



Product Information

BDC Vapor Seal

Moisture Blocking Epoxy Primer

Description

BDC Vapor Seal is a two component, 100% solids, low viscosity, moisture accepting epoxy primer. It has an ability to reduce the hydrostatic pressure emitted by the floor from 12 lbs per 1000 square feet to less than 1 lb. BDC Vapor seal can even cure underwater without affecting its adhesion. When applied at 73°F / 50% humidity, BDC Vapor Seal is a 5-7 hour cure.

Uses

BDC Vapor Seal can be used to prime concrete, metal, and wood. Corrosion inhibitors can be added (by special request) for use over metal substrates. It is an excellent all around concrete primer/sealer with incredible adhesion.

Advantages

- Meets USDA criteria
- 100% Solids
- Low Viscosity
- SCAQMD VOC Compliant (VOC = 0g/l)
- High Build
- Moisture Tolerant
- Convenient 2:1 Mix; A:B=2:1
- Superior Adhesion

Coverage

The proper coverage of BDC Vapor Seal varies on the level of moisture vapor emissions discovered on the job. Typical application should cover 200 ft²/gal (8 mils). If an excessive amount of Vapor Pressure is present (> 8 lbs/1000 ft²/24hr), BDC Vapor Seal should be applied in multiple coats to achieve a minimum of 16 mils (2 coats at 200 ft²/gal). With the right surface preparation, this extra protection should provide protection up to 15lbs.

BDC Vapor Seal may be applied at a heavier rate to achieve a higher build system or to accommodate the broadcasting of aggregates.

Colors

Clear

Packaging

- 1 1/2 gallon kits
(1 gallon part A to 1/2 gallon part B)
- 15 gallon kits
(10 gallons part A to 5 gallons part B)

Inspection

Surface Preparation - Concrete

Inspection

Concrete must be clean, dry, and free of grease, paint, oil,

dust, curing agents, or any foreign material that will prevent proper adhesion. The concrete should be porous and be able to absorb water. A minimum of 14 days cured is required on all concrete. Relative humidity in the concrete floor slab should be below 80% (per ASTM F-2170).

Before starting flooring work, test existing concrete slab to make sure there is no efflorescence or high levels of alkalinity. Alkalinity refers to a high pH reading which means the floor is not neutral. A high alkaline environment can cause salts to creep up through the cement called efflorescence. These salts have a tendency to prevent or destroy the bonding of coatings to the concrete. The most common form of testing is the use of a wide-range pH paper or tape. Make sure the floors pH reading ranges between 5-9 to ensure adhesion. The testing of concrete for alkalinity can show the amount of alkalinity only at the time the test is ran, and cannot be used to predict long-term conditions.

Calcium chloride tests should be conducted to determine if the concrete is sufficiently dry for an epoxy flooring installation. The calcium chloride tests should be conducted in accordance with the latest edition of ASTM F 1869, *Standard Test Method for Measuring Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride*. When running a calcium chloride test, it is important to remove any grease, oil, curing agents, etc. so accurate readings can be obtained.

Failing to adhere to these strict guidelines can result in product delamination, discoloration, blistering, or all together failure of the coating system. Testing is the responsibility of the applicator. B.D. Classic bears no responsibility for failures due to any of the above conditions.

Concrete surfaces shall be bead blasted or diamond grinded to remove all surface contaminants and laitance. The concrete should be at least 2500 psi and have an ICRI concrete surface profile within 3-5. After initial preparation has occurred, inspect the concrete for imperfections and treat as necessary. Allow concrete to breathe for a minimum of 24 hours after preparation. Any voids need to be filled using BDC 7200G Crack Patch Gel. Any high spots need to be ground smooth. For surface preparation recommendations consult the Technical Service Department.

All expansion joints should be honored. Cracks should be chased with a diamond crack chaser (approximately 1/4" x 1/4"), swept or blown clean.

Mixing

Mix 2 parts A with 1 part B (by volume) of BDC Vapor Seal together for 3 to 4 minutes with a slow speed drill mixer.

BDC Vapor Seal may be thinned with up to 16oz of Acetone to aid in penetration. Thinned material should be applied at less than 6 mils (and not puddle) to cure properly. The BDC Vapor Seal will have approximately 30 minutes of working



time.

Application

As a primer: Immediately after mixing, spread a strip of the batch onto the surface along the edges where it will be cut in using a brush. Pour the remaining material near the cut in area and spread evenly using a trowel or squeegee and back roll using a 3/8" nap non-shedding roller.

BDC Vapor Seal can be applied as an intermediate coat for extra protection from moisture vapor emissions: Mix and apply without solvent at the desired thickness using a notched trowel or squeegee and backroll using a 3/8" nap non-shedding roller.

Drying Time

You may re-coat as soon as the surface is completely dry to touch or in about 8 hours (but not later than 24 hours). If recoat time has been exceeded, lightly sand the surface and wipe clean with acetone before next application. Light foot traffic may be permitted in 24 hours, light vehicle traffic in 72 hours, and heavy traffic in 7 days. All times are based on average temperature of 70 degrees and 50% humidity. Cooler temperatures will increase drying time.

Limitations

- Do not apply at any temperature below 50° F or above 95°F.
- Do not let mixed product sit in bucket for prolonged period of time or it will become very hot and unusable
- Concrete must be cured for a minimum of 14 days and have vapor emissions less than 15 lbs/1000 ft²/24hr.
- For interior use only unless protected by a pigmented U.V. resistant coating *such as a BDC 9510P*.

- Epoxy must be cured for a minimum of 24 hours before coming in contact with water.
- Concrete should be a minimum of 2500 psi.
- Shelf Life of this material is 1 year from the date of manufacture. (See batch number for manufactured date)
- B.D. Classic recommends the use of angular slip resistant aggregate in all coatings or flooring systems that may be exposed to wet, oily or greasy conditions. It is the contractor and end users' responsibility to provide a flooring system that meets current safety standards.

Clean Up

Uncured material can be removed with a solvent. Cured material can only be removed mechanically. All empty containers must be disposed of according to local, state, and federal regulations.

Warranty

B.D. Classic Enterprises guarantees that this product is free from manufacturing defects and complies with our published specifications. In the event that the buyer proves that the goods received do not conform to these specifications or were defectively manufactured, the buyer's remedies shall be limited to either the return of the goods and repayment of the purchase price or replacement of the defective material at the option of the seller. B.D. Classic makes no other warranty, expressed or implied, and all warranties of merchantability and fitness for a particular purpose are hereby disclaimed. Manufacturer or seller shall not be liable for prospective profits or consequential damages resulting from the use of this product. Manufacturer shall not be liable for material used outside of its shelf life. For product dating, please refer to the batch number on the product or contact B.D. Classic.

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| Hardener | BDC Vapor Seal | | | |
| Mix Ratio, By Volume | 2 parts resin / 1 part hardener | | | |
| Volatile Organic Compounds (VOC) | 0 g/l | | | |
| Test Temperature / Relative Humidity | 41°F / 80% | 59°F / 60% | 73°F / 50% | 95°F / 35% |
| Mixed Viscosity, cP | <4000 | 2,400 | 1,150 | 500 |
| Gel Time (100g mass), minutes | 391 | 154 | 47 | 34 |
| Tack-free Time, hours | 14 | 6.5 | 4 | 1 |
| Dry Through Time, hours | 21 | 8.5 | 6 | 2 |
| Visual Appearance | Semi-gloss | Semi-gloss | Glossy | Glossy |
| Mechanical Properties | | | | |
| Pencil Hardness | 2H | | | |
| Persoz Hardness, seconds | 167 | | | |
| Cross-cut Adhesion | 5A | | | |
| Impact Resistance (D/R), in lb. | 42 / 0 | | | |
| Elcometer Pull-off Adhesion 73° F / 50% | 800 psi (dry concrete) | | | |

