



Dampfix 1K

One component cementitious flexible

WATERPROOFING

05 March 2021

YOUR SMART ADVANTAGES

- one component, flexible, fibre-reinforced
- Suitable for both negative and positive hydrostatic pressure to 5 bars (50 Meters)
- Fast drying. Recoat in 1-2 hours
- Class 1, low extensibility when tested to Australian standard AS 4654 .1 & AS/NZS4858
- AS4020:2018 - potable water certificate
- Brush, roller, trowel or spray equipment applied)
- Designed for commercial and residential application

DESCRIPTION

Dampfix 1K is a one component, flexible, fibre-reinforced WPM, based on cement modified with special polymers and selected graded aggregates, plus special waterproofing additives to produce a flexible waterproofing surface subject to flexural strain.

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.
- As an exposed waterproofing membrane to external applications subjected to light pedestrian traffic only.
- As a waterproofing membrane for Planter Boxes, Retaining walls.
- As a waterproofing membrane for swimming pools.
- 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	Cementitious grey powder.
Appearance when mixed	Smooth, brush/roller grade, cement grey paste
Shore "A" Hardness	Approx 80
Tensile Strength	> 2.00 MPa
Dry Time per 1 mm coat	1 -2 hours @ 22°C / 50% RH (min 2 coats)
Dry time following Trades	24 hours @ 22°C / 50% RH. 2 weeks if in contact with drinkable water. In pool situations 4 days of curing prior to tiling.
Dry Film Thickness	For special applications including negative pressure, the optimum waterproofing performance is obtained by applying Dampfix 1K by trowel in at least 2 layers, to a total thickness of 3 mm. For general applications 2 coats of minimum 1mm are recommended.
Resistance against water pressure	5 bars (50 Meters) for both negative and positive hydrostatic pressure
Crack Bridging	> 0.5 mm
Pot Life	> 30 min @ 22°C / 50% RH
Coverage	1.2 kg/m ² /mm thickness
Packaging	20 Kg bag
SG	Approx 1.5 g/cm ³ when mixed
Membrane Rating	Class 1 Australian standard AS 4654 .1 & AS/NZS4858
	• Suitable for positive & negative hydrostatic pressure to 50m

Dampfix 1K

DIRECTIONS FOR USE

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)

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 Ultralevel Fine, making sure to follow instructions for preparation, application and curing time. Refer to Bostik Ultralevel Fine 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.
- Membranes should not be applied until all preparation steps have been completed.
- Bostik Dampfix 1K Waterproofing Membrane is recommended for use in swimming pools, ponds and spas when covered by suitable tile finishes bonded with suitable Bostik tile adhesives.

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 Dampfix 1K Waterproofing Membrane or Bostik Ultralevel Fine
- 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, Static cracks greater than 5mm must be filled with Bostik Ultralevel Ramp
- 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 V70 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 recommendations.
- 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 Dampfix 1K 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 75mm 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 1000-micron (1.0 mm) wet coat extending a minimum 35mm either side of the bond breaker tape. A further 2 full coats, at 1000 microns each, must be applied over the entire area to be waterproofed.

Expansion Joints

- All expansion joints must be isolated from the membrane by a minimum 75mm wide bond breaker tape that covers the entire width & length of the joint.
- An extra 1000-micron (1.0 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 1000 microns wet coat each, is required to the entire area to be waterproofed.

Dampfix 1K

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.
- Dampfix 1K can be applied to damp porous substrates, i.e. with no free water on the surface.
- Primer can be used prior to the application of the membrane to avoid pinholes.
- Bostik Multiprime can 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 non-porous when cured. Mechanical abrasion, such as captive shot blasting or vacuumed grinding is required to open substrate pores prior to the application
- 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.
- N40 Primer must not be applied to a damp non-porous substrate.

"Two Cloth Method"

- Dampen a clean & dry cloth with Bostik N40 primer and spread evenly over the non-porous 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 V70 Silicone sealant and/or Bostik Dampfix 1K 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 contaminants before sealant or membrane can be applied.

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

MIXING

- This is a 1-part powder waterproofing membrane and needs to be mix with water
- Mixing ratio can be adjusted in order to obtain the consistency and workability desired for the intended application:
 - Application by roller and spray application: 6-7 Litres water per 20 kg bag
 - Application by brush: 5-6 litres water per 20 kg bag.
 - Application by trowel: 4.2- 4.5 litres water per 20 kg bag
- Add powder into the water while mixing with a mechanically powered high shear stirrer.
- Always add powder to liquid to avoid lumps and incomplete mixing.
- Continue mixing until a uniform and lump free is achieved.
- Do not mix by hand.

APPLICATION

- This is a 2-coat system.
- Can be applied by brush, roller, trowel or spray equipment.
- Each coat must be applied at a uniform thickness of 1.0mm (minimum). 2 coats will achieve a total wet film thickness of 2.0mm.
- It should not be applied in excess of 2mm thick per coat.
- A wet film gauge should be used to regulate adequate coverage of each coat.
- 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' or AS/NZ 4654.2 "Waterproofing membrane systems for exterior use – Above ground level".
- All vertical terminations, including perimeter walls, hobs and penetrations etc must be of adequate height to satisfy AS/NZ 3740 for 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.

Dampfix 1K

- Apply V70 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 a longer drying time is required

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.
- V70 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 35mm x 35mm 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 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 V70 Silicone sealant prior to Bostik Dampfix 1K Waterproofing Membrane application.
- Where applied, V70 Silicone must be spatula tooled smooth around fittings and at all changes of substrate plane to a minimum 35mm x 35mm 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 Dampfix 1K Waterproofing Membrane as soon as the bond breaker joint can be over coated without deformation of the coved sealant profile

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 Bostik Sugar Soap, thoroughly rinsed and allowed to dry.

Repairing

- The adjacent membrane must be sound with minimum dry film thickness of 1.0mm 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 non-porous substrates are correctly prepared, primed and sealed.
- Apply 2 coats of Bostik Dampfix 1K Waterproofing Membrane as per "Coverage" instructions.
- Ensure that the membrane repair overlaps the existing membrane by a minimum 100mm.
- A consistent minimum 1.0mm dry film thickness is required over both previously coated and uncoated repair areas. (Refer "Coverage" table below)

IMPORTANT NOTES

- Must not be installed directly on wet (standing water), contaminated, or friable substrates.
- Minimum dry film thickness after 2 coats is 1.0mm
- 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 greater than 35°C or below 5° C.
- Cold damp conditions will adversely affect application properties and slow rate of curing.
- When used in areas subject to ambient conditions below freezing special installation precautions must be taken. Contact Bostik for advice before commencing work.

Dampfix 1K

- Membrane is suitable for use as an exposed finish or as top coating exterior membrane on applications that are subject to light pedestrian, maintenance traffic only.
- 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.
- Dampfix 1K Waterproofing Membrane can be used in constantly submerged applications such as swimming pools, ponds and spas when covered by tiles using approved Bostik tile adhesive systems.
- Any intended application of membrane outside of recommended installation should be referred to Bostik Technical Services for approval.
- Protect contents from excessive heat, and freeze/thaw prior to use.

PAINTABILITY

Dampfix 1K Waterproofing Membrane is paintable. Refer to paint supplier's recommendations

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.

CLEANING

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

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

BOSTIK HOTLINE

Smart help 1800 267 845



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