Product Information

BDC 1065 ***Flexible Floor Coating & Crack Bridging Epoxy***

Description

BDC 1065 is a 100% solids, flexible, waterproof, and chip resistant epoxy coating. Its elongation makes it the perfect coating for industrial joint and crack isolation repair. It is excellent for crack bridging applications requiring a flexible membrane to protect from surface movement. The flexibility of this product is an inherent property and will be retained for the life of the coating in both warm and cold weather.

BDC 1065 can be used to coat concrete, metal and wood as well as many other existing coatings. It is well suited for surface movement, thermal cycling, and vibrations that may defeat the protection of a more rigid coating. Its "rubberized" finish provides it the ability to absorb the impact from heavy loads and steel-wheeled traffic. The high build flexibility allows this product to be used as a waterproofing membrane and perfect for clean rooms and containment.

BDC 1065 works well as a joint and crack filler. BDC 1070 Flex Fill is also available for joint filling: it is a thicker, higher-viscosity (3,000 cps) version of this flexible system, and its higher initial viscosity makes it easier to work with when filling control joints, saw cuts, and cracks, and adds strength and durability to the finished joint. BDC 1070 accepts silica sand for wider joints and larger repair areas, and is packaged in oversized pails that leave room for mixing and adding aggregate.

Uses

- **Non-porous, crack bridging systems**
- **Beneath floors for industrial use and heavy impact, secondary containment areas**
- **Flexible membrane for civil engineering applications**
- **Loading docks, machine shops, clean rooms, containment areas, mechanical rooms, food processing, animal housing**
- **Waterproofing for interior plywood decks**
- **Expansion joint and crack filling**

Advantages

- **Extreme flexibility, tough, abrasion resistant**
- **Waterproof, Fluid-Proof**
- **Meets USDA criteria**
- **100% Solids, Meets Green Building criteria**
- **High Build with High Tensile Strength**
- **Remains flexible at low temperatures**
- **Superior Adhesion**
- **Resistant to the impact of heavy loads and steel wheeled traffic**

Coverage

As a coating, BDC 1065 should cover between 80-160 sq ft per gallon under normal conditions.

As a joint filler, BDC 1065 can be filled up to ½" wide x 1" deep. Silica sand can be added to the mix to increase the depth of the pour. BDC 1070 Flex Fill, the higher-viscosity version of this product, can also be used; it is often easier to work with for joint filling and provides added strength and durability.

For lineal foot coverage per gallon, cross reference the depth with the width.

	Width			
DEPTH		¼"	3/8"	½"
	½"	154'	102'	77'
	1"	77'	51'	38'

For joints wider than ½" or deeper than 1", a filler such as silica sand or Cab-O-Sil (fumed silica) can be added to the mix.

Colors

Available clear and pigmented.

Packaging

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

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 at least 2500 psi and feel like 30-grit sandpaper. The concrete should be porous and be able to absorb water. A minimum of 28 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. A rate of 4.5lbs/1000 ft²/24hr period or less is an acceptable amount of vapor pressure for

an epoxy flooring installation.

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. BDC bears no responsibility for failures due to any of the above conditions.

Surface Preparation

Over Concrete Surfaces: Shotblasting or diamond grinding are the preferred methods for preparing the concrete. In some cases, you may prepare by acid etching, floor scrubbing with a nylogrit brush and waterblasting to achieve a clean and uniform surface that feels like 30-grit sandpaper. If acid etching is done, be sure to properly etch and then adequately neutralize by scrubbing with baking soda and rinsing with water several times followed by power washing. Prepare the surface so that the product will soak in and properly bond.

Over existing Epoxy: Sand the surface with a floor buffer and 60 grit sandpaper, remove debris and wipe with acetone just before new application.

Joints: Grind out the joint with a crack chaser or diamond blade to expose clean, sound concrete on both sides. For deep joints, install a backer rod or compacted dry silica sand to set the fill depth, leaving an epoxy depth of at least 1" or twice the joint width, whichever is greater.

Working Time

BDC 1065 = 30-35 minutes

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.

As an intermediate coat: Mix and apply without solvent at the desired thickness using a notched trowel or squeegee and backroll. The addition of silica flour or silica sand will add body and help to build up more cost effectively.

As a joint filler: After thoroughly mixing, pour the material directly into the clean joint, filling it approximately 2/3 of the way. Allow the joint filler to settle for 30 minutes and then complete filling until level with the floor. Come back within 24 hrs with a razor or grinder to level the surface if any overpouring/imperfections exist. BDC 1070 Flex Fill may also be used; its higher initial viscosity makes it easier to work with in joints and adds strength and durability, and it can be thickened with silica sand for larger repair areas.
See above chart for coverage.

Drying Time

BDC 1065 can be re-coated as soon as the surface is dry to touch, generally 10-12 hrs. Recoat within 24 hrs. If additional coats need to be put down after the initial 24 hr window, sand the surface and wipe it with a suitable solvent (i.e. acetone).

Light foot traffic may be permitted in 24 hours, vehicular traffic in 72 hours.

All times are based on average temperature of a 10 mil application with 77˚F and 50% humidity. Cooler temperatures and thinner applications will increase drying time. Warmer temperatures and heavy applications will decrease drying time.

Limitations

- **Do not apply at temperatures 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.**
- **Do not apply over concrete with Moisture Vapor Emissions above 4.5lbs/1000 ft²/24hr.**
- **For interior use only unless protected by a pigmented UV resistant coating.**
- **Concrete must be cured for a minimum of 28 days.**
- **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 solvent. Cured material can only be removed mechanically. All empty containers must be disposed of according to local, state, and federal regulations.

Warranty

BDC Epoxy Systems 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. BDC 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 shelf life. For product dating, please refer to the batch number on the product or contact BDC.

Technical Data for BDC 1065

Chemical Composition	**Urethane Modified Bisphenol A/F Resin w/ Modified Aliphatic Amines**
Viscosity	**1,500 cps**
Shore D Hardness (ASTM D2240)	**52**
Cross Hatch Adhesion (0-Worst, 5-Best) (ASTM D 3359)	**5**
Impact Resistance, inch-lbs Direct/Reverse (ASTM D 2794)	**>160 / >160**
Gel Time	**45 @77°F (150 mass/mins.)**
Compressive Strength	**N/A**
Tensile Strength	**1500 psi (@70°F)**
Tensile Elongation	**90-120% (@70°F)**
Dry to Touch	**10-12 hrs @77°F**
Flexural Strength	**N/A**
Pot life	**21 minutes (8oz. (250g) at 77°F)**
VOC	**< 5 g/l**