



VAPOR BAN™ ER

DS-35216-0220

**Globally Proven
Construction Solutions**



1. PRODUCT NAME

VAPOR BAN™ ER

2. MANUFACTURER

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3. PRODUCT DESCRIPTION

VAPOR BAN ER is a rapid curing, single-coat moisture vapor barrier designed for controlling the moisture vapor emission rate from new or existing concrete slabs. A two-part, 100% solids epoxy, VAPOR BAN ER exceeds ASTM F3010 standard with a perm rating of <math><0.1 \text{ grains/h/ft}^2 \text{ /in. Hg}</math> (

For decorative and resinous coating applications, VAPOR BAN ER can be pigmented through the use of SPARTACOTE Epoxy Pigments and can accept broadcasts of either SPARTACOTE Blended Chip or SPARTACOTE Blended Quartz without negatively affecting its performance.

SPARTACOTE Epoxy Pigment is available in 8 different colors: Black, White, Light Grey, Medium Grey, Dark Grey, Sand Beige, Dark Beige and Tile Red. Custom colors are available upon request.

Uses

- Ensures protection of moisture/pH sensitive floor coverings.
- Reduces MVER from ≤ 25 to below 3 lbs/1000 ft² /24hr ($170 \mu\text{g}/(\text{s} \cdot \text{m}^2)$).
- 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.

Advantages

- Rapid curing allows for fast return to service
- Exceeds ASTM F3010 standard
- Can be applied over new concrete in as little as 5 days
- Oil Tolerant
- Compatible with SPARTACOTE resinous coatings
- Can be pigmented with SPARTACOTE Epoxy Pigments
- Can be used as a broadcast coat for SPARTACOTE Chip and SPARTACOTE Quartz systems.
- Provides protection for the installation of moisture sensitive coatings

Suitable Substrates

- Backer Board
- CMU
- Concrete

Packaging

- 9223-0024-2 Clear Kit: 2.4 gal (9.1L) kit
Part A: 1.0 gal (3.8L)
Part B: 1.4 gal (5.3L)
- 9223-0022-2 Pigment Base Kit: 2.2 gal (8.3L) kit
Part A: 1.0 gal (3.8L)
Part B: 1.2 gal (4.5L)
SPARTACOTE Epoxy Pigments: 1 Qt [0.2 Gal (0.8L)] sold separately

Approximate Coverage

16 mils (0.4 mm)	100 ft ² /gal (2.4 m ² /L)
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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

- 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
- For interior use only

Cautions

- FOR PROFESSIONAL USE ONLY
- Thoroughly read all technical data sheets, application guidelines, warranty disclaimers and Safety Data Sheets (SDS) prior to use. Application guides are available at www.laticrete.com.
- Wear protective gloves, protective clothing and eye protection.
- Keep out of reach of children

4. TECHNICAL DATA

Physical Properties

Test	Test Method	Results
Vapor Permanence at 16 mils (0.4 mm)	ASTM F3010 / ASTM E96	<0.1 grains/h/ft ² /in Hg (<5.40 ng/s-m ² -Pa)
Pull off Adhesion Strength	ASTM D7234	>300 psi (>2.1 MPa) Concrete Failure
Alkalinity Resistance	ASTM D1308	Pass (Up to 14 pH)

Working Properties

Property Name	Property Value
Working Time	30 Minutes
Minimum Re-Coat Time	3-4 Hours
Maximum Re-coat Time	24 Hours
Foot Traffic / Vehicular Traffic	5 hours / 24 hours
Full Cure	7 Days

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

Moisture Evaluation

Moisture testing must be conducted in accordance with finish floor goods and adhesive manufacturers' requirements prior to VAPOR BAN ER 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.

Surface Preparation - Concrete

Surfaces to be coated must be thoroughly cleaned and structurally sound. Always check the surface for any bond inhibitors prior to application. 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 chemicals which can act as a bond breaker. Any repairs must be addressed prior to application and should be repaired in accordance with ICRI standards. Do not use over gypsum or asphalt based products. 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 must be mechanically profiled to an ICRI CSP-3 to 5. Ensure that all surface laitance is removed prior to coating. The prepared surface should 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 maintained at 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.

Surface Preparation - Oil Contaminated Concrete

Surfaces to be coated must be thoroughly cleaned of gross contaminants, oil and grease that may impede adhesion prior to application. Always check the surface for any bond inhibitors prior to application. 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 a 3000 psi pressure washer. Any repairs

must be addressed prior to application and should be repaired in accordance with ICRI standards.

After the degreasing process, concrete must be mechanically profiled to an ICRI CSP-3 to 5. Ensure that all surface laitance is removed prior to coating. The prepared surface should 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 maintained at 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.

Joints, Cracks, Surface Depressions and Other Irregularities

All joints and cracks should be evaluated and repaired if necessary prior to installation of VAPOR BAN ER. 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.

When using in resinous and decorative coating applications, SPARTACOTE product application over moving cracks and joints is not recommended. Moving joints (e.g. expansion joints, isolation joints, etc.) and dynamic cracks must be honored up through the VAPOR BAN ER 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 VAPOR BAN ER 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 VAPOR BAN ER and 3 parts clean, kiln dried sand. 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.

Mixing

Before using, store resins at room temperature 65-85°F (18-30°C) for 24 hours to ensure ease of mixing. Mix Part A and Part B to a ratio of 2A:3B by volume (components are packaged into the pails to the specified ratio). Pour the Part A into the larger Part B steel pail. Verify that all of the Part A liquid is drained from the 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

When adding pigments to VAPOR BAN ER, use the short filled pigment base kit. Pigments are to be added to the short filled Part B.

VAPOR BAN ER is designed for use with SPARTACOTE Epoxy Pigments. Use (1) one quart [0.2 gal (0.8 L)] unit of SPARTACOTE Epoxy Pigments per small kit of VAPOR BAN ER pigment base. Add full unit of SPARTACOTE Epoxy Pigment to VAPOR BAN ER Pigment Base Short Filled Part B and mix for 1-2 minutes with a high speed drill (>600 RPM). Once fully mixed, add Part A to pigmented Part B and follow mixing instructions above.

Application

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 BAN ER. Broom off excess water. Immediately after mixing, pour ribbons of VAPOR BARRIER ER onto the prepared concrete and spread using a SPARTACOTE Resin Broom or a notched squeegee that is designed to apply the desired mil thickness in a single coat. Suggested application thickness is 16 mils (0.4 mm). Apply an even coat making sure to cover all areas thoroughly. Immediately following, while the epoxy is still wet, use a SPARTACOTE Roller Skin or other 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. Replace worn squeegee blades and paint rollers when necessary to help ensure proper application. Use a paintbrush around penetrations, columns, and any other obstructions. Periodically check mil thickness using a wet film thickness gauge.

Concrete should readily absorb water. Do not apply VAPOR BAN ER if there is standing water on top of the concrete. If water beads or does not absorb within 60 seconds additional surface prep is needed.

Resinous and decorative flooring

When using in resinous or decorative coating applications, to aid in inter-coat adhesion, it is recommended to lightly buff and acetone wipe the surface prior to re-coating. When using VAPOR BAN ER as a broadcast coat for SPARTACOTE Chip or SPARTACOTE Quartz systems, apply VAPOR BAN ER at a thickness of 16 mils then broadcast chip or quartz into the wet coating immediately after back rolling. Allow to cure for 3-4 hours at 50-90°F (10- 32°C) prior to recoating or removing excess SPARTACOTE Chip or SPARTACOTE Quartz aggregate.

Additional coats can be installed over VAPOR BAN ER as soon as the epoxy is slightly tacky to the touch with no transfer; typically 3-4 hours after application

depending on ambient and substrate conditions. The maximum re-coat time over VAPOR BAN ER is 24 hours provided that the surface is protected from traffic, dust, debris, water and any other contaminants. If VAPOR BAN ER is left open and unprotected longer than 24 hours or the surface becomes contaminated, contact a LATICRETE Technical Sales Representative.

Finish flooring and self-leveling underlayments

Floor goods including self-leveling underlayments can be installed over VAPOR BAN ER as soon as the epoxy is slightly tacky to the touch with no transfer; typically 3-4 hours after application depending on ambient and substrate conditions. The maximum time to install goods and self-leveling underlayments over VAPOR BAN ER is 24 hours provided that the surface is protected from traffic, dust, debris, water and any other contaminants. If VAPOR BAN ER is left open and unprotected longer than 24 hours or the surface becomes contaminated, contact a LATICRETE Technical Sales Representative.

NXT self-leveling underlayments require the use of NXT LEVELEX™ Primer. Refer to TDS 230N 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 the entire surface and tested for the intended use.

Note

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 VAPOR BAN ER and SPARTACOTE products may lead to fisheyes, blistering, pinholes, wrinkling, or outgassing of air in the concrete and are not product defects. Multiple coats, shading or evening application may be required.

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:

- DS 230.13: 1 Year Product Warranty

8. MAINTENANCE

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 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. Please Refer to TDS 420 "SPARTACOTE™ Floor Maintenance Guide" available at www.laticrete.com for more information.

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 Product Warranty
- DS 502.0: NXT Primer
- TDS 230N: NXT Substrate Preparation and Primer Guide
- DS 087.1: SPARTACOTE Epoxy Pigment
- DS 086.7: SPARTACOTE Blended Chip
- DS 097.2: SPARTACOTE Blended Quartz
- TDS 420: SPARTACOTE Floor Maintenance Guide

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