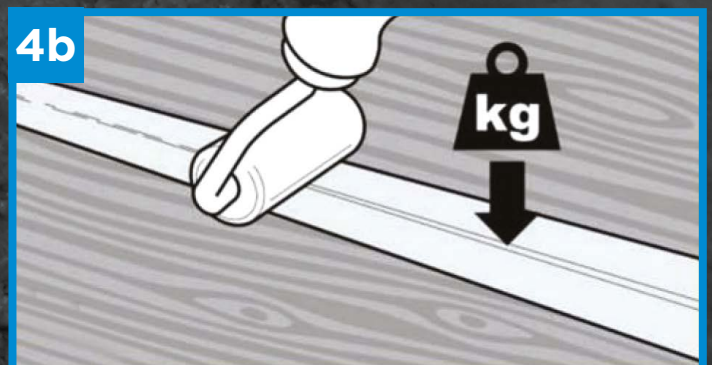
## STEP 4A: APPLICATION OF SELF-ADHESIVE BUTYL TAPE

- 1 Once the primer has cured ensure that the surface is clean and dry. Reinforce **ALL** joints and laps with self-adhesive butyl tape.



## STEP 4B: APPLICATION OF ROOFTEC POLY-GUARD REINFORCEMENT MAT WET ON WET

- 1 Apply a coat of Rooftec Poly-Guard liquid membrane at a rate of  $1\text{kg/m}^2$ . Do this over an area approximately as wide as the reinforcement mat you intend to use. This will form the embedment layer.
- 2 While the Poly-Guard liquid membrane is still wet roll out the reinforcement mat and embed it into the coat of membrane. Make sure that it lays perfectly flat. Use of a roller is necessary but you must ensure that any kinks or lifts in the material are worked out.
- 3 Immediately apply a second coat of Rooftec Poly-Guard liquid membrane of approximately  $1\text{kg/m}^2$  over the top to encapsulate the reinforced mat.



## STEP 4.C: UPSTANDS AND DETAILING

- 1 Any upstands, corners, detail penetrations or changes of direction, previously sealed in Step 2, have the option to use reinforcement matting for wet on wet application or self-adhesive butyl tape.





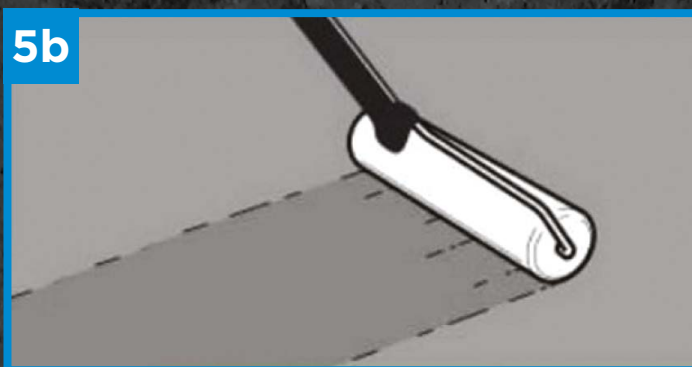
# STEP 5: APPLICATION OF LIQUID MEMBRANE

## STEP 5A: UPSTANDS AND DETAILING

- 1 Any upstands, corners, detail, penetrations or changes of direction previously sealed (see Step 2), a coat of Rooftec Poly-Guard liquid membrane can then be applied without the risk of running and doesn't require a thickening agent.

## STEP 5B: APPLICATION OF ROOFTEC POLY-GUARD LIQUID ROOFING MEMBRANE ON SOUND SUBSTRATES

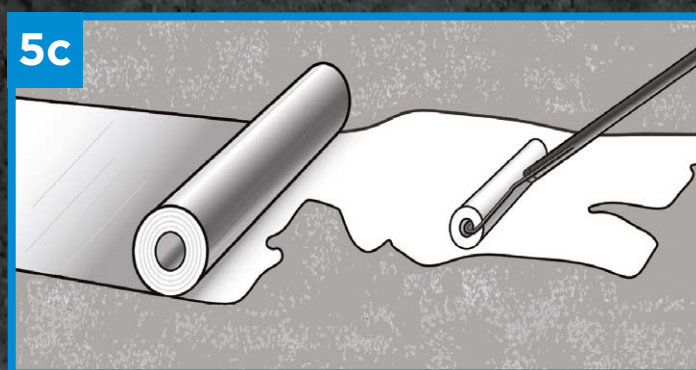
- 1 Once the primer has cured, ensure that the surface is clean and dry and **ALL** joints and laps have been reinforced. Only then can you apply the liquid membrane.
- 2 Apply Rooftec Poly-Guard liquid roofing membrane with a roller or brush at a minimum consumption rate of  $1.5\text{--}2\text{kg/m}^2$ . This will give a thickness of approximately  $1.2\text{--}1.3\text{mm}$ .
- 3 It is very important to have the right amount of product per  $\text{m}^2$ . To ensure this, measure out and grid your area. Then you can apply the appropriate coverage rate.
- 4 The product will be touch dry in 2-3 hours (dependent on the temperature), however it should not be trafficked for 48 hours (please consult the data sheet for more information).
- 5 Avoid applying Rooftec Poly-Guard liquid roofing membrane late in the afternoon as dew point can affect unpolymerised material.



## STEP 5C: APPLICATION OF ROOFTEC POLY-GUARD LIQUID ROOFING MEMBRANE OVER BITUMEN, ASPHALT AND UNSOUND SUBSTRATES

Felt and bitumen substrates must be reinforced using the reinforcement mat wet on wet. Once the primer has cured (see Step 3 for more information) ensure that the surface is completely dry before starting this application.

- 1 Apply a coat of Rooftec Poly-Guard liquid membrane at a rate of  $1\text{kg/m}^2$ . Do this over an area approximately as wide as the reinforcement mat you intend to use. This will form the embedment layer.
- 2 While the liquid membrane is still wet roll out the reinforcement mat and embed it into the coat of the membrane. Make sure that it lays perfectly flat. Use a roller is necessary but you must ensure that any kinks or lifts in the material are worked out.
- 3 Immediately apply a second coat of the liquid membrane of approximately  $1\text{kg/m}^2$  over the top to encapsulate the reinforced mat.





# STEP 6: APPLICATION OF TOP COAT

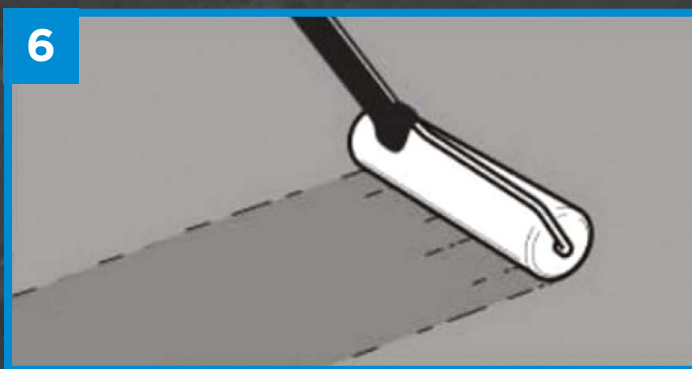
**ALLOW A MINIMUM OF 24 HOURS AND A MAXIMUM OF 72 HOURS CURE TIME BEFORE APPLYING THE ROOFTEC POLY-GUARD TOP COAT**

**If using Rooftec Poly-Guard Top Coat as a UV protection coat:**

- Apply the Top Coat with a roller at a rate of 200g/m<sup>2</sup>, ensuring a consistent finish throughout.

**If using Rooftec Poly-Guard Top Coat as an anti-slip coating:**

- Apply the first top coat at a rate of 200g/m<sup>2</sup> (depending on the size of the quartz) over the entire surface and cover sparingly with 0.2-0.4 grade kiln-dried sand or fine quartz.
- Leave for 24 hours and brush any excess away.
- Apply an encapsulating coat of 200g/m<sup>2</sup> of the Top Coat.



## FREQUENTLY ASKED QUESTIONS

**Q: I APPLIED ROOFTEC POLY-GUARD SAME DAY PRIMER YESTERDAY AFTERNOON. CAN I LAY THE ROOFTEC POLY-GUARD LIQUID ROOFING MEMBRANE THIS MORNING?**

**A:** No. The Same Day Primer has an open time of 12 hours maximum. If it is left longer than that then the surface will need to be cleaned and dried and a fresh coat of Same Day Primer applied.

**Q: I APPLIED THE ROOFTEC POLY-GUARD NEXT DAY PRIMER THIS MORNING. CAN I LAY THE LIQUID ROOFING MEMBRANE THIS AFTERNOON?**

**A:** No. The Next Day Primer needs to be left overnight **AND** for a minimum of 12-24 hours, even if it feels dry before then. After this it has an open time of up to 5 days during which you can apply the liquid membrane. If the primer gets wet before you apply the liquid membrane (e.g. if it rains) then you must make sure that it is properly dried before the liquid membrane is applied.

**Q: I HAVE STARTED TO APPLY ROOFTEC POLY-GUARD LIQUID ROOFING MEMBRANE AND IT HAS STARTED TO RAIN. WHAT CAN I DO?**

**A:** Stop the application process and wait for the rain to stop. If you have used the Same Day Primer, dry the roof and re-apply the primer (as per the application process) to the areas that you had not laid the liquid membrane on. If you are applying the liquid membrane within 48 hours of stopping, overcoat the membrane you had managed to lay by about 100mm and carry on. If you are outside the 48 hour window you will need to re-prime a 100mm strip on the existing liquid membrane coating and allow it to dry before you carry on.

### HELP AND ADVICE

For project particularities and more precise technical support please contact Samac Fixings at:

**TEL:** 01268 764488

**EMAIL:** sales@samacfixings.co.uk



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