



SPARTACOTE™ Moisture Vapor Barrier

DS-36626-0720

**Globally Proven
Construction Solutions**



1. PRODUCT NAME

SPARTACOTE™ Moisture Vapor Barrier

2. MANUFACTURER

LATICRETE International, Inc.
1 LATICRETE Park North
Bethany, CT 06524-3423 USA

Telephone: +1.203.393.0010, ext. 1235

Toll Free: 1.800.243.4788, ext. 1235

Fax: +1.203.393.1684

Website: laticrete.com

3. PRODUCT DESCRIPTION

SPARTACOTE Moisture Vapor Barrier 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. SPARTACOTE Moisture Vapor Barrier exceeds ASTM F3010 standard with a perm rating of 0.052 grains/h/ft²/in. Hg (3 ng/h • m² • Pa). SPARTACOTE Moisture Vapor Barrier is oil tolerant and reduces the emission of oils and other chemicals from the substrate.

SPARTACOTE Moisture Vapor Barrier can be pigmented with SPARTACOTE Epoxy Pigment for use as a base coat or broadcast coat with SPARTACOTE® system offerings. SPARTACOTE Epoxy Pigment is available in 8 different colors: Black, White, Light Grey, Medium Grey, Dark Grey, Sand Beige, Dark Beige and Tile Red.

Uses

- Ensures protection of moisture/pH sensitive floor coverings.
- Reduces MVER from ?25 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.

Advantages

- Exceeds ASTM F3010 standard
- Can be applied over new concrete in as little as 5 days
- Apply resinous coatings and finish floor goods in as soon as 12 hours
- UL GREENGUARD Gold Certified
- Low odor
- Easy to use
- Compatible with SPARTACOTE systems, most resinous coatings and other moisture sensitive flooring.
- Oil Tolerant
- Can be pigmented with SPARTACOTE Epoxy Pigments
- Can be used as a broadcast coat for SPARTACOTE Chip PURE and SPARTACOTE Quartz PURE systems.

Suitable Substrates

- Concrete

Packaging

- Full Unit Kit - Part A: 2.2 Gal (8.3L) packaged in a steel pail
- Full Unit Kit - Part B: 4.3 Gal (16.3L) packaged in a steel pail.
- Mini Unit Kit - Part A: 0.8 Gal (2.8L) packaged in a steel pail .
- Mini Unit Kit - Part B: 1.7 Gal (6.6L) packaged in a steel pail .
- Pigment Base Full Unit Kit - Part A: 2.2 Gal (8.3L.) packaged in a steel pail .

- Pigment Base Full Unit Kit - Short Filled Part B: 3.8 Gal (14.3L) packaged in a steel pail to receive 0.5 Gal (1.9L) of SPARTACOTE Epoxy Pigments
- Pigment Base Mini Unit Kit - Part A: 0.8 Gal (3L) packaged in a steel pail .
- Pigment Base Mini Unit Kit - Short Filled Part Part B: 1.4 Gal (5.3L) packaged in a steel pail to receive 0.2 Gal (0.8L) of SPARTACOTE Epoxy Pigment

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 SPARTACOTE Moisture Vapor Barrier 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 if stored at temperatures >32°F (0°C) and <110°F (43°C) and off the ground in a dry area.

Limitations

- Not for use as 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)
- LATICRETE is not responsible for moisture vapor emission from any movement joints, existing cracks, new cracks that may develop or voids in the SPARTACOTE Moisture Vapor Barrier 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.

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 extend 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

Physical Properties

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

Working Properties

| Property | Value |
|----------------------|----------------------------------|
| Mix Ratio | 1 Part A : 2 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 SPARTACOTE Moisture Vapor Barrier 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.

Testing Concrete Slabs for Contaminants

Concrete slabs should be tested for contaminants using Ion Chromatography and IR Spectroscopy prior to installation. Consult with an independent lab that specializes in this type of testing.

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.

Joints, Cracks, Surface Depressions and Other Irregularities

All joints and cracks should be evaluated and repaired if necessary prior to installation of SPARTACOTE Moisture Vapor Barrier. 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 one valuation and repair of cracks in concrete. 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 SPARTACOTE Moisture Vapor Barrier. 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 SPARTACOTE Moisture Vapor Barrier epoxy 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 SPARTACOTE Moisture Vapor Barrier and 3 parts clean, dry play sand. In a suitable container, such as an empty SPARTACOTE Moisture Vapor Barrier pail, pour 1 part SPARTACOTE Moisture Vapor Barrier pre-blended to 3 parts clean, dry play sand, using a 300 rpm drill with jiffy paddle, mix together for 2-3 minutes until the SPARTACOTE Moisture Vapor Barrier and 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 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 SPARTACOTE Moisture Vapor Barrier 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. Prior to mixing Part A and Part B, individually mix Part B for 2 minutes. Mix Part A and Part B to a ratio of 1:2 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

Add SPARTACOTE Epoxy Pigment to SPARTACOTE Moisture Vapor Barrier 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.

Add 0.5 gal (1.9 L) SPARTACOTE Epoxy Pigment to a 3.5 Gal (14.3 L) unit of SPARTACOTE Moisture Vapor Barrier Pigment Base Short Filled Part B and mix as directed above.

Add 0.2 gal (0.8 L) SPARTACOTE Epoxy Pigment to a 1.4 Gal (5.3 L) unit of SPARTACOTE Moisture Vapor Barrier Pigment Base Short Filled Part B 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 SPARTACOTE Moisture Vapor Barrier. Broom out excess water. Concrete should readily absorb water. Do not apply SPARTACOTE Moisture Vapor Barrier 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.

Application

Pour ribbons of SPARTACOTE Moisture Vapor Barrier 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. 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 degrees from the squeegee direction to help ensure full coverage and uniform thickness.

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.

When using SPARTACOTE Moisture Vapor Barrier as a broadcast coat for SPARTACOTE CHIP or SPARTACOTE QUARTZ, apply MVB at 16 mil thick then broadcast chip or quartz into the coating immediately after back rolling. 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 SPARTACOTE Moisture Vapor Barrier 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 SPARTACOTE Moisture Vapor Barrier. Always test performance and compatibility of floor systems prior to application.

Finish Flooring and Self Leveling Underlayments Installation

Floor goods, including resinous coatings, and self-leveling underlayments can be installed over SPARTACOTE Moisture Vapor Barrier 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

SPARTACOTE Moisture Vapor Barrier is 3 days provided that the surface is protected from traffic, dust, debris, water and any other contaminants. If SPARTACOTE Moisture Vapor Barrier is left open and unprotected longer than 3 days 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 entire surface and tested for intended use.

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.

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

LATICRETE International, Inc.

One LATICRETE Park North, Bethany, CT 06524-3423 USA • 1.800.243.4788 • +1.203.393.0010 • www.laticrete.com

© 2020 LATICRETE International, Inc. All trademarks shown are the intellectual properties of their respective owners.