Product Information

BDC 3418 Metallic Coat ***High-Flow, Self-Leveling Epoxy Floor Coating***

Description

BDC 3418 is a two component, 100% solids, low viscosity, self-leveling epoxy floor coating. It flows out and releases bubbles on its own and cures to a tough, high-gloss finish. It can be applied at a wide range of thicknesses and is designed for metallic and decorative epoxy floors and high-build clear coats.

Uses

- **Metallic epoxy floors**
- **Decorative and artistic coating systems**
- **High-build clear epoxy coatings**
- **Showrooms, retail, residential, and commercial interiors**

Advantages

- **100% Solids, SCAQMD VOC Compliant (VOC < 5 g/l)**
- **Convenient 2:1 Mix Ratio (A:B = 2:1 by volume)**
- **Self-leveling, low viscosity**
- **Excellent bubble release**
- **Excellent chemical resistance**
- **Suitable for use in USDA and FDA inspected facilities**

Coverage

Overall coverage range is 40-100 ft² per gallon (approximately 16-40 mils), depending on use.

Metallic floors: typically 60-120 ft² per 1½-gallon kit (40-80 ft² per gallon, approximately 20-40 mils). A 3-gallon kit covers approximately 120-240 ft², and a 15-gallon kit covers approximately 600-1,200 ft².

High-build clear coat: 50-100 ft² per gallon (approximately 16-32 mils) while maintaining excellent bubble release. Clear coats applied heavier than 50 ft² per gallon may appear milky.

Colors

Clear. BDC Metallic Pigments are available separately.

Packaging

1½-gallon kits (1 gallon part A to ½ gallon part B)
3-gallon kits (2 gallons part A to 1 gallon part B)
15-gallon kits (10 gallons part A to 5 gallons part B)

Inspection

Concrete must be clean, dry, sound, and free of grease, paint, oil, dust, curing agents, or any foreign material that will prevent proper adhesion. The concrete should be at least 2500 psi, porous, and able to absorb water. A minimum of 28 days cured is required on all concrete. Relative humidity in the concrete slab should be below 80% (per ASTM F2170).

Before starting flooring work, test the 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 floor's 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 run, and cannot be used to predict long-term conditions.

Moisture testing must be conducted before installation. Calcium chloride tests should be conducted in accordance with the latest edition of ASTM F1869, Standard Test Method for Measuring Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride. When running a calcium chloride test, remove any grease, oil, curing agents, etc. so accurate readings can be obtained. The moisture vapor emission rate must not exceed 4.5 lbs/1000 ft²/24 hr. For readings between 4.5 and 15 lbs/1000 ft²/24 hr, first install BDC Vapor Seal following its data sheet.

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

Surface Preparation

Over Concrete: Shotblasting or diamond grinding is required to achieve a clean, porous, uniform surface with a texture similar to 30-grit sandpaper so the primer can penetrate and properly bond.

Over Epoxy: BDC 3418 can be applied directly over a BDC epoxy primer or base coat within 24 hours of its application; confirm the recoat window on that product's data sheet. If the existing epoxy has cured longer than 24 hours, sand with a floor buffer and 100-grit sandpaper, remove all dust, and wipe with acetone just before application. Always test a small area to confirm adhesion.

Primer

Prime the concrete with BDC Vapor Seal or BDC 1704 100% solids epoxy primer before applying BDC 3418. For metallic floors, use a pigmented primer in a color similar to the metallic finish to provide a uniform background color.

Metallic Pigments

Premix BDC Metallic Pigment (sold separately) into part A before combining with part B. For best results, premix the pigment into part A the night before to soften any lumps. Strain the pigmented part A through a paint strainer before mixing with part B.

Typically, one jar of BDC Metallic Pigment is used per 3-gallon kit of BDC 3418.

Mixing

Mix 2 parts A with 1 part B (by volume) in a clean mixing container. Mix with a slow speed drill and mixing paddle for 3 to 4 minutes, carefully scraping the sides and bottom of the pail. Do not prepare mixtures of more than 3 gallons at one time. Do not thin.

Immediately after mixing, pour the material onto the floor. Mixed material left in the bucket will quickly heat up and cure, severely shortening or eliminating working time.

Application

Pour the mixed material onto the floor and spread to the desired thickness with a trowel or squeegee.

As a clear coat: Back roll with a ⅜" nap non-shedding roller to help the material level evenly.

Metallic finishes: A wide range of effects can be achieved using techniques such as weenie rollers, looped roller covers, multiple colors, and sprayed alcohol. Always test techniques on sample boards before applying on the job.

Bubble Release: BDC 3418 is formulated to release bubbles and flow together on its own. Torching or spraying is not required, but a light mist of 91% isopropyl alcohol from a quality spray bottle or pump sprayer can help break surface tension for a flawless finish.

Working Time

Pot life is approximately 30 minutes (8 oz. (250g) mass at 77°F). Once spread on the floor, BDC 3418 remains workable for design and manipulation for approximately 30 minutes at 77°F. Higher temperatures and larger batches will shorten working time.

Drying Time

BDC 3418 is dry to touch in 8-12 hours. Recoat once dry to touch and within 24 hours. If 24 hours has been exceeded, sand with 100-grit sandpaper and wipe clean with acetone before recoating.

Light foot traffic may be permitted after 24 hours. Vehicular and other heavy traffic may be permitted after 72 hours.

All times are based on 77°F and 50% humidity. Cooler temperatures and thinner applications will increase drying time. Warmer temperatures and heavier applications will decrease drying time.

Limitations

- **For professional use only.**
- **Do not apply at temperatures below 55°F or above 90°F.**
- **Substrate temperature must be at least 5°F above the dew point during application and cure to avoid an amine blush.**
- **Do not prepare mixtures of more than 3 gallons at one time. Do not let mixed product sit in the bucket or it will become very hot and unusable.**
- **Do not apply over concrete with Moisture Vapor Emissions above 4.5 lbs/1000 ft²/24 hr (ASTM F1869) unless BDC Vapor Seal is installed first.**
- **Concrete must be cured for a minimum of 28 days and be a minimum of 2500 psi.**
- **For interior use only. Epoxy will yellow (amber) with exposure to UV light, including sunlight through windows and doors.**
- **Shelf Life of this material is 1 year from the date of manufacture. (See batch number for manufactured date.)**
- **BDC 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 suitable solvent. Cured material can only be removed mechanically. All empty containers must be disposed of according to local, state, and federal regulations. Read the Safety Data Sheet (SDS) before use.

Warranty

LIMITED MATERIAL WARRANTY. BDC Epoxy Systems, Inc. ("BDC") warrants only that this product, when shipped, is free from manufacturing defects and conforms to BDC's published specifications. This warranty is valid for one (1) year from the date of manufacture, matching the product's shelf life. BDC does not warrant any installation or the performance of the installed system, because BDC has no control over substrate quality, concrete strength, moisture conditions, surface preparation, or application. Substrate testing and determining the suitability of the product for the intended use are the sole responsibility of the buyer and applicator. If the buyer proves a manufacturing defect, BDC's sole liability and the buyer's exclusive remedy is, at BDC's option, replacement of the defective material or refund of its purchase price. BDC is not liable for labor, removal, reinstallation, lost profits, or any incidental or consequential damages. Claims must be made in writing and include the product batch number. Material used past its shelf life is not covered. For product dating, refer to the batch number on the product or contact BDC.

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Technical Data for BDC 3418 Metallic Coat

Mix Ratio (by volume)	**2 parts A : 1 part B**
Solids	**100%**
VOC	**< 5 g/l**
Coverage	**40-100 ft²/gal (approx. 16-40 mils)**
Coverage, Metallic Floors	**60-120 ft² per 1½-gallon kit**
Coverage, High-Build Clear Coat	**50-100 ft²/gal (approx. 16-32 mils)**
Pot Life	**30 minutes (8 oz. (250g) at 77°F)**
Working Time on Floor	**Approx. 30 minutes @77°F**
Dry to Touch	**8-12 hrs @77°F, 50% RH**
Recoat Window	**Within 24 hrs @77°F**
Light Foot Traffic	**24 hrs @77°F**
Vehicular / Heavy Traffic	**72 hrs @77°F**
Application Temperature	**55-90°F**
Shelf Life	**12 months**