For the Builders of a Better World™

Vapex Waterproofing Membrane

Vapex Waterproofing Membrane is a versatile and easy to use exposed waterproofing membrane that provides excellent flexibility & protection of substrates from water penetration & ultra violet rays. Ideal for use on all rooftops, terraces & balconies floors and walls.

FEATURES/BENEFITS

- Easy to Install–applies like paint
- Protects substrates from water damage
- Excellent resistance in high & low temperature
- Excellent adhesion on substrates without use of primer
- Able to bridge cracks up to 2mm

USES

- Interior and exterior
- Rooftops, roof terraces
- Balconies
- Over existing metal roof

MANUFACTURER/DISTRIBUTED BY

LATICRETE South East Asia Pte Ltd
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STANDARDS/CERTIFICATIONS

- ASTM D2370
- ASTM D2240
- ASTM C836
- DIN 1048
- ASTM D624
- ASTM C794
- ASTM D4541
- ASTM D1640
- ASTM E154
- ASTM E96
- ASTM G154

SINGAPORE GREEN BUILDING PRODUCT SGBC EXCELLENT

This product has been certified green by the Singapore Green Building Council.

Suitable Substrates

- Concrete
- Existing steel structures/ roofing
- Concrete & brick masonry
- Cement mortar beds
- Cement plaster
- Waterproofed glue plywood
- Gypsum wallboard*
- Ceramic tile & stone**
- Cement terrazzo**
- Cement backer board***

* Interior applications only
** This type of substrate should be laid with Laticrete Latex Thin-Set Mortar prior to application
***Consult cement backer board manufacturer and LATICRETE Technical Department for specific installation recommendations and to verify acceptability for exterior use.

Packaging

Commercial Unit: 25kg pail liquid
(24 pails / pallet)

Color: Grey, White, Matcha Green, Blossom Rose, Kenya Clay and Regal Blue.

Approximate Coverage

25kg of Vapex Waterproofing Membrane yields approximately 24 m^2 per 2 coats

Shelf Life

Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored at shelter area with temperatures >0°C and <35°C.

Limitations

- DO NOT bond to particle board, luan, Masonite or hardwood surfaces.
- DO NOT use over dynamic expansion joints, structural cracks or cracks with vertical differential movement
- DO NOT use over cracks >3mm in width.
- DO NOT use as a vapor barrier (especially in steam rooms).
- DO NOT expose to negative hydrostatic pressure, excessive vapor transmission, rubber solvents or ketones.
- Consult technical service if to be used as a primary waterproofing membrane over occupied space.
- Color and gloss retention of the waterproof coating finish may vary depending on the type of color and environmental factors such as temperature, UV intensity, chemical spills, and application quality. For further information, please contact a LATICRETE Technical representative

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.

TECHNICAL DATA

Physical Properties

Test	Test Method	Results
Tensile Strength @ 28 days	ASTM D2370	≥2.0N/mm^2
Elongation	ASTM D2370	≥ 420%
Shore Hardness	ASTM D2240	≥ 69
Crack Bridging	ASTM C836	No cracks @ 2mm
Water Penetration	DIN 1048	No water penetration
Tear Resistance	ASTM D624	≥21.8kN/m
Adhesion in Peel	ASTM C794	≥24.7N
Adhesion Strength	ASTM D4541	≥1.5N/mm^2
Set to Touch Time	ASTM D1640	2hrs
Puncture Resistance	ASTM E154	≥590N
Water Vapor Transmission	ASTM E96	< 6.9g/m^2.24h
QUV Accelerated Weathering	ASTM G154	No cracking, blistering & delamination

*Specifications subject to change without notification. Results shown are typical but reflect test procedures used. Actual field performance will depend on the type of tile/stone/brick used, installation methods and site conditions.

Working Properties

Vapex Waterproofing Membrane can be applied using a paint brush, roller, or airless sprayer. All areas must have two coats to ensure waterproofing capabilities. In areas where movement is anticipated, it is recommended to embed Anti-Fracture Fabric or reinforcing mesh within the liquid membrane. When applied with a paint roller, the substrate should not be visible through the Vapex Waterproofing Membrane.

INSTALLATION

Surface Preparation

The recommended surface temperature range during application is typically between 10°C to 32°C.This range ensures optimal curing and adhesion of Vapex Waterproofing Membrane. 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 product. 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.

Pre-Treat Cracks, Joints, Coves/ Corners & Backer Board Joints

Fill all substrate cracks, cold joints, and control joint to a smooth finish using a Latex Fortified Thin Set. Alternatively, a liberal coat of Vapex Waterproofing Membrane applied with a paint brush or trowel may be used to fill in non structural joints and cracks less than 3mm. Apply a liberal coat of Vapex Waterproofing Membrane approximately 200mm wide over substrate cracks, cold joints, and control joints using a paint brush or roller (heavy napped roller cover).

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 Vapex Waterproofing Membrane applied with a paint brush or trowel may be used to fill in cove joints and floor/wall transitions <3mm. Apply a liberal coat of Vapex Waterproofing Membrane approximately 200mm wide over substrate coves and floor/wall transitions using a paint brush or roller (heavy napped roller cover). Imbed 150mm Anti-Fracture Fabric (if necessary) and then apply a second coat of Vapex Waterproofing Membrane.

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 Vapex Waterproofing Membrane liquid around and over the bottom half of drain clamping ring. Imbed 150mm Anti-Fracture Fabric (if necessary) and then apply a second coat of Vapex Waterproofing Membrane. When dry, apply a Latasil™ bead where the Vapex Waterproofing Membrane meets the drain throat. Install top half of drain clamping ring.

Pre-Treat Penetrations

Allow for a minimum 3mm 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 Vapex Waterproofing Membrane around penetration opening. Imbed 150mm Anti-Fracture Fabric (if necessary) and then apply a second coat of Vapex Waterproofing Membrane. Bring Vapex Waterproofing Membrane up to level of tile or stone. When dry, seal flashing with Latasil.

Priming

Vapex waterproofing system does not necessarily require a separate admix or primer for application. It is a one-component, liquid-applied membrane designed for easy use without the need for mixing or additives. It typically bonds directly to properly prepared substrates.

However, surface preparation is crucial, and in some cases, a primer might be recommended, especially for highly porous or uneven substrates, to ensure better adhesion and performance. It is always best to follow the specific installation guidelines provided by Laticrete or check the project's needs before proceeding.

Mixing

Use direct from pail

Application

Allow any pre-treated areas to dry the touch. Apply a liberal coat of Vapex Waterproofing Membrane with a paint brush, roller, or airless sprayer over substrate including pre-treated areas. Then embed the 150mm wide Anti-Fracture Fabric and allow to bleed through (if necessary). Let top coat dry to the touch, approximately 30 minutes to 2 hours depending on site temperature, internal or exterior application.

Apply another liberal coat of Vapex Waterproofing Membrane over first coat. When last coat has dried to touch, inspect final surface for pinholes, voids, thin spots or other defects. Use additional Vapex Waterproofing Membrane to seal defects. A minimum of two coats required to form a continuous film of 0.5mm – 0.9mm.

*The curing time will greatly vary depending on substrate, temperature, and relative humidity.

Installing Finishes

Allow Vapex Waterproofing Membrane to dry for 48 hours before ceramic tile, stone or brick may be installed by the thin bed method with a LATICRETE Latex Thin-Set Mortar. Do not use solvent-based adhesives directly on Vapex Waterproofing Membrane.

Expansion Joints

Ceramic tile, stone and 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 penetrations and at the intervals described in the Tile Council of North America (TCNA) Handbook Installation Method EJ171. Use LATICRTE Latasil and backer rod.

Spray Application of Vapex Waterproofing Membrane

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 Vapex Waterproofing Membrane should be capable of producing a maximum of 22.8MPa 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 Vapex Waterproofing Membrane to ensure continuous application of liquid. The hose length should not exceed 30m min length and 9 mm in diameter.

Apply a continuous Vapex Waterproofing Membrane film with an overlapping spray. When the first coat has dried to a uniform color, approximately 30 minutes to 2 hours at 24°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 0.3–0.5mm thick. The combined dried coating should be 0.5–0.9mm.

Cleaning

Clean tools with water.

AVAILABILITY AND COST

Availability

LATICRETE and LATAPOXY materials are available worldwide. For distributor information, call:

Telephone: (65) 6515-3028
Fax: (65) 6515-3037
For on-line distributor information, visit LATICRETE at se.laticrete.com

Cost
Contact a LATICRETE Distributor in your area.

WARRANTY
LATICRETE South East Asia Pte Ltd warrants that VAPEX Waterproofing Membrane is free from manufacturing defects and will not break down, deteriorate or disintegrate under normal usage for a period of one (1) year from date of purchase subject to the terms and conditions stated in Data Sheet.

MAINTENANCE
LATICRETE® and LATAPOXY® grouts require routine cleaning with a neutral pH cleaner (e.g STONETECH® Stone & Tile Cleaner) 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.

TECHNICAL SERVICES/ CONTACT
Technical Assistance
Information is available by calling:

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Technical and safety literature
To acquire technical and safety literature, please visit our website at
se.laticrete.com