LATAPOXY® 312 Vapor Reduction Membrane

DS-312.0-0414

Globally Proven Construction Solutions

1. PRODUCT NAME
LATAPOXY® 312 Vapor Reduction Membrane

2. MANUFACTURER
LATICRETE International, Inc.
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3. PRODUCT DESCRIPTION
LATAPOXY 312 Vapor Reduction Membrane is a 3 component, roller applied epoxy coating specifically designed to reduce vapor emission in concrete substrates (interior) for various floor coverings.

Uses
- Used over concrete substrates to reduce vapor to below 3 lbs/1000 ft²/24hr (170 µg/(s • m) when tested in accord with ASTM F1869 "Standard Test Method for Moisture Vapor Emission Rate using Anhydrous Calcium Chloride".
- Ideal for slab-on-grade construction.
- Allows for the installation of vinyl, wood, epoxy, ceramic tile, stone and other floor coverings.

Advantages
- Easy to use- rolls on like paint
- Cures in 24 hours
- Can be applied over green concrete (min. 7 days old)

Suitable Substrates
- Concrete slabs (Interior use only)

Packaging
- 3-1/2 gallon (13.2 L) bucket (used for mixing)
- 2 part A @ 2.0 lb (0.9 kg)
- 1 part B @ 2.6 lb (1.2 kg)
- 7 lb (3.2 kg) part C powder
- 13.6 lb (6.2 kg) per unit
- 48 units per pallet

Approximate Coverage
Each full unit will yield approximately 180–220 ft² (17–21 m²) per 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
- Interior use only
- 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 a LATICRETE® Waterproofing Membrane (see Section 10 FILING SYSTEM).
  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 where L=span length.
- Not for use over any other substrates besides concrete slabs (min. 7 days at 70°F (21°C)
- Water based, do not allow to freeze.
- LATICRETE is not responsible for moisture emissions from expansion and isolation joints, existing cracks, or new cracks that may develop after the system has been installed.
- Not for use in areas subject to negative hydrostatic pressure.

Cautions
- Conduct Calcium Chloride tests per ASTM F1869 prior to and subsequent to installation of LATAPOXY 312 Vapor Reduction Membrane.
- Consult with adhesive manufacturer for compatibility with LATAPOXY 312 Vapor Reduction Membrane.
- During cold weather, protect finished work from traffic until fully cured.
- Product performance contingent upon proper completion of ASTM F–1869 by certified testing personnel. Test must be performed as per test manufacturers written installation instructions.
- Keep out of reach of children.

4. TECHNICAL DATA

Applicable Standard

EN12004-1997

Physical Properties

Test	Method	Results
Shear Bond to Concrete 28 Days	ANSI A118.12 5.1.5	285–570* psi (2.0–3.9 MPa)
Euro Norm Test: Tensile Pull		
Bond to Concrete 28 Days	EN 12004	276 psi (1.9 MPa)
Permeability	ASTM F–1869	9.7 down to 0.2 lb/1000 ft^2/24 hr. (4.4 down to 0.09 kg/92.9 m^2/24 hr)
Alkalinity Resistance	ASTM C-267	Pass, No Degradation

* Failure in thin-set adhesive

Working Properties

Time to Heavy Traffic	24 hours
Pot Life	60 min

5. INSTALLATION

Surface Preparation

Conduct 3 calcium chloride tests for the first 1000 ft2 (92.9 m2) and 1 calcium chloride test for every 1000 ft2 (92.9 m2) thereafter of surface to receive the LATAPOXY® 312 Vapor Reduction Membrane. For areas that have a moisture vapor emission rate (MVER) between 3 lbs./1,000 ft2/24 hours (170 µg/s m2) and 12 lbs./1,000 ft2/ 24 hours (678 µg/s m2) apply one coat of LATAPOXY 312 Vapor Reduction Membrane. For areas that have an MVER between 12 lbs./1,000 ft2/24 hours (678 µg/s m2) and 20 lbs./1,000 ft2/ 24 hours (1,130 µg/s m2) remeasure MVER (as stated above) and if necessary, apply a second coat of LATAPOXY 312 Vapor Reduction Membrane until 3 lbs/ 1,000 ft2/24 hours (170 µg/s m2) is reached. Surface temperature must be 45–90°F (7–32°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. Surfaces treated with form release agents or other bond inhibiting contaminants must be properly shot or bead blasted to ensure all contaminants are removed. 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.

Mechanical scarification, shot or bead blasting of the surface is required to obtain an ICRI profile of CSP 3 (Light shot-blast). Acid etching, solvents, sweeping compounds, and sanding equipment are not acceptable means of cleaning the substrate.

Prior to installing, prepare the concrete as described above and measure the moisture emission levels in accordance with the Calcium Chloride Method (ASTM F1869). To install LATAPOXY 312 Vapor Reduction Membrane, the level of moisture emissions from the concrete should not exceed 20 lbs/1000 ft2/24 hr (1,130 µg/s m2) at the time of installation. In all cases, the surface temperature of the prepared concrete slab must be warm enough to avoid condensation on the surface of the concrete as the LATAPOXY 312 Vapor Reduction Membrane cures.

If the concrete substrate is too uneven (typically CSP 6 or higher) to provide a uniform film thickness of the 312 Vapor Reduction Membrane, the substrate can be pre-smoothed using NXT™ Patch or a skim coat of 254 Platinum. NXT Patch or the skim coat of 254 Platinum must be allowed to cure a minimum of 24 hours at 70°F (21°C) prior to the installation of LATAPOXY 312 Vapor Reduction Membrane.

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 with NO standing water. New concrete slabs should meet the minimum moisture content, as stated above, prior to application of the LATAPOXY 312 Vapor Reduction Membrane.

ICRI CSP 3

ICRI CSP 6

Before using, store resins at room temperature 70°F (21°C) for 24 hours to ensure ease of mixing.

Treatment for Construction, Control (Saw-Cut), and Cold Joints; Dormant, and Shrinkage Cracks.

All non-structural cracks in the subfloor shall be repaired to minimize telegraphing through the underlayment, tile and stone.

1. Movement Joints-honor all expansion and isolation joints up through the LATAPOXY 312 Vapor Reduction Membrane and underlayment or topping.

2. Saw Cuts, Control Joints and Dormant Cracks-Clean all non-structural cracks and joints of all loose debris and elements. Use LATAPOXY 312 Vapor Reduction Membrane to fill small, non-moving cracks, control joints, construction joints and cold joints in existing concrete substrates. To fill dormant, non-structural cracks up to 1/16" (1.5 mm) in width, the epoxy material shall be LATAPOXY 312 Vapor Reduction Membrane. To fill dormant, non-structural cracks up to 1/4" (6 mm) in width, the cementitious material shall be 254 Platinum. The filling of dormant cracks, as described above, is recommended to prevent moisture emissions through these cracks. Once the cracks or joints are filled, allow these areas to cure for a minimum of 24 hours at 70°F (21°C) prior to proceeding with the installation of the LATAPOXY 312 Vapor Reduction Membrane over the entire surface.

Movement Joints and Cracks
In no case should expansion joints, isolation joints or moving cracks be filled with this epoxy. All moving joints and cracks must be honored up through the moisture control system, the LATICRETE® underlayment or topping, and the floor covering or coating by installing LATASIL™ in the movement joint.

Mixing
- Mix all units of Part A and Part B until thoroughly mixed, uniform in color by using mechanical mixer. Add all powder (Part C) and mix until uniformly dispersed into the liquid. Make sure to dispense all liquids from the pouches to assure correct coverage.

Application
- Apply LATAPOXY® 312 Vapor Reduction Membrane to the substrate using a 3/8" (9 mm) nap roller. Apply an even coat making sure to cover all areas thoroughly, allow to cure for 24 hours at 70°F (21°C) prior to conducting moisture testing per ASTM F1869 to determine if a second coat is necessary.
- If moisture level still does not meet the requirements of the finish flooring then a second coat can be applied after the first coat has dried for 24 hours @ 70°F (21°C). Allow the second coat to dry for 24 hours @ 70°F (21°C), before conducting the last round of calcium chloride tests to verify moisture level.
- Do not proceed with the installation of the finish flooring if the vapor emission rate exceeds the requirement of the finishing flooring manufacturer. Allow LATAPOXY 312 Vapor Reduction Membrane to cure for 24 hours at 70°F (21°C) before conducting the last round of moisture testing per ASTM F1869 or the installation of the finish flooring.
- If an anti-fracture and/or waterproofing membrane is required use HYDRO BAN® over the cured LATAPOXY 312 Vapor Reduction Membrane.
- Use 254 Platinum to install ceramic tile or stone.

6. AVAILABILITY AND COST
Availability
LATICRETE and LATAPOXY materials are available worldwide.

For Distributor Information:
Toll Free: 1.800.243.4788
Telephone: +1.203.393.0010
For online Distributor information, visit LATICRETE at **www.laticrete.com.**
Cost
Contact a LATICRETE Distributor in your area.

7. WARRANTY
See 10. FILING SYSTEM
DS 230.13: LATICRETE Product Warranty (United States and Canada)
A component of:
DS 230.05APD: LATICRETE 5 Year Tile & Stone System Warranty (United States and Canada)

8. MAINTENANCE
LATICRETE and LATAPOXY grouts require routine cleaning with a neutral pH soap and water. All other LATICRETE and LATAPOXY 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. 235
Telephone: +1.203.393.0010 ext. 235
Fax: +1.203.393.1948

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

10. FILING SYSTEM
Additional product information available upon request:
DS 230.13: LATICRETE Product Warranty (United States and Canada)
DS 230.05APD: LATICRETE 5 Year Tile & Stone System Warranty (United States and Canada)
DS 236.0: 9235 Waterproofing Membrane
DS 663.0: HYDRO BAN
DS 501.0: NXT™ Patch
DS 677.0: 254 Platinum
DS 6200.1: LATASIL

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