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 and bonds directly to a wide variety of substrates. HYDRO BAN is a single component self-curing liquid rubber polymer equipped with Microban® antimicrobial technology that forms a flexible, seamless waterproofing membrane.

FEATURES/BENEFITS

▪ Allow for flood testing in 2 hours at 21°C or higher (refer to Cautions section for more information on curing)
▪ Does not require the use of fabric (for gaps 3 mm or less)
▪ Thin; only 0.5–0.8 mm thick when cured
▪ Bonds directly to metal PVC and ABS plumbing fixtures
▪ Anti-fracture protection of up to 3 mm over shrinkage and other non-structural cracks
▪ “Extra Heavy Service” rating per TCNA performance levels (RE: ASTM C627 Robinson Floor Test)
▪ Changes in colour from a light sage to an olive green when cured
▪ Equipped with Microban® antimicrobial technology to protect the treated article
▪ Rapid drying for a faster time to tile – walkable after 2 hours (at 21°C / 50% RH)
▪ Exceeds ANSI A118.10 and A118.12
▪ Conforms to EN 14891 DM OP
▪ IAPMO approved
▪ Install tile, thin brick and stone directly onto membrane
▪ Lighter colour for ease of inspection
▪ No solvents and non-flammable

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 food processing spaces
▪ Countertops and facades
▪ Steam rooms (when used with a vapour barrier)

STANDARDS/CERTIFICATIONS

EN 14891, DM OP
ETAG 022
ICC Evaluation Service report ESR-2417
IAPMO/Uniform Plumbing Code File No.3524
Quality Standards
ISO 9001:2008 Quality Management System
VOCLEED Product Information
This product has been certified for Low Chemical Emissions (UL.COM/GS UL2818) under the UL GREENGUARD certification program for Chemical Emissions for Building Materials, Finishes and Furnishings (UL 2818 Standard) by UL Environment.
EC1 Plus
ÉMISSIONS DANS L’AIR INTÉRIEUR

MANUFACTURER

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Datasheets are subject to change without notice. For the latest revision, visit www.Laticrete.eu.
Suitable Substrates
- Cement Backer Board
- Cement Mortar Bed
- Cement Plaster
- Cement Terrazzo
- Concrete
- Concrete and Brick Masonry
- Self-Levelling and Patching Compounds
- Exterior Glue Plywood (Interior Only)
- Gypsum Wallboard
- Ceramic Tile and Stone

Packaging
Mini Unit
5 kg pails of liquid; 100 pails per pallet.
Commercial Unit
20 kg pails of liquid; 36 pails per pallet.

Consumption
Approx. 0.95 kg/m² with two coats

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 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 bond to OSB, particle board, interior glue plywood, luan, Masonite® or hardwood surfaces.
- DO NOT use over dynamic expansion joints, structural cracks or cracks with vertical differential movement (See HYDRO BAN 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 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.
- 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.
- 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-levelling 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.
- Conduct a small test with product before applying to entire area.
- Allow membrane to cure fully (typically 24 hours at 10°C – 21°C and 70% RH; flood test prior to applying tile or stone (typically 2 hours at 21°C or higher and 50% RH before flood testing).
- Maximum amount of moisture in the concrete substrate should not exceed 3%
- During cold weather, protect finished work from traffic until fully cured.
- Wet coat thickness is 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 installing HYDRO BAN. Allow HYDRO BAN a minimum 2 hours cure at 21°C prior to flood testing in these conditions.
- Protect from exposure to traffic or water until fully cured.
- HYDRO BAN 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.
- After second coat is applied at 21°C and 50% RH, the time to tile will vary depending on substrate, temperature and relative humidity.
- On very absorbent substrates, substrate may need to be pre-treated with PRIMER PLUS, PRIMER SUPERIOR, or a primer coat of HYDRO BAN consisting of 1-part HYDRO BAN and 4-parts clean water.
- HYDRO BAN does not have any hazard classification according to directive 99/45 / CE
- Keep out of reach of children
- In case of contact with eyes and skin, wash abundantly with water.
**TECHNICAL DATA**

**Physical & Performance Properties**

<table>
<thead>
<tr>
<th>Consistency:</th>
<th>thick liquid</th>
</tr>
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<tbody>
<tr>
<td>Color:</td>
<td>light green</td>
</tr>
<tr>
<td>Density:</td>
<td>1.36 Kg/L</td>
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<tr>
<td>Application Temperature:</td>
<td>+10°C to +30°C</td>
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**Substrate**

<table>
<thead>
<tr>
<th>Substrate</th>
<th>Approximate Drying Time**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete</td>
<td>50 minutes</td>
</tr>
<tr>
<td>Cement Board</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Fibre Cement Underlayment</td>
<td>15 minutes</td>
</tr>
</tbody>
</table>

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

**Surface Preparation**

Surface temperature must be between 10 and 30°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 with a wood float or better finish with a LATICRETE mortar. Do not level with gypsum- or asphalt-based products.

Maximum deviation in plane must not exceed 6 mm in 3 m with no more than 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.

   a) **SUBFLOOR:** 15 mm thick exterior glue plywood, either plain with all sheet edges blocked or tongue and groove, over bridged joints spaced 400 mm o.c. maximum; fasten plywood 150 mm o.c. along sheet ends and 200 mm o.c. along intermediate supports with 8d ring-shank, coated or hot dip galvanized nails (or screws); allow 3 mm between sheet ends and 6 mm between sheet edges; all sheet ends must be supported by a framing member; glue sheets to joints with construction adhesive.

   b) **UNDERLAYMENT:** 15 mm thick exterior glue plywood fastened 150 mm o.c. along sheet ends and 200 mm o.c. in the panel field (both directions) with 8d ring-shank, coated or hot dip galvanized nails (or screws); allow 3 mm to 6 mm between sheets and 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.

**Pre-Treat Cracks & Joints**

Fill all substrate cracks, cold joints, and control joints to a smooth finish using a LATICRETE 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.

**INSTALLATION**

HYDRO BAN® can be applied using a paint brush, roller or trowel. All areas must have two (2) 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. Colour changes from a light sage to olive green when fully cured. Refer to DS 663.5 for complete installation instructions prior to using product.

**Specifications**

- Maximum deviation in plane must not exceed 6 mm in 3 m with no more than 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.
- Minimum construction for interior plywood floors.

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**Surface Preparation**

- Surface temperature must be between 10 and 30°C.
- All substrates must be structurally sound, clean, and free of dirt, oil, grease, paint, laitance, efflorescence, concrete sealers or curing compounds.
- Easily make rough or uneven concrete smooth with a wood float or better finish with a LATICRETE mortar.
- Do not level with gypsum- or asphalt-based products.

**Maximum Deviation**

- In plane must not exceed 6 mm in 3 m with no more than 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.

**Minimum Construction**

- For interior plywood floors:
  - **SUBFLOOR:** 15 mm thick exterior glue plywood, either plain or blocked edges, over bridged joints spaced 400 mm o.c. maximum. Fasten plywood 150 mm o.c. along sheet ends and 200 mm o.c. along intermediate supports with 8d ring-shank, coated or hot dip galvanized nails (or screws). Allow 3 mm between sheet ends and 6 mm between sheet edges; all sheet ends must be supported by a framing member. Glue sheets to joints with construction adhesive.
  - **UNDERLAYMENT:** 15 mm thick exterior glue plywood fastened 150 mm o.c. along sheet ends and 200 mm o.c. in the panel field (both directions) with 8d ring-shank, coated or hot dip galvanized nails (or screws). Allow 3 mm to 6 mm between sheets and 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.

**Pre-Treat Cracks & Joints**

Fill all substrate cracks, cold joints, and control joints to a smooth finish using a LATICRETE 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.

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**Physical Property**

<table>
<thead>
<tr>
<th>Physical Property</th>
<th>Test Method</th>
<th>HYDRO BAN®</th>
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</thead>
<tbody>
<tr>
<td>7-day Hydrostatic Test</td>
<td>ANSI A118.10</td>
<td>Pass</td>
</tr>
<tr>
<td>7-day Breaking Strength</td>
<td>ANSI A118.10</td>
<td>1.8–2.1 MPa</td>
</tr>
<tr>
<td>7-day Water Immersion</td>
<td>ANSI A118.10</td>
<td>0.7–0.8 MPa</td>
</tr>
<tr>
<td>7-day Shear Bond</td>
<td>ANSI A118.10</td>
<td>1.4–1.9 MPa</td>
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<tr>
<td>28-day Shear Strength</td>
<td>ANSI A118.10</td>
<td>1.5–2.3 MPa</td>
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<tr>
<td>System Crack Resistance Test</td>
<td>ANSI A118.12.5.4</td>
<td>Pass (High)</td>
</tr>
<tr>
<td>Water Vapor Transmission</td>
<td>ASTM E 96–00E1 Procedure B</td>
<td>0.3602 g/h • m²</td>
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<td>Water Vapor Permeance</td>
<td>ASTM E 96–00E1 Procedure B</td>
<td>71.21 (ng/Pa • s • m²)</td>
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<tr>
<td>System Performance</td>
<td>ANSI A118.10; ASTM C627; TCA Rating</td>
<td>cycles 1–14 “Extra Heavy”</td>
</tr>
<tr>
<td>Potability of Water Applicable to Waterproofing Systems</td>
<td>NBR 12170:2009 (Technical Norm from Brazil)</td>
<td>Pass</td>
</tr>
<tr>
<td>Tensile Strength for Elongation</td>
<td>---</td>
<td>250%</td>
</tr>
<tr>
<td>Thickness (Dried)</td>
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<td>0.5–0.8 mm</td>
</tr>
</tbody>
</table>

**Specifications**

- Maximum deviation in plane must not exceed 6 mm in 3 m with no more than 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.
- Minimum construction for interior plywood floors.

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**INSTALLATION**

HYDRO BAN® can be applied using a paint brush, roller or trowel. All areas must have two (2) 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. Colour changes from a light sage to olive green when fully cured. Refer to DS 663.5 for complete installation instructions prior to using product.
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 DEKOSIL 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 DEKOSIL. For waterproofing swimming pools, it is essential to use flange accessories.

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. 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 to 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 DEKOSIL.

** Wet coat thickness is 15 – 22 mls (0.4 – 0.6 mm). 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 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.

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 21°C and 50% RH.

Flood Testing

Allow membrane to cure fully before flood testing, typically 2 hours after final cure at 21°C and 50% RH. Cold and/or wet conditions will require a longer curing time. For temperatures 10 – 21°C allow 24 hours after final cure prior to flood testing.

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 LATICRETE Latex Thin-Set Mortar. Allow HYDRO BAN to cure 2 hours at 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.

Drains & Penetrations

Use DEKOSIL 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 penetration. Use DEKOSIL 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 3.6 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). Use wet film gauge to check thickness.

**AVAILABILITY AND COST

Availability
LATICRETE® materials are available worldwide. For distributor information, please contact LATICRETE EUROPE S.r.l.: +39 059557680 info@laticreteeurope.com

For online distributor information, www.laticrete.eu.

Cost
Contact LATICRETE EUROPE S.r.l to obtain complete information and cost.

**WARRANTY

The supplier warrants that the product will not deteriorate under normal conditions and use. The warranty validity of one (1) year. Contact Technical Services for further information.

See 10. FILING SYSTEM on www.laticrete.eu:
- DS 025.0: 25 Year System Warranty
- DS 230.13: 1 Year Product Warranty

**MAINTENANCE

LATICRETE® and LATAPOXY® are products of high quality designed to achieve lasting installations and avoid maintenance, however performance and durability may depend on properly maintaining products, depending of the cleaning products used.