



Globally Proven
Construction Solutions

Rayshield Heat Reflective Waterproofing Membrane

LATICRETE Rayshield Heat Reflective Waterproofing Membrane is a one component liquid applied waterproofing membrane that provides excellent reflectance & elastomeric properties designed for exposed applications. Ideal for use on all new & old rooftops, terraces & balconies floors & walls.



FEATURES/BENEFITS

- Reduce heat transmission
- Able to accommodate movement & bridge cracks up to 3mm
- Excellent resistance to ultraviolet rays
- Reduce dirt pick up
- Foot trafficable when cured

USES

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

STANDARDS/CERTIFICATIONS

- ASTM D2370
- ASTM D2240
- ASTM C836
- ASTM E96
- ASTM E154
- ASTM G154



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

Suitable Substrates

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

* Interior applications only.

** If skim coated with a LATICRETE Latex Thin-Set Mortar.

***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
(36 commercial units / pallet)

Color: Grey & White

Approximate Coverage

25kg of LATICRETE Rayshield Heat Reflective Waterproofing Membrane yields approximately 24 m² 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 temperatures >0°C and <40°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.

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.

Cautions

Consult MSDS for more safety information.

- During wet weather, protect finished work until fully cured.
- May irritate eyes and skin. Avoid contact with eyes or prolonged contact with skin. In case of contact, flush thoroughly with water.
- Do not take internally.
- Keep out of reach of children.

TECHNICAL DATA

Physical Properties

Test	Test Method	Results
Tensile Strength	ASTM D2370	>2.1N/mm ²
Elongation at break	ASTM D2370	>580%
Shore Hardness	ASTM D2240	>68
Crack Bridging	ASTM C836	No cracks @ 2mm
Water Vapor Transmission	ASTM E96	<7g/m ² . 24h
Puncture Resistance	ASTM E154	>580N
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

LATICRETE Rayshield Heat Reflective Waterproofing Membrane can be applied using a paint brush, roller or trowel. Where movement is expected, LATICRETE Anti-Fracture Fabric / reinforcing mesh is recommended to be used to embed within liquid membrane. All areas must have at least two coats to ensure waterproofing capabilities. When using a paint roller, substrate will not show through LATICRETE Rayshield Heat Reflective Waterproofing Membrane.

INSTALLATION

Surface Preparation

Surface temperature must be 8 - 35°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 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 LATICRETE Latex Fortified Thin Set. Alternatively, a liberal coat of LATICRETE Rayshield Heat Reflective 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 LATICRETE Rayshield Heat Reflective 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 LATICRETE latex fortified thin-set mortar. Alternatively, a liberal coat of LATICRETE Rayshield Heat Reflective 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 LATICRETE Rayshield Heat Reflective Waterproofing Membrane approximately 200mm wide over substrate coves and floor/wall transitions using a paint brush or roller (heavy napped roller cover). Imbed 150mm LATICRETE Anti-Fracture Fabric (if necessary) and then apply a second coat of LATICRETE Rayshield Heat Reflective 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 LATICRETE Rayshield Heat Reflective Waterproofing Membrane liquid around and over the bottom half of drain clamping ring. Imbed 150mm LATICRETE Anti-Fracture Fabric (if necessary) and then apply a second coat of LATICRETE Rayshield Heat Reflective Waterproofing Membrane. When dry, apply a LATICRETE Latasil™ bead where the LATICRETE Rayshield Heat Reflective

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 LATICRETE Rayshield Heat Reflective Waterproofing Membrane liquid around penetration opening. Imbed 150mm LATICRETE Anti-Fracture Fabric (if necessary) and then apply a second coat of LATICRETE Rayshield Heat Reflective Waterproofing Membrane. Bring LATICRETE Rayshield Heat Reflective Waterproofing Membrane up to level of tile or stone. When dry, seal flashing with LATICRETE Latasil.

Priming

Substrate must be sound, clean & free of dust, if not it is strongly recommended to use LATICRETE Admix & Primer. Shake thoroughly before using. Pour, mop, or spray primer onto the surface. Apply an even thickness of primer to the prepared substrate using a bristle broom to ensure the primer is absorbed into the substrate, removing any puddles or thick areas. Allow the primer to dry to a clear film usually 30 – 45 minutes, but less than 3 hours before application of LATICRETE Rayshield Heat Reflective Waterproofing Membrane.

Note: Keep primed surface clean. Do not allow any foot traffic onto surface.

Mixing

Use direct from pail

Application

Allow any pre-treated areas to dry the touch. Apply a liberal coat of LATICRETE Rayshield Heat Reflective Waterproofing Membrane with brush or roller over substrate including pre-treated areas. Then embed the 150mm wide LATICRETE Anti-Fracture Fabric and allow to bleed through (if necessary). Let topcoat dry to the touch, approximately 1 – 3 hours at 21oC and 50% RH.

Apply second coat of LATICRETE Rayshield Heat Reflective Waterproofing Membrane. When second coat has dried to the touch,

inspect final surface for pinholes, voids, thin spot or other defects. Use additional LATICRETE Rayshield Heat Reflective Waterproofing Membrane to seal defects. 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 24 hours at 21°C and 50% RH.

Installing Finishes

Allow LATICRETE Rayshield Heat Reflective Waterproofing Membrane to dry for 24 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 LATICRETE Rayshield Heat Reflective 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 LATICRETE Latasil and backer rod.

Cleaning

Clean tools with water.