



D-250™

Moisture Vapor Barrier Coating

**Two-Component,
Water-Based Epoxy**

**Bostik's Blockade®
Antimicrobial Protection**

**Reduces Moisture Vapor
Transmission from
Substrates**

Description

Bostik® D-250™ is a high performance, rapid drying, water-based, penetrating epoxy formulated to dramatically reduce moisture vapor transmission and surface alkalinity from substrates including; "freshly-poured/green concrete," properly prepared concrete, cement backer board, radiant heat flooring, and cement based terrazzo prior to the installation of carpet; vinyl/VCT; rubber; engineered or solid hardwood; porcelain, marble, granite or ceramic tile floor covering. D-250 is a low odor, non-flammable, two-component system.

D-250 contains Bostik's Blockade® antimicrobial protection which inhibits the growth of mold and mildew on the surface of the membrane. D-250 is uniquely formulated so that it may be applied to fresh "green" concrete as soon as it has achieved "initial set" (when the concrete can be walked on without disturbing the surface). It is pigmented green for visual indication of coverage and film thickness during the application process. It is extremely durable and wear resistant.

When properly installed, D-250 is designed to reduce the moisture vapor emission rate of concrete slabs to ≤ 3 lbs. per 1,000 ft² per 24 hours. This non-blushing formulation requires no solvent wiping, and has no application window in which floor covering adhesives must be applied to achieve a strong bond. D-250 is formulated to

be effective in reducing the surface alkalinity of concrete slabs with pH levels as high as 14 down to pH levels of 9 or lower as recommended by the Carpet and Rug Institute and the Canadian Carpet Institute, making them ideal for bonding with most adhesives.

Please refer to and follow industry standards for flooring material being installed (ie.: NWFA, NOFMA, MMFA, TCNA, NTCA, CRI, etc.) prior to using this material. Various flooring materials have vastly different substrate preparation and installation requirements; substrate preparation and installation requirements are key to a successful installation regardless of flooring material being installed.



**BLOCKADE®
Antimicrobial
Protection**

Bostik
Green Products
Initiative

Directions for Use

Read and understand data sheet and Material Safety Data Sheet completely before beginning installation. Follow industry standards and flooring manufacturer's recommendations for design, layout and application of flooring materials; including test methods, jobsite temperature and relative humidity. Always do a test area to ensure product satisfaction, including adhesion to substrate, and/or to become familiar with proper application techniques prior to use.

Moisture Vapor Emission Testing: Prior to the application of D-250, a Moisture Vapor Emission Rate, using "Anhydrous Calcium Chloride" testing per ASTM F 1869-05, must be obtained to determine the Moisture Vapor Emission Rate.

For Applications Over "Freshly-Poured/Green Concrete": D-250 is uniquely formulated so that it may be applied as soon as the fresh concrete can be walked on without disturbing the surface ("initial set"). Since a calcium chloride test cannot be done prior to application, the "Anhydrous Calcium Chloride" test, per ASTM F 1869-05, should be done prior to application of flooring material to confirm the moisture vapor emission rate is within flooring manufacturer's acceptable rate. This can be done approximately 16 hours after application of D-250 at 70°F. Dry time will vary depending on the temperature of the concrete slab.

Surface Preparation

Surfaces must be absorptive, clean, free from loose materials, oil, grease, sealers, curing compounds, waxes, silicates, laitance, and all other surface contaminants that may inhibit proper bond. Completely remove cutback adhesive residue or other surface contaminants by diamond grinding to open the pores of concrete. All surfaces to be treated must have a concrete surface profile of CSP 2-3 (similar to light broom finish), as defined by ICRI (International Concrete Repair Institute, Guideline No. 03732).

Surface areas requiring patching or leveling must be treated using Bostik® Webcrete®

95, Bostik® Webcrete® 98 or Bostik® SL-150 Self-Leveling Underlayment with Bostik® Universal Primer® **ON TOP OF** the properly cured D-250 Moisture Vapor Barrier Coating according label instructions.

Mixing

Using a slow speed drill (< 150 RPM), fitted with a blade that is at least 3" in diameter, separately pre-mix Part A (RESIN) and then separately pre mix Part B (HARDENER). Because some of the ingredients may settle to the bottom of each container, it is very important to scrape all of the material off of the sides and bottom of each pail to ensure that a proper mix is obtained. After each container has been thoroughly scraped and mixed, slowly add Part A into Part B while mixing, mix for one minute until a homogenous mix (uniform color/no streaks) is obtained. Do not over mix, as the pot life will be reduced. Mix full units only; do not mix partial components, or alter components in any way. Material components should be a minimum of 60°F (15°C) at time of mixing.

Installation

Make sure the concrete substrate and ambient room temperature is between 40°F and 90°F (4°C to 32°C) during and for a minimum of 24 hours after application. To achieve proper coverage, protection, and application of material, layout jobsite into 150 ft. "grids". Ensure the material is applied at the required coverage rate by staying within the grid per unit/container. Use a short 3/8" nap roller or squeegee followed by back rolling to coat the substrate with D-250. Let the coating cure a minimum of 6 hours (until it is tack free to the touch), this may vary due to temperature and humidity. A nylon bristle deck brush can be used to work the coating into any pin holes or surface imperfections that may not be properly filled using the nap roller. For required application rates, please refer to the COVERAGE section.

The surface of D-250 should be tack-free prior to application of a second coat of D-250 (if required), floor covering adhesives, primers or patch/underlayments. Cementitious patch/underlayment products, such as Bostik

Webcrete® 95, Bostik® Webcrete® 98 or Bostik® SL-150 Self Leveling Underlayment with Bostik® Universal Primer®, must be installed **ON TOP OF** properly cured D-250 according to label instructions. Always coat the dry surface of D-250 with Bostik Universal Primer prior to the installation of Bostik® SL-150 Self Leveling Underlayment.

For Crack/Joint Treatment

For "Non-Dynamic" Cracks/Joints (Cracks With No Movement): Remove any existing sealant or debris. Treat all non-dynamic joints with D-250 by applying a layer into the joint with a paint brush to completely coat the walls of the cavity. Once dry, fill the crack/joint with an approved cement-based patch material (ie: Bostik Webcrete 95 or Webcrete 98).

For "Dynamic" Joints/Cracks (Joints With Movement)

For "Dynamic" Joints/Cracks (Joints With Movement): Remove any existing sealant or debris. Treat all dynamic joints (i.e. expansion, isolation, control) with D-250 by applying a layer into the joint with a paint brush to completely coat the walls of the cavity. Once dry, fill the joint with sand or backer rod while leaving the top 1/8" to 1/4" of joint for proper treatment with Bostik Chem-Calk® 900 Urethane sealant.

CAUTION: There is a major difference between the proper application of flooring over non-dynamic vs. dynamic joints, as well as, variations based upon the type of flooring being installed. Please follow appropriate industry standards, as well as flooring manufacturer's recommendation for treatment of joints.

Clean-up

Immediately clean all tools and equipment with soap and water. Once cured this material can only be mechanically removed; which may damage some surfaces.

Curing

Light foot traffic and installation of flooring material may typically begin after 6 hours of cure time (once the surface is tack free to the touch.) **DO NOT INSTALL OVER D-250, IF IT IS STILL TACKY.**

Coverage

For applications over “freshly-poured/green concrete” or installations with substrate moisture vapor emission rate of ≤ 14 lbs. per 1,000 ft² per 24 hours: Required coverage is 150 ft² per gallon which yields a dry film thickness of ~6.4 mils.

For applications with substrate moisture vapor emission rate of > 14 lbs. to ≤ 25 lbs. per 1,000 ft² per 24 hours: Two coats of D-250 are required; required coverage for each coat is 150 ft² per gallon. The second coat must be applied over a fully cured/dried initial coat (typically 6 hours after application of the coating) which will yield a dry film thickness of 12.8 mils.

Coverage rates are approximate and actual coverage will vary based upon porosity and roughness of substrate, application technique, waste and/or other jobsite conditions.

Limitations

- For applications involving a wet set adhesive installation of resilient floor covering, or ‘non-breathable floor coverings’ with a water-based adhesive, a cementitious layer, such as Webcrete 95, Webcrete 98 or Bostik® SL-150 Self-Leveling Underlayment, must be installed at a minimum of 1/8” layer on top of the D-250 coating according to label instructions. Failure to apply this layer will result in the adhesive not drying and remaining wet/uncured.

- If using pressure sensitive adhesives, a cementitious layer is NOT required to be placed over the D-250 coating, ONLY IF the products are used properly (according to label instructions) and allowed adequate time to ‘flash off’ prior to the installation of the floor covering. Failure to allow these adhesives to reach their intended high-tack state will result in the adhesives not drying and remaining wet/uncured.
- Always do a test area to ensure product satisfaction, including adhesion to substrate, and/or to become familiar with proper application techniques prior to use.
- PLEASE NOTE: Not all floor covering adhesives/installation systems are compatible, or designed for use over epoxy coatings. Use ONLY adhesives/installation systems specifically approved in writing for use over this coating. Please contact Bostik Technical Service for questions related to the application of adhesive systems.
- Do not use over concrete slabs treated with sealers or curing compounds.
- Due to limitations with gypsum-based materials in wet/moist environments, gypsum-based patches/underlayments should not be used in conjunction with this system.
- Thoroughly clean surface to remove any substance that could interfere with the bond including; dirt, paint, oil, grease, laitance, efflorescence and other surface contaminants that may inhibit proper bond.

- Completely remove cutback adhesive residue, curing compounds, and sealers by sandblasting, shot blasting, or scarifying.
- Do not use in areas subject to hydrostatic head.
- Use indoors only.
- This is not a waterproofing or anti-fracture membrane.
- Do not use acid etching to prepare substrate surface.
- Do not thin/dilute product with water or solvent.
- D-250 is NOT designed to be used as a penetrant to treat concrete slabs that contain ASR (Alkali Silica Reaction). If this condition is suspected to be present, do not use this product.

Packaging

Each kit contains 24 fl. oz. of Part A Resin and 104 fl. oz. of Part B Hardener.

Storage/Shelf Life

Shelf life is two years from date of manufacturing in unopened original packaging. Store at temperatures between 60°F to 90°F. DO NOT ALLOW MATERIAL TO FREEZE.

Typical Physical Properties

Application Temperature	40°F to 90°F
Flash Point	>200°F
Viscosity	
Part A	10,000 cps
Part B	1,800 cps
Mixed	4,100 cps
Maximum Allowable Moisture Vapor Emission Rate	1 coat ≤14 lbs./1,000 ft ² /24 hrs. (ASTM 1869) 2 coats >14 lbs to ≤25 lbs./1,000 ft ² /24 hrs. (ASTM 1869)
Maximum Recommended Relative Humidity (%)	1 coat ≤ 92% RH (ASTM D2170) 2 coats ≥ 92% RH (ASTM D2170)
Odor	Mild
Color	
Part A	White
Part B	Green
Mixed	Green
Weight	11.65 lbs./gallon
Pot Life @72°F	60 minutes
Cure Time*	6 hours
VOC Content	67 g/L
* Cure time may vary due to temperature and humidity.	

WARNING: Can cause severe skin, eye and respiratory tract irritation. May cause allergic skin reaction. Suspect cancer hazard —contains material which may cause cancer. Powder aggregate contains silica which can cause silicosis (chronic lung disease) and cancer. Risk of cancer depends on duration and level of exposure.

PRECAUTIONS: Avoid breathing silica dust. Avoid prolonged exposure to epoxy vapors. Avoid contact with skin, eyes and clothing. Do not take internally. Keep containers closed. Use only with adequate ventilation. Wear protective clothing during handling. Wash thoroughly after handling and before eating. Do not reuse containers.

FIRST AID: In case of contact, wash skin with soap and water. Flush eyes with clear water for 10 minutes and CALL A PHYSICIAN. If inhaled, remove to fresh air. If ingested, get medical attention.

SEE MATERIAL SAFETY DATA SHEET.
KEEP OUT OF THE REACH OF CHILDREN.

Limited Warranty

The Limited Warranty for this product can be found at www.Bostik-US.com/resource-center/warranties or by calling 1-800-726-7845 (choose option 2, then option 2 again). TO THE MAXIMUM EXTENT ALLOWED BY LAW, BOSTIK DISCLAIMS ALL OTHER EXPRESS OR IMPLIED

WARRANTIES, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. UNLESS OTHERWISE STATED IN THE LIMITED WARRANTY, THE SOLE REMEDY FOR BREACH OF WARRANTY IS REPLACEMENT OF THE PRODUCT OR REFUND OF THE BUYER'S PURCHASE PRICE. BOSTIK DISCLAIMS ANY LIABILITY FOR DIRECT, INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES TO THE MAXIMUM EXTENT ALLOWED BY LAW. DISCLAIMERS OF IMPLIED WARRANTIES MAY NOT BE APPLICABLE TO CERTAIN CLASSES OF BUYERS AND SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU. It is the buyer's obligation to test the suitability of the product for an intended use prior to using it. The Limited Warranty extends only to the original purchaser and is not transferable or assignable. Any claim for a defective product must be filed within 30 days of discovery of a problem, and must be submitted with written proof of purchase.

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