1. PRODUCT NAME
HYDRO BAN®

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 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.

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)

Advantages
- Does not require the use of fabric (For gaps 1/8" (3 mm) or less see DS 663.5 for complete instructions)
- Thin; only 0.020–0.030" (0.5–0.8 mm) thick when cured
- Bonds directly to metal PVC and ABS plumbing fixtures only
- 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)
- Changes in color from a light sage to an olive green when cured
- Equipped with anti-microbial technology to protect the treated article.
- Rapid drying for a faster time to tile
- Exceeds ANSI A118.10 and A118.12
- IAPMO approved
- Install tile brick and stone directly onto membrane
- Lighter color for ease of inspection
- No solvents and non-flammable

Suitable Substrates
- Self-Leveling and Patching Compounds (Interior Applications Only)
- Cement Backer Board (Consult cement backer board manufacturer for specific installation recommendations and to verify acceptability for exterior applications)
- Cement Terrazzo (If skim coated with a Latex Thin-Set Mortar)
- Ceramic Tile & Stone (If skim coated with a Latex Thin-Set Mortar)
- Exterior Glue Plywood (Interior Applications Only)
- Gypsum Wallboard (Interior Applications Only)
- Concrete
- Concrete and Brick Masonry
- Cement Mortar Bed
- Cement Plaster
- Poured Gypsum Underlayment (Interior use only. follow TCNA Guidelines / Methods: F200, RH122, F180)

Packaging
- 4X1GAL (4 X 3.8L) PAIL
- 5GAL (19L) 4XCARTON

Approximate Coverage

<table>
<thead>
<tr>
<th>Unit</th>
<th>Units per pallet</th>
<th>Approximate Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Gallons</td>
<td>36</td>
<td>250 ft²/unit</td>
</tr>
<tr>
<td>4x1 Gallon</td>
<td>30</td>
<td>50 ft²/gal</td>
</tr>
</tbody>
</table>

Shelf Life
Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored at temperatures >32°F (0°C) and <110°F (43°C).
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 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 >1/8" (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 (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-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 more safety information.
- Allow membrane to cure fully (typically 24 hours at 50°F – 69°F (10°C – 21°C) and 70% RH and 2 hours at 70°F (21°C) or higher and 50% RH before flood testing); flood test prior to applying tile or stone.
- Maximum amount of moisture in the concrete substrate should not exceed 5 lbs/1,000 ft² (283 µg/s m²)/24 hrs per ASTM F-1869 or 75% relative humidity per ASTM F-21760 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.

4. TECHNICAL DATA

VOC/LEED Product Information
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.

Approvals
- 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 Adviser board Case Number:4624
- City of Tampa Construction Services Division
- Commonwealth of Massachusetts Board of State Examiners of Plumbers and Gasfitters

Applicable Standard
- ANSI A118.10 and A118.12
or uneven concrete smooth to a wood float or better finish with a concrete sealer or curing compounds. Make rough 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 wood float.

Surface Preparation
Surface temperature must be 50 – 90°F (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 wood float.

5. INSTALLATION

Working Properties
HYDRO BAN® 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 0.020 – 0.030" (0.5 – 0.8 mm) of dried membrane. Color changes from a light sage to olive green when fully cured.

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

Surface Preparation
Surface temperature must be 50 – 90°F (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 wood float.

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

Working Properties

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Property Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substrate</td>
<td>Time to Tile (min.)***</td>
</tr>
<tr>
<td>Concrete</td>
<td>50</td>
</tr>
<tr>
<td>Cement Board</td>
<td>30</td>
</tr>
<tr>
<td>Fiber Cement Underlayment</td>
<td>15</td>
</tr>
</tbody>
</table>

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 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 ft²/gallon (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 8" (200 mm) wide over substrate cracks, cold

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Physical Properties

<table>
<thead>
<tr>
<th>Test</th>
<th>Test Method</th>
<th>Results</th>
</tr>
</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>265-300 psi (1.8-2.1 MPa)</td>
</tr>
<tr>
<td>7-day Water Immersion</td>
<td>ANSI A118.10</td>
<td>95-120 psi (0.7-0.8 MPa)</td>
</tr>
<tr>
<td>7-day Shear Bond</td>
<td>ANSI A118.10</td>
<td>200-275 psi (1.4-1.9 MPa)</td>
</tr>
<tr>
<td>28-day Shear Strength</td>
<td>ANSI A118.10</td>
<td>214-343 psi (1.5-2.3 MPa)</td>
</tr>
<tr>
<td>System Crack Resistance</td>
<td>ASTM E12.5.4</td>
<td>Pass (High)</td>
</tr>
<tr>
<td>Water Vapor Permeance</td>
<td>NBR 12170:2009</td>
<td>1.247 perms (71.2 ng/Pa.s.m²)</td>
</tr>
<tr>
<td>Tensile Strength for Elongation</td>
<td>ASTM C627;TCA</td>
<td>Extra Heavy</td>
</tr>
<tr>
<td>Thickness (Dried)</td>
<td></td>
<td>20-30 mils (0.5-0.8 mm)</td>
</tr>
</tbody>
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Potability of Water Applicable to Waterproofing Systems

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<tr>
<td>Tensile Strength for Elongation</td>
<td>ASTM C627;TCA</td>
<td>250%</td>
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<tr>
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Working Properties

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joints, and control joints using a paint brush or roller (heavy napped roller cover). 6" (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 <1/8" (3 mm). Apply a liberal coat of HYDRO BAN approximately 8" (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 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 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 6" (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 LATASIL.

**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 70°F (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.

**Movement Joints**

See HYDRO BAN Installation Instructions DS 663.5. Note: Apply a liberal coat of HYDRO BAN, 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. 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 2 hours at 70°F (21°C) and 50% RH.

**Flood Testing**

Allow membrane to cure fully before flood testing, typically 2 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 50 – 69°F (10 – 21°C) allow 24 hours after final cure prior to flood testing.

**Installing Finishes**

Ceramic tile, stone and thin 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.

**Control Joints**

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 3300 psi (22.8 MPa) with a flow rate of 0.95 to 1.6 GPM (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 that the sprayer is capable of producing a maximum of 3300 psi (22.8 MPa) with a flow rate of 0.95 to 1.6 GPM (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 50 – 69°F (10 – 21°C) allow 24 hours after final cure prior to flood testing. Apply a continuous HYDRO BAN 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 70°F (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. When the wet film thickness should be checked periodically using a wet film gauge. Each wet coat should be 0.015 – 0.022 inches (0.4 – 0.6 mm) thick. The combined dried coating should be 0.020 – 0.030 inches (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.

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:
- LATICRETE 25 Year Tile & Stone System Warranty
- LATICRETE 10 Year System Warranty (United States and Canada)
- LATICRETE Product Warranty
- LATICRETE 25 Year System Warranty Over LATICRETE® SUPERCAP® Products (United States and Canada)
- LATICRETE 15 Year Tile & Stone System Warranty
- LATICRETE Lifetime System Warranty (United States and Canada)

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:

- LATICRETE Product Warranty DS 230.05:
- LATICRETE 5 Year System Warranty (United States and Canada) DS 230.13:
- LATICRETE 15 Year System Warranty (United States and Canada) DS 230.15:
- HYDRO BAN Installation Instructions DS 025.0:
- LATICRETE 25 Year System Warranty (United States and Canada) DS 230.99:
- LATICRETE Lifetime System Warranty (United States and Canada) DS 633.0: LATAPOXY 300 Adhesive DS 663.5: HYDRO BAN Installation Instructions DS 6200.1: LATAPOXY 300 Adhesive “Bonding Ceramic Tile, Stone or Brick Over Wood Floors” TDS 410: Spraying HYDRO BAN TDS 157 “Exterior Installation of Tile and Stone Over Occupied Space.”