

## technical data sheet

# ULTRASEAL

## Polyurethane Waterproofing Membrane Range

### PRODUCT

Bostik Ultraseal provides a range of superior one component, flexible, polyurethane waterproofing membrane systems.

### DESCRIPTION

Bostik Ultraseal polyurethane waterproofing membranes are specifically formulated for applications where tile over or other following trade cover is intended in internal and external wet area applications. Curing tough and elastic, these high performance, flexible membranes are supplied in trowel/brush, roller and low viscosity grades.

### RECOMMENDED USES

- As a sandwich membrane between shower recess base and mortar bed.
- Waterproofing external balconies, podium levels, internal wet area kitchen, toilet and bathroom floors and walls prior to the application of surface wearing toppings.
- Suitable for concrete slabs, cement rendered concrete, masonry, fibre reinforced cement sheeting, water resistant plasterboard and plywood.
- Planter boxes and tubs.

### FEATURES & BENEFITS

- Available in trowel/ brush, roller and low viscosity grades.
- All grades create a tough elastomeric waterproofing membrane when fully cured.
- Low odour.
- Free of pitch or bitumen modification.
- Will not bleed through porous materials such as marble, natural stone and slate tiles.
- Excellent chemical resistance.
- Non re-emulsifying.
- Ready to use, no mixing required.
- Excellent workability.
- Early access for following trades.
- Tenacious bond strength to virtually all common building substrates.
- Reaches sufficient cure generally in 24 hours allowing for early placement of mortar beds, screeds or tile adhesives.
- Ultraseal has A.B.S.A.C. Appraisal No. 197.

### PACKAGING

Ultraseal is available in 15 litre (18.5kg) pails, 4 litre pails and in 600ml (735gm) sausages.

### COVERAGE

Applied by brush or roller, 1 litre will cover 0.75 M<sup>2</sup> at 1.3mm wet film thickness.

### THE ULTRASEAL MEMBRANE RANGE

#### PERFORMANCE PROPERTIES

(Not to be used for specification purposes)

Typical properties after seven days cure at 25°C and 50%RH

TEST	RESULT
Colours	Sandstone – Grey
Appearance	Smooth trowel, brushing or roller consistencies
Tack-Free Time	Approx. 4hrs at 25°C and 50% RH
Cure System	Moisture cure polyurethane
Specific Gravity	1.23 Approx.
Full Cure	7 Days at 25°C and 50% RH
Flammability	Non-flammable
Following trades	24 hrs minimum @ 25°C & 50% RH

#### 1. ULTRASEAL – TROWEL/BRUSH GRADE

##### (COLOUR SANDSTONE) - 600ml sausages.

The sausage packaging is designed for extrusion by 37cm barrel gun direct to the work area or by cutting behind the metal sealing clip at one end and extruding contents onto a work board for trowel, brush or spatula spread dispersion.

#### 2. ULTRASEAL R - ROLLABLE GRADE

##### (COLOURS SANDSTONE & GREY) 15 & 4 Litre pails

Ultraseal R (rollable) is most suited for vertical and horizontal wet areas such as larger bathrooms, laundries and kitchens.

#### 3. ULTRASEAL LV - LOW VISCOSITY

##### (COLOUR GREY) – 15 Litre pails

Ultraseal LV is especially formulated for application by roller on large exterior level decks and podium areas where a thinner, easier to apply coating is required. Ultraseal LV is not suitable for vertical applications.

### PRODUCT NOTE

- The following instruction steps as detailed in this Technical Data Sheet may not be applicable in every application. They are provided as a guide to help ensure the correct procedures are followed.
- It is recommended that the installation of Bostik Ultraseal membranes should be carried out by professional applicators of waterproofing membranes. Installation shall be strictly in accordance with the manufacturer's written instructions.
- Bostik Technical Division must approve any modification or variances with these specifications in writing.
- When ever appropriate, the application of Ultraseal Membranes must comply with AS3740-2004 'Waterproofing of Internal Wet Areas in residential buildings'

## PREPARATION

- Read precautions prior to applying any product from the Ultraseal Membrane range.
- Commencement of membrane installation shall be taken as acceptance of the substrate suitability and preparation by the applicator.
- All surfaces must be clean, dry and free of voids, curing compounds, projections, loose materials, oils, grease, sealers and determined to be structurally sound before the application of Bostik Ultraseal.
- New concrete must have cured for 28 days, mortar beds and screeds 7 days.
- Bostik Moisture Seal vapour barrier should be used to seal concrete slabs containing high moisture content (over 15%) prior to any membrane application.
- Particularly rough surfaces should be filled using a recommended Bostik floor-leveling compound making sure to follow instructions for preparation, application and curing time.
- Ultraseal Membranes should not be applied in any application until all preparation steps have been completed.
- On completion of membrane placement, a light broadcast of fine dry sand could be spread into the still wet Ultraseal to enhance grout or tile adhesive adhesion.
- Ultraseal should not be used in chlorinated water such as swimming pools, spas etc.

## PRIMING

- Prior to any application of Ultraseal it is recommended that a small amount of the selected membrane be applied on the substrate surface and allowed to cure to test adhesion.
- Bostik Ultraseal polyurethane membranes do not generally require priming except in applications where the membrane is to be applied to a substrate that has been treated with coatings or sealers or is of particularly unusual surface characteristics. Consult Bostik Technical Division for assistance if such circumstances exist.
- Bostik Guardcote, applied in accordance with the Technical Data Sheet, must be used as a primer for Ultraseal LV on porous surfaces to ensure sealing of the substrate to eliminate possible pin holing.

## MOIST OR DAMP SURFACES

- New concrete must be cured for 28 days.
- Bostik Ultraseal should not be applied to surfaces, determined by moisture meter, which have moisture contents higher than 15%. Applications to these surfaces can result in adhesion failure or bubbling with subsequent pin holing of the surface of the membrane.
- Bostik Ultraseal Membranes are not vapour barriers nor designed to stop a hydrostatic head of water pressure. If substrate moisture is evident Bostik Moisture Seal (a vapour barrier) must be applied and allowed to fully cure before the introduction of any Ultraseal Membranes (refer Technical Data Sheet for Moisture Seal application).

## INTERNAL WET AREAS – SEALING CORNERS & WASTE OUTLETS

- Bostik Ultraseal Fillet & Seal polyurethane based sealants are to be used in these applications.
- Ensure falls required in the screed to shower recess base, pipe outlets, angles and drainage are installed correctly.
- All corners and substrate gaps around taps, shower outlets, waste outlets, pipes, drains, flashings and nail/screw holes must be sealed using Ultraseal Fillet & Seal sealant.

- Apply a 10mm bead of sealant by caulking gun directly into all wall/floor, hob/floor, hob/wall and wall/wall corners to intending tile height.
- Sealant should be spatula tooled smooth around fittings and pressed into corners creating an 8 –10mm triangular fillet.
- Allow sealant to tack off (approximately 45 minutes).
- Apply primers (if required), after sealant tack off, to all areas intended for Ultraseal application.

## EXTERNAL DECK PREPARATION

- If the balcony or deck areas to be coated are subject to service or other building penetrations, it is recommended, if possible, to install a flanged metal up-stand around the penetration.
- Prime metal up-stand with Bostik 5077 primer and seal off the perimeter of the penetration with a 10mm bead of Bostik Ultraseal Fillet & Seal sealant.

## CRACKS & NARROW JOINT SEALING

- If cracks or narrow joints are evident in the floor area or walls they need to be “chased out” and cleaned by spatula and stiff brush removing all residue.
- After cleaning, fill all cracks and joints up to 3mm wide with a broad spatula application of Bostik Ultraseal Fillet & Seal. Cracks and joints greater than 3mm must be filled as detailed then bridge joint by spreading Bostik Ultraseal Fillet & Seal, minimum 2mm in depth, 35mm on either side and over the joint. Allow Ultraseal Fillet & Seal to reach initial set (approx. 45 minutes) before returning to apply the selected Ultraseal Membrane to the area to be waterproofed.

## APPLICATION OF THE MEMBRANES ULTRASEAL TROWEL & R GRADES

- A minimum cured dry film thickness of 1mm must be maintained with all Ultraseal grades to achieve a waterproof membrane. To ensure this cover is achieved it is recommended a wet film thickness of 1.3mm (0.75m<sup>2</sup>/litre) be applied.

## WALLS

- The wall/wall and wall/floor corner application instructions for Ultraseal are applicable in all wet area applications.
- From the intending tile height, apply Ultraseal by gun, small spatula or brush down all vertical corners that have been previously sealed with Ultraseal Fillet & Seal.
- With a brush (Ultraseal R), flat or corner trowel (optional method of smoothing material in corners) spread the Ultraseal evenly down the corners and out 200mm onto adjacent walls. Ultimate shower recess cover would be to completely coat the whole wall areas with Bostik Ultraseal up to the intending tile height.

## SHOWER BASE OR INTERNAL FLOORS

- Continue across the wall to floor corners spreading 200ml width onto both wall and abutting floor area. Smooth off the applied Ultraseal with a paintbrush.
- For shower recesses repeat the same procedure over the complete shower base working out and over the hob if fitted. Ultraseal must be dressed down the waste at least 50mm.
- This should now see Ultraseal evenly spread up all corners to the intending tile heights and out 200mm each side.
- Check for pin holing, recoat pin holing if evident as necessary to ensure membrane integrity.

## **ULTRASEAL R & LV GRADE EXTERNAL DECK APPLICATIONS**

After all preparation steps have been completed and any primers, if applied are dry, then;

- Apply Ultraseal into wastes, drains or onto puddle flanges. Ultraseal must be dressed down into the waste at least 50mm.
- Apply an initial coat of Ultraseal either side of all wall/floor junctions and sheet flooring joints. Extend the coating at least 200mm either side of the joints.
- Once initial coat is completed and “tacked off”, pour a liberal amount of selected membrane onto the substrate and spread by use of a nap roller. Move the material around and cross roll to ensure an even flow and cover.
- If the product looks transparent apply more material. This is an inbuilt safety feature of Ultraseal R and LV.
- Ultraseal LV will slump if applied to vertical surfaces and will require priming with Bostik Guardcote when applied to porous surfaces (see priming).
- Check the membrane application for pin holing, if evident recoat pin holing as necessary to ensure membrane integrity.

## **MEMBRANE RECOATING and/or REPAIR**

### **Recoating (after 7 days following full cure).**

The surface must be cleaned free of all residue, surface dust and any forms of contamination present. The surface can then be reactivated with use of a clean rag lightly saturated with Bostik solvent 9934. Apply sparingly with a light buffing/cleaning action.

### **Repairing**

If repair of Bostik Ultraseal is necessary, the thorough removal of all foreign adhesives or toppings must be carried out. Ensure the repair area surface is left free of all residue, dust or contamination. Solvent wipe and clean with Bostik 9934 as detailed in recoating.

In both applications do not pond or flood the surface with excessive 9934 solvent, as this will soften the existing membrane surface and may damage/dissolve the film thickness.

After solvent cleaning, isolate the area to ensure the membrane is not recontaminated. Spot repair or recoat the membrane after all solvent has flashed off, usually within 4 hours.

During solvent cleaning operation ensure adequate ventilation and personal health and safety protection is provided as per Bostik 9934 Technical and MSDS.

## **MEMBRANE PROTECTION**

Extended periods of exposure will require the provision of membrane protection from following trades. To eliminate possible surface damage or contamination it is recommended mortar bedding, tiling or finished flooring installations should be carried out as soon as possible after full cure of membrane is established.

## **TILE ADHESIVES**

Do not attempt to apply tile adhesives to any of the Ultraseal membrane range whilst the membrane is still uncured. Tile adhesives must be compatible with the tile type and Ultraseal.

## **TILING INTERNAL WET AREAS & EXTERNAL AREAS**

If direct sticking the tile adhesive to Ultraseal membrane is intended, Bostik Ultra NP Primer or Multiprime 2 part supplied by Architectural & Structural Adhesives Pty Ltd (ASA) is required to ensure maximum adhesion. The primer must be applied in two coats with a minimum recoat time of 4 to 6 hours (at 25°C and 50% humidity). The primer needs to be applied within 7 days of application of the membrane and the tile adhesive applied within 4 days of the application of the primer.

The adhesives that can be used for tiling include ASA Conflex, Asaflex, Fixall with Megalastic additive, or Megafix. Up to date technical literature should be consulted prior to application. Product data sheets are available online at [www.asaltd.com.au](http://www.asaltd.com.au) or by contacting ASA technical advice toll free 1800 813 890.

Alternatively, a polyurethane based adhesive such as Polyflex, Marblefix or Asaphonic can be applied directly over the Ultraseal membrane within 7 days of membrane curing. If tiling after 7 days consult your Bostik Technical Representative.

The installation of the Ultraseal waterproofing systems should be installed as per AS3740 and in conjunction with the manufacturers instructions. The tile adhesives must be applied in accordance with AS3958.1-1991 “ Guide to the installation of Ceramic tiles – Part 1” and the manufacturers instructions.

## **PRECAUTIONS**

- As product literature can be regularly updated please ensure the most up to date information is consulted from the manufacturer prior to commencement of application.
- Due to the state of the concrete, pin holing may occur during the course of, or shortly after completion of application. Affected areas must be recoated to ensure perforation free membrane coverage is achieved.
- Standing water introduced to freshly applied Bostik Ultraseal or excessive slab moisture may cause the membrane layer to swell. If this should occur, the affected area should be cut out and replaced with fresh Ultraseal once the slab is completely dry. (see recoating & repair).
- Bostik Ultraseal Membranes are not vapour barriers nor designed to stop a hydrostatic head of water pressure. (For this application Bostik Moisture Seal, a vapour barrier, is recommended).
- Rate of cure will be inhibited when air or substrate temperatures are below +5°C or if applied over a vapour barrier or untreated concrete.
- Ultraseal should not be applied greater than 2mm in depth in one application as the likelihood air entrapment foaming or blistering may occur.
- Membranes require atmospheric moisture to fully cure. They should not be used in totally confined or air free spaces.
- Mortar bed screeding, tiling or planter box earth filling should not be carried out until Ultraseal has cured for a minimum of 24 hours @ 25°C.
- Bostik Ultraseal Membranes should never be used as a wearing course for foot or vehicle traffic or as an exposed finish or top coating exterior membrane. Bostik Boscoseal Torch On Membrane with mineral slate finish sheet is designed for these applications.
- Do not apply in temperatures greater than 35°C.
- Any intended application of Bostik Ultraseal Membranes outside of intended use should be first referred to Bostik Technical Division for approval in writing.

## **P.A.T.S (Pretested Adhesion to Substrate)**

### **Program**

Bostik offer a service in which a program has been established to eliminate potential field problems by pre-testing Bostik membranes and coatings with samples of building materials to which the membranes will be applied. This service is available on large projects where pre-application testing will aid in determining the proper surface preparation method to achieve optimum adhesion. Consult a Bostik representative for further information.

## HEALTH AND SAFETY

- Product should only be applied under conditions of good ventilation and should be kept away from sensitive areas of the body as prolonged exposure may cause skin and/or respiratory irritation.
- Protective mask and safety glasses should be worn for spray applications due to atmospheric particulates.
- Avoid contact with the skin, eyes and avoid breathing its vapour.
- Wear protective gloves and glasses when open lid handling and in the application process.
- If poisoning occurs, contact a doctor or Poisons Information Centre.
- If swallowed, do not induce vomiting; give a glass of water.
- If skin contact occurs, remove contaminated clothing and wash skin thoroughly using Bostik Handi-Clean Towels.
- If in eyes, hold eyes open, flood with water for a least 15 minutes and see a doctor.
- Bostik Ultraseal can be cleaned from equipment with Bostik 9907 or 9934 solvents before fully cured.
- For more detailed information refer to the Ultraseal Material Safety Data Sheet.

## CLEAN-UP

Bostik Handi-Clean Towels will remove Ultraseal from skin prior to full cure. Do not use solvents on skin.

When using solvents always wear eye protection and use in well-ventilated area.

## STORAGE

Store under cover in dry conditions.  
If stored between 5°C and 30°C. in original unopened containers Ultraseal has a shelf life of 12 months.

## FIRE

All grades of Ultraseal are nonflammable

Item No	Product & Stock Size	Colour
260568	Ultraseal R 15 Litre pail	Sandstone
268453	Ultraseal R 4 litre pail	Sandstone
298255	Ultraseal R 15 Litre pail	Grey
298565	Ultraseal R 4 Litre pail	Grey
301205	Ultraseal LV 15 Litre pail	Grey
230227	Ultraseal 600ml sausage	Sandstone
264229	Fillet & Seal 600ml sausage	White
263362	Moisture Seal 20 Litre kit	Grey
263370	Moisture Seal 8 Litre kit	Grey
227935	5077 primer 1 litre	Clear
257753	Handi – Clean Towels	
289396	Guardcote 4 Litre	Clear
298418	Guardcote 20 Litre	Clear
045306	9907 Solvent 20 Litre	Clear
161608	9934 Solvent 20 Litre	Clear

*The representations and recommendations regarding the products are based on tests, which we believe to be reliable. However, no guarantee of their accuracy can be made because of the great range of field conditions and variations encountered in raw materials, manufacturing equipment and methods. Thus, the products are sold with a limited warranty only, and on the condition that purchasers will make their own tests to determine the suitability of the product for their particular purposes. Under no circumstances will Bostik Australia Pty Ltd be liable to anyone except for replacement of the products or refund of the purchase price.*

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