

WATERPROOFING

26 November 2017

DESCRIPTION

Dampfix Rapid is a one component rapid drying waterbased polyurethane, Class 3 waterproofing membrane system that meets the requirements of AS3740 by complying with AS/NZ 4858.

This waterproofing membrane system is specifically formulated for application on graded substrates that provide positive falls to drainage outlets. Overlaying tiling systems must comply with Guide to the Installation of Ceramic Tiles – AS 3958.1).

Bostik Dampfix Rapid waterproofing membrane is a 2-coat system, to be applied over primed "porous & non-porous" substrates

YOUR SMART ADVANTAGES

- Class 3, high elasticity.
- Fast drying. Recoat in 1-2 hours @ 22 o C & 50%
 RH. Flood test after 24 hours @ 22°C / 50% RH.
- Can be tiled after 4-6 hours @ 22°C / 50% RH in non-critical areas.
- Compatible for tiling with Bostik ASA tile adhesive system.
- Excellent adhesion to concrete; rendered masonry; wet area plasterboard; FC sheet & plywood. Can be applied to damp substrates (provided no free surface water)
- Brush or roller applied
- Designed for commercial and residential application

USES

- As a waterproofing membrane under tile to internal wet area shower, bathroom, kitchen, laundry & toilet areas when installed to AS/NZ 3740.
- As a waterproofing membrane under tile or other wearing surface systems to external balconies, rooftops & podium levels when installed to AS/NZ 4654.2.

- All applications to be covered by tile or other protective system.
- Suitable for concrete; cement rendered masonry; FC sheeting; water resistant plasterboard; and structural plywood (Type A Stamped "PAA JAS-ANZ" to AS/NZS 2269-2004) substrates

PRODUCT CHARACTERISTICS				
Colour	Blue			
Appearance	brush/roller grade smooth paste			
Shore "A" Hardness	Approx 70			
Elongation	> 800 %			
Minimum Dry Film Thickness	0.6mm (walls) to 0.9mm (floors) after 2 coats			
2mm Crack Bridging	Pass			
Coverage	10 - 15m² after 2 coats			
Volume Solids	Approx 65%			
Tensile Strength	≥ 1.5 MPa			
Dry Time per coat	1 - 2 hours @ 22°C / 50% RH (min 2 coats)			
Dry time following Trades	4-6 hours @ 22°C / 50% RH			
SG	Approx 1. 3 g/cm³			
Minimum Wet Film	0.5mm / coat Minimum 2 coats			
Membrane Rating	Class 3			
Flammability	Non-flammable			
Packaging	15 Litre pail			
Moisture Vapour Transmission Rate	1.24 grams / m² / 24hours			

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SURFACE PREPARATION

- Read precautions prior to applying any component of the membrane system.
- Commencement of membrane system installation shall be taken as acceptance of the substrate suitability and preparation by the applicator.
- Check that the surfaces of all substrates to be used are structurally sound, clean, dry or damp with no free surface water. Must be smooth and free of voids & protrusions, oils, grease, curing compounds, coatings, adhesive residues and are uncontaminated by preceding trade activities.
- Check that all composite substrates, such as wall & floor sheets are fully supported and installed to the manufacturer's instructions.
- Where platform floor sheeting, in particular particleboard, is installed check manufacturer's specification for suitability in wet area applications and ensure that protective coatings do not impair membrane adhesion.
- New concrete and render must have cured for a minimum 28 days.
- Sand & cement screeds and polymer modified renders must have cured for a minimum 7 days.
- Substrates that are not smooth or free of voids and protrusions must be ground and vacuumed clean. All remaining voids must be repaired using, Bostik UL-Ultrafine, making sure to follow instructions for preparation, application and curing time. Refer to Bostik UL-Ultrafine Technical Data Sheet
- Bostik Multiprime must be applied as a primer coat on all applications to porous substrates, e.g. concrete, screeds, renders. Refer Bostik Multiprime Technical Data Sheet.
- Bostik N40 Primer must be applied using "2 cloth method" on all applications to dry rigid plastic & metallic non-porous substrates, e.g., UPVC drainage outlets and penetrations; aluminium angle water stops, brass tap bodies, copper and galvanised penetrations, stainless steel drains & gutters etc. Refer to Bostik N40 Primer Technical Data Sheet.
- 2 coats of Bostik Moisture Seal must be used to seal concrete slabs subject to a hydrostatic head of pressure from the negative side. Bostik Moisture Seal must be clean, dry and smooth immediately prior to membrane application. Refer to Bostik Moisture Seal Technical Data Sheet.
- Membranes should not be applied until all preparation steps have been completed.

Cracks & Joint Sealing

Concrete & Masonry Substrates

- Static cracks up to 2mm in width, i.e. cracks that do not move or continue to propagate, must be filled with Bostik UL-Ultrafine after priming with ASA Multiprime, and prior to the first full coat of membrane.
- Static cracks greater than 2mm but less than 4 mm in width, i.e., cracks that do not move or continue to propagate, must be filled with Ultrafine Finish after priming with ASA Multiprime, and prior to the first full coat of membrane. Static cracks greater than 5mm must be filled with Bostik UL-Rapidset.
- Cracks greater than 2mm that are subject to movement or propagation must be referred to the builder or engineer for structural assessment and method of rectification to perform as an expansion joint.
- Expansion joints must be a minimum 6mm in width and require a backer rod installed prior to the installation of Bostik V4 Titanium Silicone / V70 Silicone / 6S Silicone at a width: depth ratio of 2:1. See "Expansion Joints" below.

Floor & Wall Sheet Junction

- All floor and wall sheets must be installed to sheet manufacturer's specification and primed with Multiprime.
- Internal or external sheet floor systems, suitable for wet area applications, require sealant/adhesive application to seal sheet joints at the time of installation to comply with manufacturer's instructions. Where appropriate, the Waterproofer must confirm that the sealant used is compatible with Bostik Dampfix Rapid waterproofing membrane.
- Floor sheet joints that use Polyurethane sealants at installation must be cured for a minimum 7 days prior to the application of the membrane.
- All sheet joints must be isolated from the membrane by a min 12mm wide bond breaker tape that covers the entire width & length of the sheet join.
- As floor sheet joints are more prone to movement over joist supports, apply an extra 900 micron (0.9 mm) wet coat extending a minimum 35mm either side of the bond breaker tape. A further 2 full coats, at 900 microns each, must be applied over the entire area to be waterproofed.

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Expansion Joints

- All expansion joints must be isolated from the membrane by a minimum 12mm wide bond breaker tape that covers the entire width & length of the joint.
- An extra 900-micron (0.9 mm) wet coat extending a minimum 35mm either side of the bond breaker tape must be applied as an extra coat. A further 2 full coats, at 900 microns wet coat each, is required to the entire area to be waterproofed.

Priming

Porous Substrate

- A porous or absorbent substrate will allow a bead of water to easily soak into and wet out the surface of the substrate.
- Primer must be used prior to the application of the membrane to avoid pinholes.
- Bostik Multiprime must be stirred and not shaken if colour separation is evident. Colour separation will not affect the performance of Bostik Multiprime.
- Bostik Multiprime must be applied as a primer coat on all applications to porous substrates.
- Refer to Bostik Multiprime Technical Data Sheet.

Non-Porous Substrate

- A non-porous or impervious substrate will cause a bead of water to be retained on the surface of the substrate as a raised droplet. The droplet does not easily soak into the surface of the substrate.
- Concrete that is overworked or burnished at the time of placement can become nonporous when cured. Mechanical abrasion, such as captive shot blasting or vacuumed grinding is required to open substrate pores prior to the application of ASA Multiprime primer.
- Rigid plastic and metallic substrates require Bostik N40 primer applied using the "2 cloth method" e.g., uPVC drainage outlets & penetrations, aluminium angle water stops, brass tap bodies, copper or galvanised penetrations, stainless steel drains & gutters etc. Refer to Bostik N40 Primer Technical Data Sheet

"Two Cloth Method"

 Dampen a clean & dry cloth with Bostik N40 primer and spread evenly over the nonporous substrate using a cleaning/rubbing action.

- With a second clean & dry cloth, immediately wipe all primer residues off with a buffing action
- Allow the substrate to dry for a minimum of 5 minutes before installing Bostik V4
 Titanium Silicone / V70 Silicone / Zbond 6S
 Silicone sealant and/or Bostik Dampfix Rapid waterproofing membrane.
- Do not leave the primer longer than 4 hours before applying sealant/membrane.
- Re-prime if 4 hours has lapsed without applying sealant/membrane.
- Clean & re-prime if the primed surface is contaminated with excavation spoil, water, condensation, dust or other contaminates before sealant or membrane can be applied.

Note: For pre-treated surfaces, contact Bostik Technical Service for recommendation.

APPLICATTION

Moist or Damp Surfaces

- Multiprime can be applied to damp porous substrates, i.e. with no free water on the surface.
- N40 Primer must not be applied to a damp non-porous substrate.
- Bostik Dampfix Rapid waterproofing membrane is not a vapour barrier and is not designed to stop a negative hydrostatic head of pressure. Where a substrate is subjected to a hydrostatic head of pressure from the negative side Moisture Seal must be applied and be allowed to fully cure before the membrane application. Refer to Bostik Moisture Seal Technical Data Sheet.

Bond Breaker & Membrane Installation

- Internal wet area installation must comply with the minimum requirements of AS/NZ3740 Section 3, "Installation". As a guide, refer pages 12 to 33.
- External wet area installation must comply with the minimum requirements of AS/NZ4654.2, Section 2, "Design and Installation". As a guide, refer pages 7 to 30.
- Bostik V4 Titanium Silicone / V70 Silicone / 6S Silicone is to be installed over the dry primer coat where a bond breaker joint is required, e.g. to internal corners and changes in direction of substrate plane, such as wall/floor; wall/wall; hob/wall junctions, pipe penetrations, tap bodies, water stops, drainage outlets and the like.
- Bond breaker joints must be a minimum 12mm x 12mm coved bead of sealant applied by caulking gun continuously into all changes of substrate plane, such as, wall/floor, hob/floor, hob/wall and wall/wall corners to

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- the minimum termination height required by AS/NZ3740 or AS/NZ4654.2 as applicable.
- The sealant must bridge all gaps and holes with a minimum 6mm contact onto the adjacent substrates.
- All bond breaker joint sealant profiles must be a minimum 6mm in depth at the mid-point of the joint.
- Substrate gaps at drainage outlets, flashings, and water stops, nail/screw holes etc must also be sealed using Bostik V4 Titanium Silicone / V70 Silicone / 6S Silicone sealant prior to Bostik Dampfix Rapid Drying waterproofing membrane application.
- Where applied, Bostik V4 Titanium Silicone / V70 Silicone / 6S Silicone must be spatula tooled smooth around fittings and at all changes of substrate plane to a minimum 12mm x 12mm coved joint. The sealant must be a minimum 6mm in depth at the mid-point of the bond breaker joint and extend a minimum 6mm on either side of the joint or gap.
- Apply Bostik Dampfix waterproofing membrane as soon as the bond breaker joint can be over coated without deformation of the coved sealant profile.

Application of the Membrane

- This is a 2-coat system.
- Can be applied by brush, roller or trowel
- Each coat must be applied at a uniform thickness of 0.9mm (minimum). 2 coats will achieve a total wet film thickness of 1.8mm
- It should not be applied in excess of 1.8mm thick per coat.
- A wet film gauge should be used to regulate adequate coverage of each coat.

Membrane Protection

- Membrane should be protected throughout the application process and during the initial 24-hour cure period by the placement of signs and barriers to deny access to next trades.
- Further temporary protection sheets must be installed securely, to protect the cured dry film from damage by following trades, until a protective screed or finished floor system is installed.

Membrane Recoating and/or Repair

Recoating

- The surface must be cleaned free of all tile adhesive residue, surface dust and any form of contamination or substrate irregularity
- The membrane surface must be washed down with diluted detergent solution, thoroughly rinsed and allowed to dry.

Repairing

- The adjacent membrane must be sound with minimum dry film thickness of 1.2mm that is fully adhered to the substrate.
- Membrane must be thoroughly cleaned of all foreign material and left free of all cleaning agent residue, dust or contamination
- Ensure that any exposed porous and nonporous substrates are correctly prepared, primed and sealed.
- Apply 2 coats of Bostik Dampfix Rapid waterproofing membrane as per "Coverage" instructions.
- Ensure that the membrane repair overlaps the existing membrane by a minimum 100mm.
- A consistent minimum 1.2mm dry film thickness is required over both previously coated and uncoated repair areas. (Refer "Coverage" table below)

Paintability

Bostik Dampfix Rapid waterproofing membrane is paintable. Refer to paint supplier's recommendations.

COVERAGE

This will vary with the porosity of the substrates. Two coats are recommended to get the optimum performance.

For floors

A minimum dry film thickness of 0.9 mm after 2 coats is required. 15 Litres pail will cover approximately 10 m² (based on two coats).

For walls

A minimum dry film thickness of 0.6 mm after 2 coats is required. 15 Litres pail will cover approximately 15 m² (based on two coats).

		Thickness per coat		Total dry film thickness
		Wet film	Dry film	(2 coats)
	Floors	0.75 mm	0.45 mm	0.9 mm
	Wall	0.5 mm	0.3 mm	0.6mm

	Theoretical coverage		Per unit
	per coat	for 2 coats	
Floors	20 m²	10 m ²	15 L Pail
Wall	30 m ²	15 m²	15 L pail

Application	Wet Film Thickness	Dry Film Thickness
Wall (2 coats)	1000 microns (1.0mm)	600 microns (0.6mm)
Floor (2 coats)	1500 microns (1.5mm)	900 microns (0.9mm)

CLEANING

Warm soapy water will remove product from tools & equipment prior to full cure

STORAGE AND SHELF LIFE

12 Month shelf life when stored unopened between 5°C and 30°C. Protect from excessive heat, direct sunlight, moisture and freeze/thaw.

IMPORTANT NOTES

- This is a one part system. Do not dilute with water or any liquid.
- Must not be installed directly on wet (standing water), contaminated, or friable substrates
- Minimum dry film thickness after 2 coats is 0.6mm (walls) to 0.9mm (floors).
- Regular checks with a wet film gauge during the application of each coat are advised.
- Do not apply the system when air or substrate temperatures are below 50 C.
- Cold damp conditions will adversely affect application properties and slow rate of curing.
- Do not apply Bostik Dampfix Rapid waterproofing membrane when air and substrate temperature is greater than 35°C or below 5°C.
- When used in areas subject to ambient conditions below freezing special installation precautions must be taken. Contact Bostik for advice before commencing work.
- All AS 4654.2 external membrane applications covered with a reinforced tile bed or screed must be separated from the membrane by a minimum one layer of 200um plastic sheet as a separation layer in accordance with AS3958.1 - 3.3.2.3.
- The installation of protection board and ballast, such as river pebbles or similar loose laid unbound coverings, must be isolated from the membrane by a compatible drainage cell and filter fabric system.

- Must not be applied directly over lightweight concrete. Hobs constructed of autoclaved aerated blocks, e.g. Hebel, must be saturated with 2 coats of Multiprime to consolidate and seal the substrate. This is to prevent pin holing of the membrane and provide enough strength to support tiling of the hob.
- Autoclaved aerated block walls must be rendered prior to the application of the membrane system.
- Bostik Dampfix Rapid waterproofing membrane is not recommended for constantly submerged applications such as swimming pools, ponds and spas. Use Bostik Dampfix Immersed waterproofing membrane.
- Bostik Dampfix Rapid waterproofing membrane is not designed to withstand negative side substrate head of pressure. Use Bostik Moisture Seal.
- Any intended application of membrane outside of recommended installation should be referred to Bostik Technical Services for approval.
- Protect contents of pail from excessive heat, and freeze/thaw prior to use.
- Contact Bostik Technical Service prior to commencing work if there is any uncertainty regarding its suitability

IMPORTANT NOTES

- 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 assist in meeting the installation requirements of AS/NZ3740 and AS/NZ4654.2
- It is recommended that the installation be carried out by professional, licensed applicators holding a current Certificate 3 in Waterproofing.
- Bostik Technical Department must approve any modification or variances to this technical data sheet in writing followed by the issuance of an amended Technical Data Sheet.
- Wherever appropriate, the installation must comply with AS/NZ 3740 'Waterproofing of Internal Wet Areas in residential buildings' & AS/NZ 4654.2 "Waterproofing membrane systems for exterior use – Above ground level".
- This product is formulated for brush, roller or trowel application to both small and large areas.
- A wet film gauge must be used regularly to ensure that minimum wet film builds are achieved for each coat.
- All vertical terminations, including perimeter walls, hobs and penetrations etc must be of adequate height to satisfy AS/NZ 3740 for

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internal applications & AS/NZ 4654.2 for external applications.

- The minimum film build requirements for vertical surfaces are identical for horizontal applications and must be applied without slump or deformation when cured.
- Apply Bostik V4 Titanium Silicone / V70
 Silicone / 6S Silicone as a bond breaker joint
 to all horizontal/vertical junctions, e.g.
 wall/floor, wall/wall, hob/ floor, hob/wall &
 shower set downs etc, prior to all membrane
 applications.
- Allow 24 hours @ 22°C / 50% RH before flood testing the installed system. Inspect the joints or other critical areas have been fully dried prior to flood testing.
- Critical areas where the membrane is applied greater than 1mm wet film or over bond breakers and other impermeable substrates longer drying time is required.

Note on Suitable Sealants

Suitable sealants for use as bond breakers (in order of preference and performance) include:

- 1. Bostik V4 Titanium
- 2. Bostik V70
- 3. Bostik 6S

Correct bond breaker selection and installation is vital to overall membrane performance. Using an unsuitable sealant can increase the risk of failure and must be avoided. If in doubt, contact Bostik Technical Services for advice.

For emergency information contact the Poisons Information Centre, phone 131 126 or the Emergency Response Service, phone 1800 033 111.



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