



VAPOR BAN™ E

DS-36647-1022

**Globally Proven
Construction Solutions**



1. PRODUCT NAME

VAPOR BAN™ E

2. MANUFACTURER

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3. PRODUCT DESCRIPTION

LATICRETE VAPOR BAN E 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. VAPOR BAN E exceeds the ASTM F3010 standard with a perm rating of 0.052 grains/h/ft²/in. Hg (3 ng/h • m² • Pa) at 12 mil thickness.

LATICRETE VAPOR BAN E can be pigmented with SPARTACOTE Universal Pigments (a line of concentrated colorants compatible with all clear SPARTACOTE polyaspartic, epoxy and urethane resins) for use as a base coat or broadcast coat with SPARTACOTE system offerings.

LATICRETE VAPOR BAN E can be used with our NXT and SUPERCAP line of high performing self-leveling underlayments and traffic bearing overlays.

Uses

- Ensures protection of moisture/pH sensitive floor coverings.
- Reduces MVER from ≤25 lbs to below 3 lbs/1000 ft²/24hr (170 µg/(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 most resinous coatings, vinyl, rubber, VCT, carpet, wood, ceramic tile, stone and other moisture sensitive floor coverings.
- Can be used as a primer for slabs contaminated by petroleum, vegetable oil, and other chemicals.
- Direct replacement: NXT Vapor Reduction Coating & SUPERCAP Moisture Vapor Control

Advantages

- Exceeds the ASTM F3010 standard
- Use on concrete up to 100% RH / 14 pH
- Reduces MVER ≤25 lbs to below 3 lbs/1000ft²/24hrs (170 µg/(s•m²))
- Can be applied over new concrete in as little as 5 days
- UL GREENGUARD Gold Certified
- Low odor
- Oil Tolerant
- Can be tinted with SPARTACOTE Universal Pigments
- Apply resinous coatings and finish floor goods in as soon as 12 hours
- Can be used as a broadcast coat for SPARTACOTE® Chip PURE and SPARTACOTE® Quartz PURE systems
- Compatible with SPARTACOTE systems, most resinous coatings and other moisture sensitive flooring
- Compatible with NXT underlayments and decorative overlays
- Compatible with non-water based adhesives for hardwood, vinyl, carpet and tile

Suitable Substrates

- Concrete
- CMU
- Tile
- Wall Board

Packaging

LATICRETE VAPOR BAN E is mixed at a 2A:1B by volume.

3 Gal Kit

- Part A: 2 gal in a 4 gal pail
- Part B: 1 gal in a 2.5 gal pail

5 Gal Kit

- Part A: 3.3 gal in a 7 gal pail
- Part B: 1.7 gal in a 2.5 gal pail

Approximate Coverage

WFT	DFT	Coverage
12.0 mils (0.30mm)	12.0 mils (0.30mm)	133 ft ² /gal (3.2 m ² /L)
16.0 mils (0.41 mm)	16.0 mils (0.41 mm)	100 ft ² /gal (2.5 m ² /L)

WFT = Wet Film Thickness

DFT = Dry Film Thickness

When using LATICRETE VAPOR BAN E as a broadcast coat for SPARTACOTE CHIP or SPARTACOTE QUARTZ, apply at 16 mils WFT then broadcast chip or quartz into resin immediately after back rolling.

Coverage values are approximate and will vary based on surface condition, preparation methods and application technique.

Shelf Life

Factory sealed containers of this product are guaranteed to be of first quality for two (2) years.

Limitations

- Not for use as a waterproofing membrane and is not intended to stop liquid water intrusion through or into the slab.
- Substrate temperature must be between 50°F (10°C) and 90°F (32°C)
- Ambient relative humidity must not exceed 90%
- Substrate temperature must be 5°F (3°C) above dew point
- LATICRETE is not responsible for moisture vapor emission from any movement joints, existing cracks, new cracks that may develop or voids in the VAPOR BAN E coating in the concrete slab after the system has been installed
- LATICRETE is not responsible for any aesthetic issues or pinholes that arise from concrete off-gassing
- Product is not UV Stable and intended for interior applications only

Cautions

- Consult SDS for more safety information
- Part A causes severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child.
- Part B causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction.

- Check www.laticrete.com for any technical bulletins or updated information about the product and its application.
- Contact your local LATICRETE Technical Sales Representative with any questions.
- Once material is fully mixed the reaction may generate high heat if left in mixing container for an extended period of time.
- Do not mix in a plastic bucket.
- Do not take internally
- Keep out of reach of children
- Wear eye protection, protective gloves and protective clothing when handling Parts A and B.

4. TECHNICAL DATA



VOC/LEED Product Information

<100 g/L (as intended for use)

Physical Properties

Property	Test Method	Result
Vapor Permeance at 12 mils	ASTM E96	0.052 grains/h/ft ² /in. Hg (3 ng/h • m ² • Pa)
Adhesion	ASTM D7234	>480 psi (>3.3 MPa) Substrate Failure
Tensile Strength	ASTM C1583	>410 psi (2.8 MPa)
Alkalinity Resistance	ASTM D1308	Pass (Resist up to 14 pH)

Working Properties

Property	Value
Mix Ratio	2 Part A : 1 Part B by volume
Working Time	20-30 minutes
Minimum Re-Coat Time	12 hours
Maximum Re-Coat Time	72 hours
Full Cure	7 days

Working properties based on 70°F & 50% RH. Changes in ambient conditions may cause times to vary.

Specifications subject to change without notification. Results shown are typical but reflect test procedures used. Actual field performance will depend on installation methods and site conditions.

5. INSTALLATION

Surface Preparation

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 mechanical means then swept and vacuumed clean. 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. If wet grinding, allow surface to fully dry prior to coating.

Concrete slabs must be porous and readily absorb water prior to installation. Refer to ASTM F3191 for concrete water absorption test. If the water absorption test results non-porous/non-absorptive contact LATICRETE Technical Sales Representative.

Concrete slab to receive LATICRETE VAPOR BAN E must have a tensile pull-off strength of 200 psi (1.4 MPa) or greater when tested in accordance with ASTM F3010. Surface temperature must be 50–90°F (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.

Degreasing Oil Contaminated Concrete

For slabs containing moderate amounts of oil, after preparing the slab by mechanical profiling concrete surface to ICRI CSP 3-5, clean the concrete using L&M CITREX citrus based degreasing agent per ICRI Guideline No. 310.2R-2013 Section 8.4. Note that the degreasing process may need to be repeated several times when testing shows heavy contamination a citrus degreaser may not be sufficient. Once the floor is degreased, thoroughly rinse the concrete using 3000 psi pressure washer. Allow slab to dry completely before applying.

Joints, Cracks, Surface Depressions and Other Irregularities

All joints and cracks should be evaluated and repaired if necessary prior to installation of LATICRETE VAPOR BAN E. 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. Moving joints (e.g. expansion joints, isolation joints, etc.) and dynamic cracks must be honed up through the coating. LATICRETE is not responsible for vapor

emission through untreated joints or for areas where cracks may develop later.

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 1/8" (3 mm) in width can be filled with LATICRETE VAPOR BAN E during main application. Inspect these areas to ensure cracks are completely filled with no voids

Non-moving joints, dormant cracks greater than 1/8" (3 mm) wide, can be patched with a mixture of 1 part mixed LATICRETE VAPOR BAN E and 3 parts clean, dry 30-mesh sand or quartz. In a suitable container, pour 1 part LATICRETE VAPOR BAN E pre-blended to 3 parts clean, dry play sand, using a 300 rpm drill with jiffy paddle, mix together for 2-3 minutes until all material is wetted out and the 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 the 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 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.

Tinting with SPARTACOTE Universal Pigments

If desired, VAPOR BAN E may be tinted with SPARTACOTE Universal Pigments. Best practice is to mix in gallon increments or full kits. Measure out appropriate amounts of parts A and B, observing 2A:1B vol. mix ratio, prior to adding SPARTACOTE Universal Pigments.

Required loading for SPARTACOTE Universal Pigments is (1) small unit per gallon of mixed resin (A+B) or (1) large unit per 5 gallons of mixed resin. 3 gal kits will require (3) small SPARTACOTE Universal Pigments and 5 gal kits will require (5) small or (1) large SPARTACOTE Universal Pigment units. White, Safety Yellow and Safety Red require doubling the loading level.

Mix parts A and B according to instructions below then immediately add full contents of SPARTACOTE Universal Pigment unit(s) at the required loading directly

into mix and use a slow speed drill with jiffy paddle to fully disperse the pigments until a uniform color and consistency is achieved, approximately 2 additional minutes. Immediately after mixing apply product to properly prepared substrate.

Mixing

Before using, store resins at room temperature 65-85°F (18-30°C) for 24 hours to ensure ease of mixing. Prior to mixing, stir individual components to disperse any materials that may have settled.

Combine 2 parts A (resin) with 1 part B (hardener) by volume. Mix for 2-3 minutes with a slow speed drill (<300 rpm) with a jiffy blade until a uniform consistency and appearance is achieved. Immediately after mixing apply product to properly prepared substrate.

Application

LATICRETE VAPOR BAN E may be applied by brush, roller, resin broom and/or notched squeegee.

- When using as a primer for NXT underlayments and decorative overlayments apply at a nominal thickness of 12 mils WFT (0.30 mm) or a spread rate of 133 ft²/gal (3.2 m²/L).
- When using as a vapor reduction coating for moisture sensitive flooring (vinyl, VCT, carpet, wood, etc.) apply at a nominal thickness of 12 mils WFT (0.30 mm) or a spread rate of 133 ft²/gal (3.2 m²/L).
- When using as a base coat in SPARTACOTE® GUARD or METALLIC systems apply at a nominal thickness of 12 mils WFT (0.30 mm) or a spread rate of 133 ft²/gal (3.2 m²/L).
- When using as a broadcast coat in SPARTACOTE CHIP or QUARTZ systems apply at a nominal thickness of 16 mils WFT (0.41 mm) or a spread rate of 100 ft²/gal (2.4 m²/L)

Pour ribbons of LATICRETE VAPOR BAN E onto the prepared concrete and spread to the desired mil thickness as outlined above. Spread evenly over all prepared surfaces and immediately backroll with a high quality 3/8" nap non-shedding roller to ensure full coverage and uniform thickness. Periodically check film thickness with a wet film gage.

When used in SPARTACOTE resinous coating systems, to aid in inter-coat adhesion, it is recommended to lightly buff and acetone wipe the surface prior to re-coating and anytime re-coat window exceeds 24 hours.

Allow to cure for 12 hours at 50-90°F (10-32°C) prior to installation of underlayments, overlayments, finish flooring or recoating. Always consult flooring and adhesive manufacturer's installation instructions, restrictions and confirm compatibility with LATICRETE VAPOR BAN E. Always test performance and compatibility of floor systems prior to application.

SPARTACOTE Broadcast Applications

Immediately after applying LATICRETE VAPOR BAN E and while the material is still wet broadcast media (chips or quartz) with either a mechanical sprayer or by hand in a "rainfall pattern" into the wet resin to refusal or rejection (full coverage). There should be no resin showing or visible "wet" areas. If necessary, broadcast additional material.

Allow to cure for a minimum 12 hours at 50-90°F (10-32°C) prior to cleaning surface and applying topcoat.

NXT Traffic Bearing Overlayment Installation

LATICRETE VAPOR BAN E must be used with a sand broadcast when applied as a moisture vapor barrier before a NXT Self Leveling Overlay application. Refer to TDS230 (Substrate Preparation and Primer Guide) for surface preparation and installation instructions.

NXT Self-Leveling Underlayment Installation

When using LATICRETE VAPOR BAN E as a moisture vapor barrier before a NXT Self-Leveling Underlayment applications, a primer or sand broadcast is required. LATICRETE Prime-N-Bond or NXT Primer (slurry coat) can be installed over LATICRETE VAPOR BAN E 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. Refer to TDS230 (Substrate Preparation and Primer Guide) for surface preparation and installation instructions. The maximum time to install finished floor goods over VAPOR BAN E is 3 days provided that the surface is protected from traffic, dust, debris, water and any other contaminants. If LATICRETE VAPOR BAN E becomes contaminated, contact LATICRETE Technical Sales Representative.

Finish Flooring Installation

In all cases the LATICRETE VAPOR BAN E surface must be protected from traffic, dust, debris, rain, and any other contaminants. Finish floor goods can be installed over LATICRETE VAPOR BAN E 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 surface should be protected from traffic, dust, debris, water and any other contaminants. If LATICRETE VAPOR BAN E is left open and becomes contaminated, contact LATICRETE Technical Sales Representative. Tile or stone can be installed using LATAPOXY® 300 Adhesive or 254 Platinum. 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. Please always refer to the adhesive/finish floor manufacturer installation instructions or requirements.

Important:

Mock-ups and field test areas are required in order to validate performance and appearance related characteristics (including but not limited to color, inherent surface variations, wear, anti dusting, abrasion

resistance, chemical resistance, stain resistance, coefficient of friction, etc.) to ensure system performance as specified for the intended use, and to determine approval of the coating system.

Variability in job site conditions (including but not limited to surface preparation, sunlight, humidity, dew point, temperature, etc.) during application of SPARTACOTE products may lead to fisheyes, blistering, pinholes, wrinkling, or outgassing of air in the concrete and are not product defects. Double priming, shading or evening application may be required.

Cleaning

Use acetone or xylene to clean tools and equipment.

6. AVAILABILITY AND COST

Availability

LATICRETE materials are available worldwide.

For Distributor Information, Call:

Toll Free: 1.800.243.4788
Telephone: +1.203.393.0010

For on-line distributor information, visit LATICRETE at laticrete.com

Cost

Contact a LATICRETE Distributor in your area.

7. WARRANTY

See 10. FILING SYSTEM:

8. MAINTENANCE

LATICRETE installation materials require no maintenance but installation performance and durability may depend on properly maintaining products supplied by other manufacturers.

The long-term performance, appearance, and life expectancy of wear surface products are critically dependent upon a good routine maintenance program designed specifically for the installed wear surface. SPARTACOTE resinous floor coating systems are nonporous, causing dirt and contaminants to remain on the surface. The use of properly placed walk-off mats, inside and outside, will help increase the life of the floor. Recommend maintenance program consist of frequent and thorough cleaning utilizing a neutral pH cleaner. The frequency of washing will vary depending on floor usage type, traffic, and age.

9. TECHNICAL SERVICES

Technical Assistance

Information is available by calling the LATICRETE Technical Service Hotline:

Toll Free: 1.800.243.4788, ext. 1235
Telephone: +1.203.393.0010, ext. 1235
Fax: +1.203.393.1948

Technical and Safety Literature

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

10. FILING SYSTEM

Additional product information is available on our website at laticrete.com. The following is a list of related documents:

- DS 230.13: LATICRETE 1 Year Product Warranty
- DS 502.0: NXT® Primer
- TDS 230N: NXT Substrate Preparation and Primer Guide
- DS 087.1: SPARTACOTE Epoxy Pigment
- DS 086.3: SPARTACOTE Blended Chip
- DS 087.2: SPARTACOTE Blended Quartz

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