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. HYDRO BAN bonds directly to a wide variety of substrates.

FEATURES/BENEFITS

- Flood test in 24 hours ¥
- Does not require the use of fabric^
- Bonds directly to metal, PVC and ABS plumbing fixtures only.
- Thin; only 0.020–0.030" (0.5–0.8 mm) thick when cured.
- Changes in color from a light sage to an olive green when cured.
- Anti-fracture protection of up to 1/8" (3 mm) over shrinkage and other non-structural cracks
- "Extra Heavy Service" rating per TCNA performance levels (RE: ASTM C627 Robinson Floor Test)
- Exceeds ANSI A118.10 and A118.12
- IAPMO approved
- Equipped with anti-microbial technology.
- Rapid drying for a faster time to tile.
- Lighter color for ease of inspection
- Safe—no solvents and non-flammable
- Install tile, brick and stone directly onto membrane.
- E-TAG 022 Certified

^ For gaps 3 mm or less see DS 663.5 (US) for complete instructions
¥ Refer to cautions section for more information on curing.

USES

- Interior and exterior
- Swimming pools, fountains, and water features
- Shower pans, stalls, and tub surrounds.
- Industrial, commercial, and residential bathrooms and laundries
- Spas and hot tubs
- Kitchens and food processing areas
- Terraces and balconies over unoccupied spaces
- Countertops and facades
- Steam rooms (when used in conjunction with a vapor barrier)

STANDARDS / CERTIFICATIONS

Applicable Standard
ANSI A118.10 and A118.12

ETAG 022 certified	GREENGUAD CERTIFIED	DCLD CERTIFIED
ETA	GREENGUARD GOLD	DCL PRODUCT CONFORMITY AL SAFAT - GREEN BUILDING Certificate No.CL20020733

See the technical Data for more product approval info.

MANUFACTURER

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United Arab Emirates
Telephone: + 971 7 244 6396
Fax: + 971 7 244 5915
Internet: www.laticrete.me

Packaging

Commercial unit: 18.9 L Pail of liquid

36 commercial units/pallet

Contents in Kg: Net weight: 25.2 Kg.

Gross weight: 26.5 Kg.

Approximate Coverage

Commercial Unit: 250 ft^2 (23.2 m^2)

Suitable Substrates

- Cement Backer Board
- Cement Mortar Bed
- Cement Plaster
- Cement Terrazzo
- Concrete
- Concrete and Brick Masonry
- Poured Gypsum Underlayment
- Self-Leveling and Patching Compounds
- Exterior Glue Plywood (Interior Only)
- Ceramic Tile and Stone
- Gypsum Plaster (Interior use only, non-wet areas)
- Gypsum Wallboard (Interior use only, non-wet areas)

Shelf Life

Factory sealed containers of this product are guaranteed to be of first quality for two (2) years* if stored at conditioned temperature >5°C and <30°C.

Note: Slight separation and settling are common during shelf life and do not affect the product's quality, hence mechanical mixing is recommended prior to usage.

Limitations

- DO NOT bond to OSB, particle board, interior glue plywood, Luan, Masonite® or hardwood surfaces.
- Adhesives/mastics, mortars and grouts for ceramic tile, pavers, brick and stone are not replacements for waterproofing membranes. When a waterproofing membrane is required, use HYDRO BAN®
- Do not use as a primary roofing membrane over occupied space. For more information in installation of tile over wood decks, or, over occupied or finished spaces please refer to TDS 157 “Exterior Installation of Tile and Stone Over Occupied Space.”
- Do not use over dynamic expansion joints, structural cracks or cracks with vertical differential movement (See Installation Instructions, DS 663.5 for complete instructions).
- 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 waterproofing membranes in limited areas (e.g. solely at the waterline) in submerged applications is not recommended.
- Do not use over cracks >3 mm in width.
- Do not use as a vapor 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 vapor transmission, rubber solvents or ketones.
- Must be covered with ceramic tile, stone, brick, dry pack thick bed mortar beds, terrazzo or other traffic-bearing finish. Use protection board for temporary cover.
- Obtain approval by local building code authority before using product in shower pan applications.
- Do not install directly over single layer wood floors, plywood tubs/showers/fountains or similar constructs.
- Not for use beneath cement or other plaster finishes. Consult with plaster manufacturer for their recommendations when waterproofing membrane is required under plaster finishes.
- Not for use under self-leveling underlayments or decorative wear surfaces.

Note: 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.

Cautions

Consult SDS for more safety information.

- Allow membrane to cure fully flood test prior to applying tile or stone, typically 24 hrs. at 10°C - 21°C at 70% RH and 12 hrs. above 21°C at 50% RH (before flood testing)
- Maximum amount of moisture in the concrete/mortar bed substrate should not exceed 5 lbs/1,000 ft^2 (283 µg/s m^2)/ 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.
- For white and light-colored marbles use a white Latex Portland Cement Thin Set Mortar.
- For green and moisture sensitive marble, agglomerates and resin backed tile and stone use LATAPOXY® 300 Adhesive (refer to DS 633.0).
- Wet coat thickness is 0.015 to 0.022" (0.4 to 0.6 mm) per coat.
- Use a wet film thickness gauge to check thickness.
- Allow wet mortars to cure for 72 hours at 21°C prior to installation.
- Protect from exposure to traffic or water until fully cured.
- will go from a light sage green to a darker olive green when fully cured. The second coat should not be applied until the first coat is fully cured. All flood test times should be after the second coat is fully cured with no light sage

areas showing.

TECHNICAL DATA

Approvals / Certifications

- ICC Evaluation Service Report ESR-2417
- IAPMO/Uniform Plumbing Code File No.3524
- Los Angeles Board of Building and Safety Commissioners File Number: M-070162
- City of Philadelphia Plumbing Advisory Board Case Number: 4624
- City of Tampa Construction Services Division
- ETAG 022 certified

VOC/LEED Product Information

GREENGUARD: This product has been certified for Low Chemical Emissions (ULCOM/GG UL2818) under the UL GREENGUARD Certification Program for Chemical Emissions for Building Materials, Finishes and Furnishings (UL 2818 Standard) by UL Environment

DCLD: This product has been certified for Low Emitting Materials by Dubai Central Laboratory Department (DCLD) of Dubai Municipality. No.CL20020733: 2017 Al Sa'fat Dubai Green Building Evaluation System.

Specifications are subject to change without notification. Technical data shown in LATICRETE product data sheets and technical data sheets are typical but reflect laboratory test procedures conducted in laboratory conditions. Actual field performance and test results will depend on installation methods and site conditions. Field test results will vary due to critical job site factors

Physical Properties

Physical Property	Test Method	Results
7-day Hydrostatic Test		Pass
7-day Breaking Strength	ANSI A118.10	1.8–2.1 MPa
7-day Water Immersion	ANSI A118.10	0.7–0.8 MPa
7-day Shear Bond	ANSI A118.10	1.4–1.9 MPa
28-day Shear Strength	ANSI A118.10	1.5–2.3 MPa
System Crack Resistance Test	ANSI A118.12.5.4	Pass (High)
Water Vapor Transmission	ASTM E 96–00 E1, Procedure B	0.3602 g/h • M^2 (0.515 grains/h •ft^2)
Water Vapor Permeance	ASTM E 96–00 E1, Procedure B	1.247 perms 71.21 (ng/Pa • s • m^2)
System Performance	ANSI A118.10; ASTM C627; TCA Rating	Cycles 1–14 "Extra Heavy"
Potability of Water Applicable to Waterproofing Systems	NBR 12170:2009 (Technical Norm from Brazil)	Pass
Tensile Strength for Elongation	ASTM D751	250%
Thickness (Dried)		0.5–0.8 mm (20–30 mils)

The data in the above table shall be used by the Project Design Professional to determine suitability, placement, building code conformance and over-all construct appropriateness of a given installation assembly.

Time to Tile

Substrate	Time to Tile (min.)****
Concrete	50
Cement Board	30
Fiber Cement Underlayment	15

****After the second coat is applied at 21°C and 50% RH. The time to tile will vary depending on substrate, temperature and relative humidity.

Working Properties

can be applied using a paint brush, roller or trowel. All areas must have two coats to ensure waterproofing capabilities. When using a paint roller, substrate will not show through HYDRO BAN® if coated with 0.5 – 0.8 mm of dried membrane. The color changes from a light sage to olive green **when fully cured.**

INSTALLATION

Refer to DS 663.5 for complete installation instructions prior to using product

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 dirt, oil, grease, paint, laitance, efflorescence, concrete sealers or curing compounds. Make rough or uneven concrete smooth to a wood float or better finish with a underlayment. Do not level with asphalt-based products. Maximum deviation in plane must not exceed 1/4" in 10 ft (6 mm in 3 m) with no more than 1/16" in 1 ft (1.5 mm in 0.3 m) variation between high spots. Dampen hot, dry surfaces and sweep off excess water— installation may be made on a damp surface. See DS 663.5 for information on installation over concrete.

1. Surfaces must be structurally sound, stable and rigid enough to support ceramic/stone tile, think brick and similar finishes. Installer must verify that deflection under all live, dead and impact loads of interior plywood floors does not exceed industry standards of L/360 for ceramic tile and brick or L/480 for stone installations and L/600 for all exterior veneer applications where L=span length.
2. Minimum construction for interior plywood floors. **SUBFLOOR:** 15 mm (5/8") thick exterior glue plywood, either plain with all sheet edges blocked or tongue and

groove, over bridged joints spaced 400mm (16") o.c. maximum: fasten plywood 150 mm (6") o.c. along sheet ends and 200 mm (8") o.c. along intermediate supports with 8d ring-shank, coated or hot dip galvanized nails (or screws); allow 3 mm (1/8") between sheet ends and 6 mm (1/4") between sheets edges; all sheet ends must be supported by a framing member; glue sheets to joints with construction adhesive.

UNDERLAYMENT: 15 mm (5/8") thick exterior glue plywood fastened 6" (150 mm) o.c. along sheet ends and 200 mm (8") o.c. in the panel field (both directions) with 8d ring-shank, coated or hot dip galvanized nails (or screws); allow 1/8" (3 mm) to 6 mm(1/4") between sheets and 6 mm (1/4") between sheet edges and any abutting surfaces; offset underlayment joints from joints in subfloor and stagger joints between sheet ends; glue underlayment to subfloor with construction adhesive. Refer to Technical Data Sheet 152 “Bonding Ceramic Tile, Stone or Brick Over Wood Floors” for complete details.

Bonding to TCNA Compliant Poured Gypsum Underlayment Poured gypsum-based underlayments must meet TCNA requirements for compressive strength and the performance requirements of ASTM C627 for the anticipated service level designated by the design professional. Poured gypsum underlayment thickness and application varies, consult the manufacturer for specific recommendations. The underlayment must be dry and properly cured following the manufacturer's recommendations to achieve a permanent installation. Surfaces to be covered must be clean, structurally sound and meet the maximum allowable deflection standard of L/360 for ceramic tile and L/480 for stone under total anticipated load. Expansion joints must be installed in accordance with ANSI/TCNA guidelines. Prime all surfaces to receive HYDRO BAN® with properly applied manufacturer's sealer or with a primer coat of HYDRO BAN, consisting of 1 part HYDRO BAN diluted with 2 parts clean tap water. In a clean pail, mix at low speed to obtain a homogeneous solution. The primer can be brushed, rolled or sprayed to achieve an even coat. Apply the primer coat to the floor at a rate of 6.1 to 7.5 M2 / L of diluted HYDRO BAN. Allow the primer coat to dry completely (approximately 24 hrs., depending on substrate and air temperature and humidity). When dry apply two full coats of HYDRO BAN to the primed area following the guidelines in this data sheet and DS 663.5 HYDRO BAN Installation Instructions.

Pre-Treat Cracks & Joints
Fill all substrate cracks, cold joints, and control joints to a smooth finish using a Latex Fortified Thin-Set. 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. 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). 150 mm Waterproofing Anti-Fracture Fabric can be used to pretreat cracks, joints, curves, corners, drains and penetrations with HYDRO BAN.

Pre-Treat Coves and Floor/Wall Transitions
Fill all substrate coves and floor / wall transitions to a smooth finish and changes in plane using a latex fortified thin-set mortar. Alternatively, a liberal coat^^ of HYDRO BAN applied with a paint brush or trowel may be used to fill in cove joints and floor/wall transitions < 3 mm. Apply a liberal coat^^ of HYDRO BAN approximately 200 mm wide over substrate coves and floor/wall transitions using a paint brush or roller (heavy napped roller cover).

Pre-Treat Drains: Drains must be of the bonding flange or clamping ring type, with weepers and as per ASME A112.6.3. Apply a liberal coat^^ of HYDRO BAN Waterproofing Membrane liquid around and over the bonding flange or the bottom half of drain clamping ring. Cover with a second coat^^ of HYDRO BAN. When dry, apply a LATASIL™ bead where the HYDRO BAN meets the drain throat. Install top half of drain clamping ring.

Pre-Treat Penetrations: Allow for a minimum 3 mm space between drains, pipes, lights or other penetrations and surrounding ceramic tile, stone or brick. Pack any gaps around pipes, lights or other penetrations with a Latex fortified thin-set mortar. Apply a liberal coat^^ of HYDRO BAN liquid around penetration opening. Cover with a second coat^^ of HYDRO BAN. Bring HYDRO BAN up to level of tile or stone. When dry, seal flashing with LATASIL.

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 TCNA Method F125 for 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 (3) 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 a second liberal coat^^ of HYDRO BAN over the first coat.

As an alternative, Apply a liberal coat^^ of HYDRO BAN liquid, 3 times the width of the tile over the crack using a paint roller

or paint brush and immediately apply the 150mm wide Waterproofing / Anti-Fracture Fabric into the wet liquid over the crack. Press firmly with brush or roller to allow complete "bleed through" of liquid. Immediately apply another liberal coat^^ of HYDRO BAN liquid over the fabric and allow to dry. When the first treatment has dried, apply a liberal coat^^ of HYDRO BAN over the first wide coat, using a paint roller or paint brush, and allow to dry. Treat closest joint to the crack, saw cut, or cold joint in the tile or stone installation with LATASIL.

^^ Wet coat thickness is 15 – 22 mils (0.4 – 0.6 mm) consumption per coat is -0.01/gal/ft²

(-0.4ℓ/m²); coverage per coat is – 100 ft²/gal (-2.5m²/ℓ). Use wet film gauge to check thickness.

Main Application

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. Apply another liberal coat^^ of HYDRO BAN® over the first coat of HYDRO BAN. Let topcoat dry to the touch, approximately 1–2 hours at 21°C and 50% RH. When the last coat has dried to the touch, inspect final surface for pinholes, voids, thin spots or other defects. HYDRO BAN will dry to an olive-green color when it's dry to touch. Use additional HYDRO BAN to seal defects.

Movement Joints

See HYDRO BAN Installation Instructions DS 663.5.

Note: Apply a liberal coat^^ of HYDRO BAN, approximately 200mm wide over the areas. Then embed and loop the 150 mm wide Waterproofing/Anti-Fracture Fabric and allow to bleed through. Then top coat with a second coat^^ of HYDRO BAN.

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 12 hrs above 21°C at 50% RH and 24 hrs at 10 - 21°C at 70% RH.

Flood Testing

Allow membrane to cure fully before flood testing, typically 24 hrs at 10 - 21°C at 70%RH and 12 hrs above 21°C at 50% RH. Cold and/or wet conditions will require a longer curing time.

Installing Finishes

Once HYDRO BAN has dried to the touch, ceramic tile, stone or brick may be installed by the thin bed method with a Latex Thin-Set Mortar. Allow HYDRO BAN to cure 2 - 4 hrs. at 21 °C at 50% RH before covering with, thick bed mortar, epoxy adhesives, terrazzo or moisture sensitive resilient or wood flooring. Do not use solvent-based adhesives directly on HYDRO BAN.

Drains & Penetrations

Use LATASIL and foam backer rod to seal space between drain or penetration and finish. Do not use 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 one tile width from the substrate control joint location to coincide with the grout joint pattern.

Movement Joints

Ceramic tile, stone and thin brick installations must include 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 Tile Council of North America, Inc. (TCNA) Handbook Installation Method EJ171. Use LATASIL and backer rod.

Spray Application of HYDRO BAN®

Follow all installation and surface preparation requirements outlined in this document and DS 663.5 and TDS 410.

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 03.6 to 6.0 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 spray^^. The wet film has a sage green appearance and dries to a darker olive-green color. When the first coat has dried to a uniform olive-green color, 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 coat^^ 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 – 0.6 mm thick. The combined dried coating should be 0.5 – 0.8 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.

Allow the HYDRO BAN to cure in accord with the instructions in this document, DS 663.5 and TDS 410 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 taped off and protected from any potential overspray. Expansion and movement joints should be honored and treated as outlined in this document, DS 663.5 and TDS 410.

^^ Wet coat thickness is 15 – 22 mils (0.4 – 0.6 mm) consumption per coat is -0.01/gal/ft² (-0.4 ℓ/m²); coverage per coat is – 100 ft²/gal (-2.5m²/ℓ). Use wet film gauge to check thickness.

AVAILABILITY AND COST

Availability

LATICRETE® materials are available worldwide. For distributor information, please contact LATICRETE Telephone: For on-line distributor information, visit www.laticrete.me.com

Cost

Contact a LATICRETE® closer distributor to obtain complete information and cost.

WARRANTY

The supplier warrants that LATICRETE Hydro Ban® waterproofing Membrane is free from manufacturing defects and will not break down, deteriorate or disintegrate under normal usage for a period of two (2) years from manufacturing of the product subject to the terms and conditions stated in LATICRETE Product Warranty

MAINTENANCE

Non-finish LATICRETE and LATAPOXY installation materials require no maintenance but installation performance and durability may depend on properly maintained products supplied by other manufacturers.

TECHNICAL SERVICES

Technical assistance

For information contact:
enquiry@laticrete.me

Technical and safety literature

To obtain technical and safety literature, please visit our website at: http://me.laticrete.com

Warning

The information and the instructions in the data sheet, although based on knowledge gained through years of applications, are indicative. LATICRETE®, unable to directly control the installation conditions and modalities of application of products, do not assume any liability arising from their implementation. Those who want to use the LATICRETE® products must conduct adequate tests to determine the site specifications. The results shown are typical but reflect test procedures used. Actual field performance will depend on installation method and site conditions.