



HYDRO BAN®

HYDRO BAN® is a thin, load bearing waterproofing/crack isolation membrane that DOES NOT require the use of fabric in the field, coves or corners. HYDRO BAN is a single component self curing liquid rubber polymer that forms a flexible, seamless waterproofing membrane that bonds directly to a wide variety of substrates. HYDRO BAN is a certified low VOC emitting product. HYDRO BAN is a highly extensible Class 3 membrane suitable for Immersed Installations, Internal Wet Areas and External Above Ground use.

**Globally Proven
Construction Solutions**



Contractor: Sam Gardener Tiling
Photography: Manuele Rinaldi
Location: Brisbane, QLD



FEATURES/BENEFITS

- Allows for fast time to flood test†.
- Does not require the use of fabric.
- Bonds directly to copper, steel, stainless steel and PVC for flashing to plumbing fixtures only.
- Thin; only 0.6 mm – 0.9 mm thick when cured.
- Changes in colour from a light sage to an olive green when dry.
- Changes in colour works as coverage guide during application.
- Anti-fracture protection of up to 3 mm over shrinkage and other non-structural cracks†.
- “Extra Heavy Service” rating per ASTM C627 “Robinson Floor Test”.
- Inhibits stain-causing mould and mildew growth in the substrate with antimicrobial product protection.
- Rapid drying for faster time to tile.
- Lighter colour for ease of inspection.
- Safe - no solvents and non-flammable.
- Install tile, brick and stone directly onto membrane.
- Can be fully immersed - permanently.

† For gaps 3 mm or less see Data Sheet TDS1003

* Refer to cautions section for more information on curing.

MANUFACTURER

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USES

- Interior and exterior use.
- Residential internal wet area work.
- Swimming pools, fountains & water features.
- Shower recesses, stalls and surrounds.
- Industrial and commercial bathrooms and laundries.
- Spas and hot tubs
- Kitchens and food processing areas.
- Terraces and balconies over occupied spaces.
- Counter tops and facades
- Steam rooms when used in conjunction with a vapour barrier.

RECOMMENDED SUBSTRATES

- Gypsum wallboard*~
- Cement Backer Board^~
- Cement Renders & Plasters
- Cement Mortar Beds
- Concrete
- Cement Terrazzo**
- Ceramic Tile and Stone**
- Cement and Brick Masonry**
- Exterior Glue Radiata Plywood**

* Interior application only.

** If skim coated with a LATICRETE® latex thin-set mortar.

^ Consult cement backer board manufacturer for specific installation recommendations and to verify acceptability for exterior use.

~ Some coated or treated boards may be suitable with further preparation. Consult LATICRETE.

PACKAGING

- Trade Unit: 15 litre pail; 36 pails per pallet
- Mini Unit: 3 x 4 litre carton; 32 cartons per pallet

Approximate Coverage

- Trade Unit: 18 m²
- Mini Unit: 4.8 m²

Shelf Life

Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored at temperatures >0°C and <43°C.

Limitations

- Do not bond to OSB, particle board, Luan, Masonite® or hardwood surfaces.
- Adhesives/mastics, mortars and grouts for ceramic tile, pavers, brick and stone are not replacements for a waterproof membrane. When a waterproof membrane is required, use HYDRO BAN®.
- The Installation of waterproofing membranes in submerged applications must be installed in a manner that creates a continuous "waterproof pan effect" without voids or interruptions. Therefore, applying waterproof membranes in limited areas (e.g. solely at the waterline) in submerged applications is not recommended.
- Must be covered with ceramic tile, stone, brick, dry pack thick bed mortar beds (non-submerged applications), terrazzo or other traffic bearing finish. Use protection board for temporary cover.
- Not for use beneath cement or other plaster finishes. Consult with plaster manufacturer for their recommendations when a waterproofing membrane is required under plaster finishes.
- Not for use under self leveling underlayments or decorative wear surfaces.
- Surfaces must be structurally sound, stable and rigid enough to support ceramic/stone tile, thin brick and similar finishes
- Substrate deflection under all live, dead and impact loads, including concentrated loads, must not exceed L/360 for thin bed ceramic tile/brick installations or L/480 for thin bed stone installations and L/600 for all exterior veneer applications where L=span length.
- Do not use over dynamic expansion joints, structural cracks or cracks with vertical differential movement (See HYDRO BAN® How To Installation Guide, TDS1003, for complete instructions).
- Do not use over cracks >3 mm in width.
- Do not use as a vapour barrier (especially in steam rooms).
- Do not expose unprotected membrane to sun or weather for more than 30 days.
- Do not expose to negative hydrostatic pressure, excessive vapour transmission, rubber solvents or ketones.
- Do not install over plywood tubs/showers/fountains or similar constructs.

Cautions

- Consult SDS for more safety information.
- Allow membrane to cure fully before flood testing, typically 24 hours after final cure at 21°C and 50% RH. Cold and/or wet conditions will require a longer curing time. For temperatures 10°C – 21°C allow 48 hours after final cure prior to flood testing.
- Some drywall and dryfloor sheets are treated with moisture blocking coatings. Check for compatibility prior to installing HYDRO BAN directly to these surfaces.
- Maximum amount of moisture in the concrete/mortar bed substrate should not exceed 283 µg/m²/24 hrs per ASTM F-1869 or 75% relative humidity as measured with moisture probes.
- During cold weather, protect finished work from traffic until fully cured.
- Wet coat thickness is 0.4 mm to 0.6 mm per coat. Use a wet film thickness gauge to check thickness during application.

- For white and light coloured marbles, use a white LATICRETE Latex Portland Cement Thin Set-Mortar.
- For green and moisture sensitive marble, agglomerates and resin backed tile and stone use LATAPOXY® 300 Adhesive.
- Allow wet mortars/plasters (tilers screed bed consistency) to cure for 72 hours at 21°C and 50% RH prior to installing HYDRO BAN. Ensure HYDRO BAN is cured prior to mortar bed application. Allow an additional 24 hours curing for the application of thicker, wetter beds over HYDRO BAN.
- HYDRO BAN will go from a light sage green to a darker olive green when dry. The second coat should not be applied until the first coat is fully dry. All flood test times should be after the second coat is fully cured with no light sage areas showing.
- Protect from exposure to traffic or water until fully cured.

TECHNICAL DATA

This membrane meets and exceeds the requirements of AS/NZ4858-2004, AS3558.1, ASTM E96, AS4654.1-2012, AS/NZ4347.9 & ASTM C794 for use as a fully bonded "Internal Wet Area Membrane" & "External Above Ground Liquid Applied Non-exposed Membrane."

VOC/LEED Product Information

Total VOC's	0.22 grams/litre
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Applicable Standard

AS/NZS4858-2004 as per CSIRO

DESCRIPTION	VALUES
Classification	Class 3
Elongation	>450%
Bond Relief required	Minimum 12 mm
Moisture vapour transmission	0.86g/m ² /24 hours

Working Properties

HYDRO BAN can be applied using a paint brush, roller, trowel. HYDRO BAN may also be applied with airless spraying equipment, please contact LATICRETE for further information. All areas must have two coats to ensure waterproofing capabilities. When using a paint roller, ensure substrate will not show through HYDRO BAN if coated with 0.6 mm – 0.9 mm of dried membrane. Colour changes from a light sage to olive green when fully cured.

INSTALLATIONS

Surface Preparation

Surface temperature must be 10 – 32°C during application and for 24 hours after installation. All substrates must be structurally sound, clean and free of airborne contaminants, salt, dirt, oil, grease, paint, laitance, efflorescence, concrete sealers or curing compounds. New concrete slabs shall be damp cured and a minimum of 14 days old before application. Make rough or uneven concrete smooth to a wood float or fine textured finish with a LATICRETE Underlayment. Do not level with gypsum or asphalt based products. Maximum deviation in plane should meet the requirements of the proposed finish. Dampen hot, dry surfaces and sweep off excess

water – installation may be made on a damp surface. All surfaces should be wiped down with a damp sponge to clean and hydrate the surface immediately prior to application. Apply LATAPOXY Moisture Shield to all swimming pool installations prior to the installation of HYDRO BAN. Other external installations may require the use of LATAPOXY Moisture Shield as dictated by site conditions.

Pre-Treat Cracks & Joints

Fill all substrate cracks[^], cold joints, and control joints to a smooth finish using a LATICRETE latex fortified thin-set mortar, HYDRO BAN[®] Adhesive and Sealant or HYDRO BAN Fillet and Sealant. Alternatively, a liberal coat^{^^} of HYDRO BAN[®] applied with a paint brush or trowel may be used to fill in non structural joints and cracks less than 3mm. Apply a liberal coat^{^^} of HYDRO BAN approximately 200 mm wide over substrate cracks, cold joints, and control joints using a paint brush or roller (heavy napped roller cover).

Pre-Treat Coves and Floor/Wall Transitions

Fill all substrate coves and floor/wall transitions to a smooth finish at changes in plane using a LATICRETE latex fortified thin-set mortar. Alternatively or as required by substrate manufacturers, detail any joint void and profile with comprehensible foam or polystyrene void fillers to provide suitable backing for fillets. Apply a 12mm bond relief fillet or 15mm transition fillet of HYDRO BAN Adhesive and Sealant or HYDRO BAN Fillet and Sealant to joints requiring bond relief or fillet as per AS3740 & AS4654 and allow to dry before detailing the membrane over.

Pre-Treat Drains

Membrane to drainage connections maybe made over securely fixed, recessed puddle flanges or embedded/cast in outlets. Use HYDRO BAN Flange where stack work is cut off flush with concrete substrate level. Flush and fill gaps around flanges and outlets with HYDRO BAN Adhesive & Sealant or HYDRO BAN Fillet and Sealant prior to membrane application. Prepare the approved plastic or metal surfaces as previously stated prior to the application of the liquid. HYDRO BAN can be applied with a paint brush to ensure a minimum 50mm turn down into the outlet. When the first coat has completely dried to the dark olive green colour, apply a second liberal coat[^] of HYDRO BAN liquid and allow to cure.

Where a HYDRO BAN Flange is installed the membrane shall be applied over the top of the integrally fixed flange and be turned down and finished a minimum of 50mm into the flange body. See Detail 4 in TDS1003.

Pre-Treat Penetrations

Pack any gaps around pipes, lights or other penetrations with a suitable LATICRETE latex-fortified thin-set adhesive or sealant and allow to harden/ curing (e.g. LATICRETE 254 Platinum Adhesive, HYDRO BAN Adhesive & Sealant or HYDRO BAN Fillet and Sealant as required). Apply a liberal coat[^] of liquid onto and around penetration. When the first coat has completely dried to the dark olive green colour, apply a second liberal coat[^] of HYDRO BAN liquid and allow to cure, see detail 6 in TDS1003. As an option, particularly in immersed installations, V out around the penetration and make the surface good with a LATICRETE latex-fortified thin-set. Apply a bead of HYDRO BAN Adhesive & Sealant or HYDRO BAN Fillet and Sealant to seal and create a smooth transition for the membrane at the base of the V. When the sealant has cured, apply a liberal coat[^] of liquid onto and around penetration. When the first coat has completely dried to the dark olive green colour, cover with a second liberal coat[^] of liquid and allow to cure. After the membrane has cured, the V can be filled with a LATICRETE latex-fortified mortar to the desired surface level/finish and allowed to dry. This surface can then be further covered with the HYDRO BAN Waterproof membrane to the correct coverage and thickness. See detail 5 in TDS1003.

Crack Isolation

Crack Isolation (partial coverage) – Crack suppression must be applied a minimum of 3 times the width of the tile or stone being installed. The tile installed over the crack cannot be in contact with the concrete. Follow TDS1003 guidelines for the treatment of the treatment of hairline cracks, shrinkage cracks and saw cut or control joints. Apply a liberal coat^{^^} of HYDRO BAN to a minimum of three times the width of the tile using a paint roller or paint brush and allow to dry. After the first coat has dried to the touch, install second liberal coat^{^^} of HYDRO BAN over the first coat and allow to dry.

Main Application

Insert bond relief or transition fillet as required per AS3740/AS4654 for a Class 3 membrane when doing “wet area work” or “external above-ground work. Use HYDRO BAN Adhesive & Sealant or HYDRO BAN Fillet and Sealant for all bond relief fillets and transition fillets. DO NOT use aromatic solvent based sealants or sealants containing rubber solvents or ketones. Allow any pre-treated areas to dry to the touch. Apply a liberal coat^{^^} of HYDRO BAN with brush or roller over substrate including pre-treated areas and allow to cure (turns dark olive green). Immediately apply another liberal coat^{^^} of HYDRO BAN over the first cured coat of HYDRO BAN. Let topcoat dry to the touch, approximately 1 – 3 hours at 21°C and 50% RH. When last coat has dried to the touch, inspect final surface for pinholes, voids, thin spots or other defects. HYDRO BAN will dry to a dark olive green colour when fully cured. Use additional HYDRO BAN to seal defects.

Protection

Provide protection for newly installed membrane, even if covered with a thin bed ceramic tile, stone or brick installation, against exposure to rain or other water for a minimum of 24 hours at 21°C and 50% RH.

Flood Testing

Allow membrane to cure fully before flood testing. Cold and/or wet conditions will require a longer curing time. For surface and/or ambient temperatures between 10 - 20°C allow more than 48 hours after cure prior to flood testing.

Installing Finishes

Once HYDRO BAN has dried to the touch and is dark olive green, ceramic tile, stone or brick may be installed by the thin bed method with a LATICRETE Latex Thin-Set Mortar or LATICRETE Multipurpose Powder Thin-Set Mortar. Allow HYDRO BAN to cure longer before covering with concrete, thick bed mortar, screeds, toppings, coatings, epoxy adhesives, terrazzo or moisture sensitive resilient or wood flooring. Do not use solvent-based adhesives directly on HYDRO BAN.

[^] Refer to Limitations section for unacceptable cracks.

^{^^} Dry coat thickness is 0.6 mm – 0.9 mm; consumption per coat is -0.4 litre/m²; coverage per coat is -2.5 m²/litre.

Drains & Penetrations

Use LATASIL[™] silicone sealant between protrusion and finished tile to seal space between drain or penetration and finish. Do not use a grout or joint filler mortar.

Control Joints

Ceramic tile, stone and brick installations must include sealant-filled joints over any control joints in the substrate. However, the sealant-filled joints can be offset horizontally by as much as half a tile width from the substrate control joint location to coincide with the grout joint pattern. See Detail 7 & 8 on TDS1003.

Movement Joints

Ceramic tile, stone and brick installations must include provision for expansion at coves, corners, other changes in substrate plane and over any expansion joints in the substrate. Expansion joints in ceramic tile, stone or brickwork are also required at perimeters, at restraining surfaces, at penetrations and at the intervals described in the Australian Standard AS3958.1 Section 5.4.5 & AS 3958.2 Section 4.5 or TCNA detail EJ-171 "Movement Joints – Vertical & Horizontal". Use LATASIL silicone sealant for movement joint construction.

Spray applications of HYDRO BAN

Follow all installation and surface preparation requirements outlined in this document and TDS1003 and TDS1004.

The sprayer being used for the application of HYDRO BAN® should be capable of producing a maximum of 22.8 MPa with a flow rate of 3.6 to 6 LPM using a 0.521 or a 0.631 reversible tip. Keep the unit filled with HYDRO BAN to ensure continuous application of liquid. The hose length should not exceed 30 m in length and 9 mm in diameter.

Apply a continuous HYDRO BAN film with an overlapping spray¹. The wet film has a sage green appearance and dries to a darker olive green colour. When the first coat has dried to a uniform olive green colour, approximately 45 to 90 minutes at 21°C, visually inspect the coating for any voids or pinholes. Fill any defects with additional material and apply the second coat¹ at right angles to the first. The wet film thickness should be checked periodically using a wet film gauge. Each wet coat should be 0.4 mm – 0.6 mm thick. The combined dried coating should be 0.6 mm – 0.9 mm thick.

Check application thickness with a wet film gauge periodically as the HYDRO BAN is being dispensed to ensure that the appropriate thickness and coverage is achieved. Bounce back and overspray will consume more product. To achieve the required film thickness, the coating must be free from pinholes and air bubbles. Do not back roll the spray applied coating. All the HYDRO BAN to cure in accordance with the instructions in this document, TDS1003 and TDS1004 prior to the installation of the tile or stone finish.

It is important to note that areas not scheduled to receive the HYDRO BAN should be masked off and protected from any potential overspray. Observe treatments outlined in this document, TDS1003 and TDS1004 for movement joints.

Cleaning

While wet, HYDRO BAN can be washed from tools with water.

AVAILABILITY AND COST

Availability

LATICRETE and LATAPOXY® materials are available worldwide.

For Distributor information:

Toll Free: 1800 331 012

Telephone: 07 3865 1599

For online distributor information, visit LATICRETE at www.laticrete.com.au

Cost

Contact a LATICRETE Distributor in your area.

MAINTENANCE

LATICRETE and LATAPOXY grouts require routine cleaning with a neutral pH soap and water. All other LATICRETE and LATAPOXY materials require no maintenance but installation performance and durability may depend on properly maintaining products supplied by other manufacturers.

TECHNICAL SERVICES

Technical assistance

Information is available by calling:

Toll Free: 1800 331 012

Telephone: 07 3865 1599

Fax: 07 3865 2250

Technical and safety literature

To acquire technical and safety literature, please visit our website at

www.laticrete.com.au

DISCLAIMER

- The information contained in this document is given in good faith and to the best of our knowledge is true and accurate.
- This information is subject to change without notice and it is the responsibility of the user to obtain up to date and current information.
- The use of this product is beyond our control and LATICRETE is not responsible for any loss or damage arising from the incorrect use of this product.
- Efflorescence is a normal condition of Portland cement and is not covered by any warranty. The use of LATAPOXY 310 Stone Adhesive, LATAPOXY 300 Adhesive, LATAPOXY SP-100, SPECTRALOCK® PRO Premium Grout¹ and SPECTRALOCK 2000IG will not contribute to any noticeable efflorescence.

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¹ United States Patent No.: 6,881,768 (and other Patents).