



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
- 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 at 100 ft²/gal (16 mils). 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 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 with acetone before next application. Light foot traffic may be permitted in 24 hours, light vehicle traffic in 72 hours, 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.
- Concrete must be cured for a minimum of 10 days and have less than 15 lbs of moisture per thousand square feet.
- For interior use only unless protected by a U.V. resistant coating *such as urethane*.
- Epoxy must be cured for a minimum of 24 hours before coming in contact with water.
- Concrete should be a minimum of 2500 psi.

Hardener	BDC Vapor Seal			
Mix Ratio, By Volume	2 parts resin / 1 part hardener			
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)			