



Globally Proven
Construction Solutions

Vapor Reduction Coating

Vapor Reduction Coating is a single-coat, 100% solids, liquid applied 2-part epoxy coating specifically designed for controlling the moisture vapor emission rate from new or existing concrete slabs prior to installing underlayment and decorative toppings.



ADVANTAGES

- Component of the system warranty.
- Can be applied over new concrete in as little as 5 days.
- Fast cure – ability to apply finish floor goods or underlayments in as soon as 12 hours.
- Low odor & Easy to use.
- Compatible with underlayments as well as non-water based adhesives for hardwood, vinyl, carpet and tile.

MANUFACTURER

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USES

- Ensures protection of moisture/pH sensitive floor coverings.
- Reduces MVER from ≤ 25 to below 3 lbs/1000 ft²/24hr (170 pg/(s • m²)).
- Use on concrete up to 100% RH / 14 pH.
- Ideal for slab-on-grade construction and elevated slabs.
- Allows for the installation of vinyl, rubber, VCT, carpet, wood, ceramic tile, stone and other moisture sensitive floor coverings, floor adhesives, epoxies and most resinous coatings.

PACKAGING / COLOR

Packaging Sizes:

Full Unit Kit*: 6.5 Gal (24.6 L) Part A 2.2 Gal (8.3 L) packaged in a steel pail Part B 4.3 Gal (16.3 L) packaged in a steel pail

Mini Unit Kit*: 2.4 Gal (9.1 L) Part A 0.8 Gal (3 L) packaged in a steel pail Part B 1.6 Gal (6.1 L) packaged in a steel pail

Suitable Substrates

- Concrete Slabs

Coverage

0.3mm (12mils) - 46m² - 51m² 0.4mm (16mils)-35m² - 38.6 m²

Shelf Life

Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored off the ground in a dry area, at temperatures 0 - 43 °C.

Limitations

- Vapor Reduction Coating is not a waterproofing membrane and is not intended to stop liquid water intrusion through or into the slab.
- Not for use over any other substrates other than concrete slabs cured for a minimum of 5 days at 70°F (21°C)
- All existing expansion joints, cold joints and control joints must be brought up through the Vapor Reduction Coating and the finish. Failure to honor movement joints will result in cracking and/or loss of bond.
- Vapor reduction coating is not responsible for moisture vapor emission from any movement joints, existing cracks, new cracks that may develop or voids in the Vapor Reduction Coating in the concrete slab after the system has been installed.

Cautions

- Before using any LATICRETE product: Check www.laticrete.com/www.laticrete.me for any technical bulletins or updated information about the product and its application, Contact your local LATICRETE Technical Sales representative with any questions
- Consult MSDS for more safety information
- Vapor Reduction Coating Part A is harmful if swallowed. Harmful if inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child. Toxic to aquatic life with long lasting effects.
- Vapor Reduction Coating Part B causes skin irritation. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects.
- Once material is fully mixed the reaction may generate high heat if left in mixing container for an extend period of time.
- Do not mix Vapor Reduction Coating in a plastic bucket.**
- Do not take Internally
- Keep out of reach of children

TECHNICAL DATA**Standard/ Certifications**

- ASTM E96
- C1583
- C7234
- D1308

Performance Properties

Specifications subject to change without notification.

Results shown are typical but reflect test procedures used.

Actual field

Test	Test Method	Results
Vapor Permeance at 12 mil thickness	ASTM E96	0.052 grains/h/ft ² /in. Hg (3 ng/h • m ² • Pa) CTL Project 281426
Tensile Strength (7 days)	ASTM C1583	> 410 psi (> 2.8 MPa) Concrete Failure
Pull off Adhesion Strength	ASTM C7234	> 480 psi (> 3.3 MPa)
Alkalinity Resistance	ASTM D1308	Pass (resist up to 14 pH)

performance will depend on installation methods and site conditions.

INSTALLATION SYSTEM**Surface Preparation****Installation over Concrete Slabs**

Concrete slabs must be clean, structurally sound, absorptive, and have an ICRI concrete surface profile (CSP) of 3 - 5. All dirt, oil, paint, laitance, efflorescence, sealers, curing compounds and any other bond breaking contaminants must be removed down to the full depth of contamination by shot blasting or other mechanical means then swept and vacuumed clean. Use of chemicals to remove contaminants is prohibited. Use of sweeping compound is not recommended as they may contain oil, which can act as a bond breaker. Do not use over gypsum or asphalt-based products. Water drop test (Refer to TDS 230D for water drop test instruction) is recommended prior to application of Vapor Reduction Coating. If the water drop test yields a non-suction results where the water beads up and does not absorb, please contact LATICRETE Technical Sales Representative. Per ASTM F3010, concrete slab to receive Vapor Reduction Coating must have a tensile pull-off strength of 200 psi (1.4 MPa) or greater when tested in accordance with ASTM C1583.

Surface temperature must be 10–32°C during application and for 24 hours after 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.

Joints, Cracks, Surface Depressions and Other Irregularities

All joints and cracks should be evaluated and repaired if necessary prior to installation of Vapor Reduction Coating. A good crack repair technique depends on knowing the causes and selecting appropriate repair procedures that take these causes into account. Repairing a crack without addressing the cause may only be a temporary fix. Successful long-term repair procedures must address the cause of the crack as well as the crack itself. Refer to ACI 224.1R for guidance on evaluation and repair of cracks in concrete. product application over moving cracks and joints is not recommended.

1. Moving joints (e.g. expansion joints, isolation joints, etc.) and dynamic cracks must be honored up through the Vapor Reduction Coating. it is not responsible for vapor emission through untreated joints or for areas where cracks may develop later.

2. All non-moving joints and dormant cracks (e.g. saw cuts, surface cracks, grooves, etc.) must be cleaned out and free of all loose debris. Non- structural cracks up to 3 mm in width can be filled with Vapor Reduction Coating epoxy during main application. Inspect these areas to ensure cracks are completely filled with no voids.

3. Non-moving joints, dormant cracks greater than 3 mm wide, can be patched with mixture of 1 part Vapor Reduction Coating and 3 parts clean, washed play sand. In a suitable container, such as an empty Vapor Reduction Coating pail, pour 1 part Vapor Reduction Coating pre-blended to 3 parts clean, washed play sand, using a 300 rpm drill with jiffy paddle, mix together for 2-3 minutes until the Vapor Reduction Coating and qualified sand mixture is consistent. Slowly pour the mixture into the crack, using the flat side of a trowel force the mortar into the crack. Surface crazing and hairline cracks do not need filling. Construction joints, expansion joints and large moving cracks that have lost aggregate lock (one side of crack is higher than the other) have structural implications and cannot be repaired using this method.

Moisture Evaluation

Moisture testing must be conducted in accordance with finish floor goods and adhesive manufacturers' requirements prior to Vapor Reduction Coating application. When evaluating moisture conditions the HVAC system or a properly conditioned temporary enclosure must be operational and in place for the

minimum specified time period recommended in the moisture test standard. The concrete floor slabs and the ambient air space above the floor must be at service temperature and relative humidity for at least 48 hours before taking moisture measurements in the concrete slab. These conditions must remain throughout the test period to ensure accurate results.

Mixing

Before using, store resins at room temperature 65-85°F (18-30°C) for 24 hours to ensure ease of mixing. Mix components A and B to a ratio of 1:2 by volume (components are packaged into the pails to the specified ratio). Pour the A component into the larger B component steel pail. Verify that all of the Part A liquid is drained from pail.

Mix with a slow speed drill (<300 RPM) with a jiffy blade for 3 minutes, assuring mixture is fully uniform and that all ribbons of contrasting shade are completely eliminated. Pour the fully mixed material onto the substrate immediately after mixing.

Mixing for pigment Base

Add SPARTACOTE® Epoxy Pigment to Vapor Reduction Coating Pigment Base Short Filled Part B and mix for 1-2 minutes with a high speed drill (>600 RPM). Once fully mixed, add pigmented part A to part B and follow mixing instructions above

Add 0.5 gal (1.9 L) SPARTACOTE Epoxy Pigment to a 2.2 Gal (8.3 L) unit of Vapor Reduction Coating Pigment Base and mix as directed above.

Add 0.2 gal (0.8 L) SPARTACOTE Epoxy Pigment to a 0.8 Gal (3 L) unit of Vapor Reduction Coating Pigment Base and mix as directed above. NOTE: To help reduce fish eyes and pinholes apply a fine mist of water on top of the prepared concrete using a pump garden type sprayer and allow moisture to absorb just prior to applying Vapor Reduction Coating. Broom out excess water. Concrete should readily absorb water. Do not apply MVB there is standing water on top of the concrete. If water beads or does not absorb within 60 seconds additional surface prep is needed.

Application

Pour ribbons of Vapor Reduction Coating onto the prepared concrete and spread using appropriate round or square notch squeegee that is designed to apply the desired mil thickness in a single coat. Apply an even coat making sure to cover all areas thoroughly. Immediately following, while epoxy is still wet, use a high quality 3/8" (9 mm) nap non- shedding paint roller to back-roll at 90° from the squeegee direction to help ensure full coverage and uniform thickness. When using Vapor Reduction Coating Pigment Base coat for Spartacote CHIP or Spartacote QUARTZ, apply Vapor Reduction Coating at 16 mil thick then broadcast chip or quartz into MVB immediately after

back rolling. Replace worn squeegee blades and paint rollers when necessary to help ensure proper application. Use a paint brush to apply epoxy around penetrations, columns, and any other obstructions. Periodically check mil thickness using a Vapor Reduction Coating Wet Film Thickness Gauge.

Allow to cure for 12 hours at 50-90°F (10-32°C) prior to installation of underlayment finish flooring, and prior to removing excess SPARTACOTE CHIP or SPARTACOTE QUARTZ aggregate. Always consult flooring and adhesive manufacturer's installation instructions, restrictions and confirm compatibility with Vapor Reduction Coating. Always test performance and compatibility of floor systems prior to application.

Floor goods, including polyaspartic coating, and self-leveling underlayments shall be installed over Vapor Reduction Coating as soon as the epoxy is slightly tacky to the touch with no transfer; typically 12 hours after application depending on ambient and substrate conditions. The maximum time to install goods and self-leveling underlayments over Vapor Reduction Coating is 3 days provided that the surface is protected from traffic, dust, debris, water and any other contaminants. If Vapor Reduction Coating is left open and unprotected longer than 3 days or the surface becomes contaminated, contact LATICRETE Technical Sales Representative. LATICRETE® Self-leveling underlayments require the use of LATICRETE Primer. Refer to TDS 230D for detailed primer installation instructions. Always refer to finished floor manufacturer's recommendations regarding installation instructions, restrictions, moisture conditions and compatibility. Always test performance suitability and compatibility of finished floor systems prior to their application. Sample surfaces should be installed as a field test so as to be representative of entire surface and tested for intended use.

AVAILABILITY AND COST

Availability: **LATICRETE materials are available worldwide.**

For Distributor information, call: + 971 7 244 6396

Cost: Contact a LATICRETE Distributor in your area.

WARRANTY

The supplier warrants that the product will not deteriorate under normal conditions and use. The warranty validity of one (1) year. Contact Technical Support for further information

MAINTENANCE

LATICRETE® products are of high quality designed to

achieve lasting installations and avoid maintenance, however performance and durability may depend on properly maintaining products, depending of the cleaning products used.

TECHNICAL SERVICES

Information is available by calling the LATICRETE Technical Service

Telephone: + 971 7 244 6396

Technical and Safety Literature

To acquire technical and safety literature, please visit our website at

www.laticrete.me / www.laticrete.com

Warning

The information and the instructions in the data sheet, although based on knowledge gained through years of applications, are indicative. LATICRETE® unable to directly control the installation conditions and modalities of application of products, do not assume any liability arising from their implementation. Those who want to use the LATICRETE® products must conduct adequate tests to determine the site specifications. Results shown are typical but reflect test procedures used. Actual field performance will depend on installation method and site conditions.