



LATICRETE MVIS Air & Water barrier®

DS-661.0-0817

**Globally Proven
Construction Solutions**

1. PRODUCT NAME

LATICRETE MVIS Air & Water Barrier

2. MANUFACTURER

LATICRETE UK

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3. PRODUCT DESCRIPTION

MVIS Air & Water Barrier is single component, load bearing, fluid applied, waterproofing, crack isolation, air barrier membrane. MVIS Air & Water Barrier produces a seamless, monolithic elastomeric coating and bonds directly to a wide variety of substrates. MVIS Air & Water Barrier is a low VOC, self-curing, water – based formula containing antimicrobial technology used in construction where air & water barriers are required to improve building efficiencies & durability. MVIS Air & Water Barrier is designed to enhance building longevity, save energy and increase building comfort.

Uses

- Designed for use as an air and water barrier behind exterior wall claddings.
- Performs as a waterproofing and crack isolation membrane in an MVIS system when placed under exterior veneer finishes (ceramic tile, stone, manufactured stone veneer) and directly over cement backer board.)
- Performs as a component of a building air barrier system when placed over exterior rated sheathing. OSB, EGP.
- Performs as a component of air barrier assembly when used with other wall components within the building envelope.
- Bridges up to 1/4" (6mm) gaps on sheathing board joints with Waterproofing/Anti-Fracture Fabric.
- Creates an air and weather barrier coating for applications to glass mat gypsum exterior sheathing panels, exterior glue plywood, OSB, cement board sheathing and other approved substrates.
- Consult LATICRETE Technical Services Department for further options

Advantages

- Meets ASTM E2357 Air Leakage of Building Assemblies.
- Adhered Exterior veneers may be installed to membrane using Polymer Fortified Veneer Mortars over concrete, brick, cement plaster and cement backer board.

- Excellent bond strength.
- Contributes to overall building energy efficiency.
- Equipped with anti-microbial technology.
- Works together with MVIS Transition Tape and MVIS Flexible Sealing Tape to help provide complete protection of the building envelope.
- Meets ASTM D 1970 Nail Sealability requirements.
- Lighter color for ease of inspection.
- Safe—no solvents and non-flammable.
- MVIS Air & Water Barrier is an Air Barrier Association of America (ABAA) Evaluated Material and is part of an ABAA Evaluated Assembly.
- Exceeds ANSI A118.10 and A118.12

* 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 m² per 19 litre unit

Mini Unit: 6.0 m² 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 particle board, interior glue plywood, luan,
- Masonite® or hardwood surfaces.
- When used as a component of an air barrier system, MIVS™ Air & Water Barrier is not functioning as a waterproofing/antifracture

- membrane.
- When used in an MVIS system, MVIS Air & Water Barrier may not necessarily be recommended outboard of the insulation in some Climate Zones. Always consult with design professional for membrane position in an assembly.
- OSB is not suitable as a veneer substrate.
- Do not install over structural cracks, cracks with vertical movement or cracks with >1/8" (3 mm) horizontal movement.
- Do not use as a primary roofing membrane over occupied space.
- Based on information provided in the Technical Data Table – Section 4 of this document. The design professional / specifier should detail and specify vapor barrier layer material type and location within the installation assembly and in accord with local building codes and to determine suitability of MVIS™ Air & Water Barrier within the installation assembly.
- Do not expose to negative hydrostatic pressure, rubber solvents or ketones.
- Do not expose membrane directly to sun or weather for more than 90 days for direct adhered masonry veneer or cavity wall air and water barrier installations.
- MVIS Air & Water Barrier is a secondary weather barrier. The outer façade finish is the primary weather barrier and must be installed and maintained per manufacturer's guidelines in order to ensure the proper performance of MVIS Air & Water Barrier.
- Do not install if surface or air temperature is below 50°F (10°C) or above 90°F (32°C).
- Not for use beneath directly applied cement or other plaster finishes. Consult with plaster manufacturer for their recommendations when waterproofing membrane is required under plaster finishes.

Cautions

- 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.
- Allow fresh mortars or plasters to cure for 72 hours at 70°F (21°C) prior to installing MVIS Air & Water Barrier.
- Allow the MVIS Air & Water Barrier a minimum 2 hours cure at 70°F (21°C) prior to flood testing in these conditions.
- MVIS Air & Water Barrier 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/mm ²
7-day water immersion	ANSI A118.10	0.7 – 0.8 N/mm ²
7-day shear bond	ANSI A118.10	1.4 – 1.9 N/mm ²
28 day shear bond	ANSI A118.10	1.5 – 2.3 N/mm ²
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

5. INSTALLATION

See MVIS™ Air & Water Barrier How to Install Instructions DS 661.5 for complete installation instructions. MVIS Air & Water Barrier can be applied using airless spray equipment or paint roller. All areas must have two coats to ensure proper coverage. Substrate will not show through MVIS Air & Water Barrier 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 LATICRETE® TDS 410M for more information on the spray application of MVIS Air & Water Barrier.

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.

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® MVIS Air & Water Barrier 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 MVIS Air & Water Barrier 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[®] MVIS Air & Water Barrier 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[®] MVIS Air & Water Barrier approximately 8" (200 mm) wide over substrate coves and floor/wall transitions using a paint brush or roller (heavy napped roller cover).

Main Application

Allow any pre-treated areas to dry to the touch. Apply a liberal coat^{^^} of LATICRETE[®] MVIS AIR & WATER BARRIER with brush or roller over substrate including all pre-treated areas. Apply another liberal coat^{^^} of LATICRETE[®] MVIS AIR & WATER BARRIER over the first coat of LATICRETE[®] MVIS AIR & WATER BARRIER. 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[®] MVIS AIR & WATER BARRIER will dry to an olive green colour when it's dry to touch. Use additional LATICRETE[®] MVIS AIR & WATER BARRIER to seal all visible 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.

Installing Finishes

Once LATICRETE MVIS Air & Water Barrier 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 MVIS Air & Water Barrier 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 MVIS Air & Water Barrier.

[^] 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 structural 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[®] MVIS Air & Water Barrier 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[®] MVIS Air & Water Barrier 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[®] MVIS Air & Water Barrier 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[®] MVIS Air & Water Barrier[®] 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 MVIS AIR & WATER BARRIER 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.

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