HYDRO BAN® 1

DS-65452-0925

Globally Proven
Construction Solutions

1. PRODUCT NAME
HYDRO BAN® 1

2. MANUFACTURER
LATICRETE International, Inc.
1 LATICRETE Park North
Bethany, CT 06524-3423 USA
Telephone: +1.203.393.0010, ext. 1235
Toll Free: 1.800.243.4788, ext. 1235
Fax: +1.203.393.1684
Website: laticrete.com

3. PRODUCT DESCRIPTION
HYDRO BAN 1 is a single component self-curing liquid rubber polymer that is applied in a single coat and forms a flexible, seamless waterproofing membrane. HYDRO BAN 1 is a thin, load bearing waterproofing/crack isolation membrane with extreme performance. HYDRO BAN 1 is specificly designed to handle a wide variety of environmental/substrate conditions, such as substrate temperatures as low as 35°F (2° C) and also be used in steam showers and steam rooms. HYDRO BAN 1 does not require the use of fabric in the field, coves or corners. HYDRO BAN 1 bonds directly to a wide variety of substrates. It features a hi-vis green color for enhanced visibility and easier lay-out. Equipped with anti-mcrobial Protection

Uses
- Interior and exterior
- Swimming pools, fountains and water features
- Shower pans, stalls and tub surrounds
- Steam rooms and steam showers
- 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

Advantages
- Single-coat, single-step installation simplifies waterproofing compared to traditional sheet or liquid membranes.
- Self-gauging trowel application ensures correct thickness every time — no guesswork, no extra tools.
- Ready for flood testing in just 2 hours after curing thanks to rapid curing technology.
- Color-changing cure indicator provides visual confirmation when time to flood testing can begin.
- Bonds to all common substrates for full-system versatility on a wide range of installations.
- Hi-Vis color improves visibility during application, even in low-light conditions.
- Extra Heavy Robinson Rating delivers lasting durability, even in demanding, high-traffic areas.
- Meets or exceeds ANSI A118.10 and A118.12 for waterproofing and crack isolation — no fabric required.
- ASTM E96 rated for use in steam showers and steam rooms.
- Cures effectively in cold conditions, on substrates as low as 35°F (2°C), for reliable year-round performance.
- Reduces installer strain and material waste with fewer steps and no need for rollers, trays, or extra coats.
- IAPMO and ICC tested and certified to meet applicable building codes.

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 Wallboard (Interior use only, non-wet areas)
- Gypsum Plaster (Interior use only, non-wet areas)
- HYDRO BAN Board

Packaging
Packaging
1 Gallon - 4 x 1 gal (3.8 L) pails of liquid packed in a carton (30 cartons/pallet) 3.5 Gallon - (13.2 L) pail liquid (48 full units/pallet)
5 Gallon - (18.9 L) pail liquid (36 commercial units/pallet)

Approximate Coverage
Coverage
1 Gallon - 50 ft^2 (4.6 m^2)
3.5 Gallon - 175 ft^2 (16.3 m^2)
5 Gallon - 250 ft^2 (23.2 m^2)

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® 1.
- 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.
- 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 >1/8" (3 mm) in width.
- 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 (non-submerged applications), 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.
- Follow all applicable local building code having jurisdiction.
- 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.
- 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 safety information.
- Allow membrane to cure fully before flood testing (typically 24 hours at 35°F – 69°F (2°C – 21°C) and 70% RH and 2 hours after full color change at 70°F (21°C) or higher and 50% RH); flood test prior to applying tile or stone.
- HYDRO BAN 1 will go from a light to a darker shade when fully cured. All flood test times should be after the coat is fully cured with no lighter green areas showing.
- Maximum amount of moisture in the concrete substrate should not exceed 5 lbs/1,000 ft^2 (283 µg/s m^2)/24 hrs per ASTM F-1869 or 85% relative humidity per ASTM F-2170 as measured with moisture probes.
- Protect finished work from traffic and /or added water / moisture 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).
- Wet coat thickness is 0.03 to 0.04" (0.8 to 1.0 mm) 30m to 40 mils. Use a wet film thickness gauge to check thickness.
- Allow wet mortars to cure for 72 hours at 70°F (21°C) prior to installing HYDRO BAN 1.
- After application the time to tile will vary depending on substrate, temperature and relative humidity.
- Sanding or screening may be needed when installing over mortar beds or self-leveling underlayments to remove laitance, loose material, etc.

4. TECHNICAL DATA

Physical Properties

Physical Property	Test Method	HYDRO BAN® 1
7-day Hydrostatic Test	ANSI A118.10	Pass
7-day Breaking Strength	ANSI A118.10	265–300 psi (1.8–2.1 MPa)
7-day Water Immersion	ANSI A118.10	95–175 psi (0.7–1.17 MPa)
7-day Shear Bond	ANSI A118.10	200–275 psi (1.4–1.9 MPa)
28-day Shear Strength	ANSI A118.10	215–345 psi (1.5– 2.3 MPa)
System Crack Resistance Test	ANSI A118.12.5.4	Pass (High)
Water Vapor Permeance	ASTM E 96 Procedure E	0.25 perms
System Performance	ANSI A118.12; ASTM C627; TCA Rating	cycles 1–14 "Extra Heavy"
Thickness (Dried)		20–30 mils (0.5–0.8 mm)

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.

Substrate	Time to Tile (min.)*
Concrete	60
Cement Board	40
Fiber Cement Underlayment	20

*After application coat is applied at 70°F (21°C) and 50% RH. The time to tile will vary depending on substrate, temperature and relative humidity.

Working Properties

HYDRO BAN® 1 can be applied using a paint brush or trowel. All areas must be fully coated to stated application thickness to ensure waterproofing capabilities. When using a 3/16" V-Notch Trowel the substrate will not show through HYDRO BAN 1 if coated with 0.020 – 0.030" (0.4 – .5 mm) of dried membrane. Color changes from a lighter to a darker shade when fully cured.

Specifications subject to change without notification. Results shown are typical but reflect test procedures used. Actual field performance will depend on installation methods and site conditions.

5. INSTALLATION

- **Working Properties**

  HYDRO BAN® 1 can be applied using a paint brush or trowel. All areas must have 1 coat in the range 0.030 – 0.040" measured with wet film gauge to ensure waterproofing capabilities. When using a paint brush or trowel the substrate will not show through HYDRO BAN 1 if coated with 0.020 – 0.030" (0.4 - 0.5 mm) of dried membrane. Color changes from a lighter to a darker shade of green when fully cured.

- **Surface Preparation**

  Surface temperature must be 35°F – 90°F (2 – 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 an 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.

  1. Surfaces must be structurally sound, stable and rigid enough to support ceramic/stone tile, thin 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:** 5/8" (15 mm) thick exterior glue plywood, either plain with all sheet edges blocked or tongue and groove, over bridged joints spaced 16" (400 mm) o.c. maximum; fasten plywood 6" (150 mm) o.c. along sheet ends and 8" (200 mm) o.c. along intermediate supports with 8d ring-shank, coated or hot dip galvanized nails (or screws); allow 1/8" (3 mm) between sheet ends and 1/4" (6 mm) between sheets edges; all sheet ends must be supported by a framing member; glue sheets to joints with construction adhesive.
  UNDERLAYMENT: 5/8" (15 mm) thick exterior glue plywood fastened 6" (150 mm) o.c. along sheet ends and 8" (200 mm) 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 1/4" (6 mm) between sheets and 1/4" (6 mm) 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 1 with properly applied manufacturer's sealer or with a primer coat of HYDRO BAN 1, consisting of 1 part HYDRO BAN 1, diluted with 4 parts clean, cool 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 250 to 300 ft^2/gallon (6.1 to 7.5 M^2/L) of diluted HYDRO BAN 1. Allow the primer coat to dry completely (approximately 24 hrs., depending on substrate and air temperature and humidity). When dry apply 1 full coat of HYDRO BAN 1 to the primed area following the guidelines in this data sheet.

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 1 applied with a paint brush or 3/16" V-Notch trowel may be used to fill in non-structural joints and cracks. Apply a liberal coat^^ of HYDRO BAN 1 approximately 8" (200 mm) wide over substrate cracks, cold joints, and control joints using a paint brush or 3/16" V-Notch trowel. 6" (150 mm) Waterproofing/Anti-Fracture Fabric can be used to pretreat cracks, joints, curves, corners, drains and penetrations with HYDRO BAN 1.

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 1 applied with a paint brush or 3/16" V-Notch trowel (afterward knocking down the ridges with the flat side of the trowel or grout float) may be used to fill in cove joints and floor/wall transitions <1/8" (3 mm). Apply a liberal coat^^ of HYDRO BAN 1 approximately 8" (200 mm) wide over substrate coves and floor/wall transitions using a paint brush or trowel. This type usage also applies for steam showers and steams rooms.

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 1 Waterproofing Membrane liquid around and over the bonding flange or the bottom half of drain clamping ring. When dry, apply a LATASIL™ bead where the HYDRO BAN 1 meets the drain throat. Install top half of drain clamping ring.

Pre-Treat Penetrations

Allow for a minimum 1/8" (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 1 liquid around penetration opening. Bring HYDRO BAN 1 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 1 to a minimum of three (3) times the width of the tile using a 3/16" V-Notch trowel or paint brush and allow to dry.

As an alternative; Apply a liberal coat^^ of HYDRO BAN 1 liquid, 3 times the width of the tile over the crack using a 3/16" V-Notch trowel (afterward knocking down the ridges with the flat side of the trowel or grout float) or paint brush and immediately apply the 6" (150mm) wide Waterproofing/Anti-Fracture Fabric into the wet liquid over the crack. Press firmly with brush or the flat side of the 3/16" V-Notch trowel to allow complete “bleed through” of liquid. When the treatment has dried, apply a liberal coat^^ of HYDRO BAN 1 to over the first wide coat, using a 3/16" V-Notch trowel (afterward knocking down the ridges with the flat side of the trowel or grout float) or paint brush, and allow to dry. Use LATASIL and backer rod to treat closest joint to the crack, saw cut, or cold joint in the tile or stone installation with an expansion joint per Tile Council of North America, Inc. (TCNA) Handbook Installation Method EJ171.

^^ Wet coat thickness is 30 – 40 mils (0.8 – 1 mm) consumption per coat is -0.02/gal/ft² (-0.8m²/L);

Main Application
Allow any pre-treated areas to dry to the touch. Apply a liberal coat^^ of HYDRO BAN 1 with brush or 3/16" V-Notch trowel (afterward knocking down the ridges with the flat side of the trowel or grout float) over substrate including pre-treated areas. Let the coat dry to the touch, approximately 2–3 hours at 70°F (21°C) and 50% RH. When it is dry to the touch, inspect final surface for pinholes, voids, thin spots or other defects. HYDRO BAN 1 will turn a darker green when it's dry to touch. Use additional HYDRO BAN 1 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 2 hours at 70°F (21°C) and 50% RH.

Flood Testing
Allow membrane to cure fully before flood testing, typically 2 to 3 hours after final cure at 70°F (21°C) and 50% RH. Cold and/or wet conditions will require a longer curing time. For temperatures 35°F – 69°F (2 – 21°C) allow 24 hours after final cure prior to flood testing.

Installing Finishes
Once HYDRO BAN 1 has dried to the touch, ceramic tile, stone or brick may be installed ANSI A118.4 or A118.15 latex cement mortar. Allow HYDRO BAN 1 to cure 2 to 3 hours at 70°F (21°C) and 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 1.

Drains & Penetrations
Use LATASIL and foam backer rod 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 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. Note: Apply a liberal coat^^ of HYDRO BAN 1 approximately 8" (200 mm) wide over the areas. Then embed and loop the 6" (150 mm) wide Waterproofing/Anti-Fracture Fabric and allow to bleed through.

6. AVAILABILITY AND COST

Availability
LATICRETE materials are available worldwide.

For Distributor Information, Call:
Toll Free: 1.800.243.4788
Telephone: +1.203.393.0010
For on-line distributor information, visit LATICRETE at **laticrete.com**

Cost
Contact a LATICRETE Distributor in your area.

7. WARRANTY

See 10. FILING SYSTEM:
- 1 Year Product Warranty (US) (English)
- 5 Year System Warranty (US) (English)
- 10 Year System Warranty (US) (English)
- 15 Year System Warranty for Steel or Wood Exterior Facades (US) (English)
- 25 Year System Warranty (US) (English)
- Lifetime System Warranty (US) (English)

8. MAINTENANCE

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

9. TECHNICAL SERVICES

Technical Assistance
Information is available by calling the LATICRETE Technical Service Hotline:
Toll Free: 1.800.243.4788, ext. 1235
Telephone: +1.203.393.0010, ext. 1235
Fax: +1.203.393.1948

Technical and Safety Literature
To acquire technical and safety literature, please visit our website at **laticrete.com**.

10. FILING SYSTEM

Additional product information is available on our website at laticrete.com. The following is a list of related documents:
- DS 230.13: LATICRETE Product Warranty
- DS 230.05: LATICRETE 5 Year System Warranty
- DS 230.10LATICRETE 10 Year System Warranty
- DS 230.15: LATICRETE 15 Year System Warranty for Steel or Wood Framed Exterior Facades
- DS 025.0: LATICRETE 25 Year System Warranty
- DS 230.99: LATICRETE Lifetime System Warranty

- DS 633.0: LATAPOXY 300 Adhesive
- DS 6200.1: LATASIL™
- TDS 152: “Bonding Ceramic Tile, Stone or Brick Over Wood Floors
- TDS 157: “Exterior Installation of Tile and Stone Over Occupied Space.”

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