LATICRETE Hydro Ban®

DS-663.0-1013

Globally Proven Construction Solutions

1. PRODUCT NAME

LATICRETE® Hydro Ban

2. MANUFACTURER

LATICRETE UK
Speke Hall Industrial Estate
Speke, Liverpool, Merseyside, L24 1YA
United Kingdom
Tel: 0151 486 6101
Fax: 0151 448 1982
e-mail: sales@laticrete.co.uk
www.laticrete.co.uk

3. PRODUCT DESCRIPTION

LATICRETE Hydro Ban is a thin, load bearing waterproofing/crack isolation membrane that DOES NOT require the use of a fabric reinforcing tape across the base surface, coves or corners.
LATICRETE Hydro Ban is a single component self-curing liquid rubber polymer that forms a flexible, seamless waterproofing membrane. LATICRETE Hydro Ban bonds directly to a wide variety of substrates.

Uses

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

Advantages

- Allows for flood testing in 2 hours at 70°F (21°C) or higher
- Does not require the use of fabric reinforcing tape.*
- Bonds directly to metal and PVC plumbing fixtures only
- Thin; only 0.020–0.030" (0.5–0.8 mm) thick when cured.
- Changes in colour 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.
- Conforms to EN 14891:2007-DM-P
- Exceeds ANSI A118.10 and A118.12.
- IAPMO approved.
- Rapid drying for a faster time to tile.
- Lighter colour for ease of inspection.
- Safe — no solvents and non-flammable.
- Install tile, brick and stone directly onto membrane.

* For gaps 1/8" (3 mm) or less see DS 663.5 for complete instructions
¥ Refer to cautions section for more information on curing

Suitable Substrates

- Concrete
- Concrete & brick masonry
- Cement mortar beds
- Cement plaster
- Gypsum wallboard*
- Exterior glue plywood*
- Ceramic tile & stone**
- Cement terrazzo**
- Cement backer board***
- Poured Gypsum Underlayment †

* Interior applications 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.
† Interior use only. Follow TCNA Guidelines/ Methods: F200, RH111, RH122, F180

Packaging

Commercial Unit: 19 ℓ buckets packed as 36 per pallet
Mini Unit: 5 ℓ buckets of liquid packed (100 buckets/pallet).

Approximate Coverage

Commercial Unit: 23.2 m_2 per 19 litre unit
Mini Unit: 6.0 m_2 per 5 litre unit

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, 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 LATICRETE® Hydro Ban®.

- **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.
- Do not use as a primary roofing membrane over occupied space.
- Do not use over dynamic expansion joints, structural cracks or cracks with vertical differential movement (See LATICRETE® Hydro Ban Installation Instructions, DS 663.5, for complete instructions).
- Do not use over cracks >1/8" (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 directly over single layer wood floors, plywood tubs/showers/fountains or similar structures.
- Must be covered with ceramic tile, stone, brick, concrete, screeds, terrazzo or other traffic-bearing finish. Use protection board for temporary cover.
- Not for use under self-levelling underlayments or decorative wear surfaces.

Cautions

Consult MSDS for more safety information.

- 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.
- Allow membrane to cure fully (typically 24 hours at 10°C–21°C and 70% RH and 2 hours at 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/mortar bed substrate should not exceed 283 µg/s m2/ 24 hrs per ASTM F-1869 or 75% relative humidity as measured with moisture probes.
- During cold weather, protect from traffic until fully cured.
- 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 (refer to Data Sheet 633.0).
- Wet coat thickness is (0.4 to 0.6 mm) per coat. Use a wet film thickness gauge to check thickness. Significantly exceeding this recommendation may result in bubbling & cracking of the cured film.
- Allow fresh mortars or plasters to cure & dry to 75% RH (as above) prior to installing LATICRETE® Hydro Ban.
- Allow the LATICRETE Hydro Ban a minimum 2 hours cure at 70°F (21°C) prior to flood testing in these conditions.
- LATICRETE® 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.

4. TECHNICAL DATA

Approval

VOC/LEED Product Information

This product has been GREENGUARD Indoor Air Quality Certified® by the GREENGUARD Environmental Institute under the GREENGUARD Standard for Low Emitting Products in finished form.

Applicable Standards:

ANSI A118.10 and A118.12

EN 14891:2007 DM P

Physical properties:

Physical property	Test Method	Laticrete Hydro Ban
7-day hydrostatic test	ANSI A118.10	Pass
7-day Breaking strength	ANSI A118.10	1.8 – 2.0 N/mm2
7-day water immersion	ANSI A118.10	0.7 – 0.8 N/mm2
7-day shear bond	ANSI A118.10	1.4 – 1.9 N/mm2
28 day shear bond	ANSI A118.10	1.5 – 2.3 N/mm2
Crack resistance	ANSI 118 12.5.4	Pass
Dry film thickness		0.5 – 0.8mm

Time to tile:

Substrate	Time to Tile (mins)
Concrete	50
Cement board	30
Fibre cement underlayment	15

Working Properties

LATICRETE® 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 LATICRETE Hydro Ban if coated with 0.020–0.030" (0.5–0.8 mm) of dried membrane. Colour changes from a light sage to olive green **when fully cured.**

5. INSTALLATION

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 LATICRETE® underlayment.

Do not level with gypsum or asphalt based products. Maximum deviation in plane must not exceed 6 mm in 3 metres with no more than 1.5 mm in 0.3 metres variation between high spots. Dampen hot, dry surfaces and sweep off excess water—installation may be made on a damp surface. New concrete slabs shall be damp cured and a minimum of 14 days old before application.

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) centres. maximum; fasten plywood 6" (150 mm) centres along sheet ends and 8" (200 mm) centres along intermediate supports with coated or hot dip galvanized screws allow 3 mm between sheet ends and 6 mm between sheets edges; all sheet ends must be supported by a framing member; glue sheets to joints with construction adhesive.

UNDERLAYMENT: 15 mm thick exterior grade WBP glue plywood fastened 150 mm centres along sheet ends and 200 mm centres in the panel field (both directions) with coated or hot dip galvanized 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.

Prime all porous gypsum (anhydrite) based surfaces to receive HYDRO BAN with a 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, mixed 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 hours, depending on substrate and air temperature and humidity). When dry apply two full coats of HYDRO BAN® to the primed area.

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 or an equivalent patch repair compound. Alternatively, for all substrate cracks, cold joints, control joints and seams less than 3 mm wide, a liberal coat^^ of LATICRETE® Hydro Ban applied with a paint brush or trowel may be used to fill in non-structural joints and cracks.
Then apply a liberal coat^^ of LATICRETE Hydro Ban approximately 200 mm wide over substrate cracks, cold joints, and control joints using a paint brush or roller (heavy napped roller cover).
LATICRETE® 150 mm wide **LATICRETE® Waterproofing/Anti-Fracture Tape** can be used to pre-treat wide cracks, joints, curves, corners, drains and penetrations with LATICRETE® Hydro Ban.
^^ Wet coat thickness is 0.4 – 0.6 mm consumption per coat is -0.4 ℓ/m²; coverage per coat is (-2.5m²/ℓ. Use wet film gauge to check thickness.

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 LATICRETE latex fortified thin-set mortar. Alternatively, a liberal coat^^ of LATICRETE® Hydro Ban applied with a paint brush or trowel may be used to fill in cove joints and floor/wall transitions < 3 mm wide. Then apply a liberal coat^^ of LATICRETE® 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 clamping ring type, with weepers and as per ASME A112.6.3. Apply a liberal coat^^ of LATICRETE® Hydro Ban Waterproofing Membrane liquid around and over the bottom half of drain clamping ring then cover with a second coat^^ of LATICRETE® Hydro Ban. When dry, apply a LATICRETE® Latasil™ bead where the LATICRETE® 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 LATICRETE® latex fortified thin-set mortar. Apply a liberal coat^^ of LATICRETE® Hydro Ban liquid around penetration opening. Cover with a second coat^^ of LATICRETE Hydro Ban as soon as the first coat is cured. Bring LATICRETE Hydro Ban up to level of tile or stone. When dry, seal flashing with tile and stone sealant .

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 TCNA method F125 for the treatment of hairline cracks, shrinkage cracks and saw cut or control joints. Apply a liberal coat^^ of LATICRETE® 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 LATICRETE® Hydro Ban over the first coat and then allow to dry.

As an alternative; Apply a liberal coat^^ of LATICRETE® 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 **LATICRETE Waterproofing/Anti-Fracture Fabric Tape** 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 LATICRETE® Hydro Ban® liquid over the fabric and allow to dry. Treat closest joint to the crack, saw cut, or cold joint in the tile or stone installation with LATICRETE Latasil™.

Main Application
Allow any pre-treated areas to dry to the touch. Apply a liberal coat^^ of LATICRETE® Hydro Ban with brush or roller over substrate including all pre-treated areas. Apply another liberal coat^^ of LATICRETE® Hydro Ban over the first coat of LATICRETE® 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. LATICRETE® Hydro Ban will dry to an olive green colour when it's dry to touch.
Use additional LATICRETE® Hydro Ban to seal all visible defects.

Movement Joints
See LATICRETE Hydro Ban Installation Instructions 663.5.
Note: Apply a liberal coat^^ of LATICRETE Hydro Ban, approximately 200 mm wide over the areas. Then embed and loop the 150 mm wide **LATICRETE® Waterproofing/Anti-Fracture Tape Fabric** and allow to bleed through. Then top coat with a second coat^^ of LATICRETE® Hydro Ban to an even finish.

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 a minimum of 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

Once LATICRETE 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® Multipurpose powder Thin-Set Mortar.

Allow LATICRETE Hydro Ban to cure a further 2 hours at 21°C and 50% RH after it is completely dark olive green 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 LATICRETE 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 a suitable paintable Tile and Stone Sealant 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 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 follow BS 5385–5:2009 section 8 for the design & installation of movement joints within the tiled area. Do not cover movement joints with mortar. Use compatible Tile and Stone Sealant and backer rod.

Spray applications of LATICRETE 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 LATICRETE® 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 LATICRETE® 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 LATICRETE® Hydro Ban film with an overlapping spray^^. 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 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 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 LATICRETE® Hydro Ban is being dispensed to ensure that the appropriate thickness and coverage is achieved. Splash back and overspray will consume more product than is needed. 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 LATICRETE® 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 LATICRETE 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

Clean tools and masonry with water.

6. AVAILABILITY AND COST

Availability

LATICRETE® and LATAPOXY® materials are available worldwide. For on-line Distributor Information, call 0151 486 6101 or visit LATICRETE UK at
www.laticrete.co.uk

7. 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.

8. TECHNICAL SERVICES

Technical Assistance

Information is available by calling the LATICRETE UK Technical Service Hotline:
Tel: 0151 486 6101
Fax: 0151 448 1982
e-mail: sales@laticrete.co.uk

Technical and Safety Literature

To acquire technical and safety literature, please visit our website at **www.laticrete.co.uk**

9. 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 liability is assumed by the user when used incorrectly and not in accordance with LATICRETE® guidelines. The manufacturer is not responsible for any loss or damage arising from incorrect usage of this product. The specifier or other party responsible for the project must ensure that the details in this data sheet are appropriate for the intended application and that additional detailing is performed for specific design or any areas that fall outside the scope of this specification.

LATICRETE International, Inc.
One LATICRETE Park North, Bethany, CT 06524-3423 USA • 1.800.243.4788 • +1.203.393.0010 • www.laticrete.com