



Product Information

BDC Double Quartz Broadcast System

Description:

B.D. Classic's Double Quartz Broadcast System is a high build, seamless floor finish for use over existing concrete. The system is a 3-5 step process depending on desired effect and required protection. The steps consist of an optional Vapor Barrier primer; two heavy coats of 100% Solids Cycloaliphatic Epoxy with 3m Color Quartz broadcasted to refusal; one fill coat of Cycloaliphatic epoxy and an optional high-gloss, protective Chemical Resistant Topcoat. BDC Double Quartz Broadcast System can be designed to meet each projects specific need.

Advantages

- Strong and resilient flooring system
- Aggressive non-skid texture
- Seamless floor
- Available with an antimicrobial agent

Uses

- Heavy duty commercial environments
- Commercial kitchens, locker rooms
- Garage floor system
- Chemical storage, packaging and production facilities
- Health and animal care facilities
- Warehouses and automotive repair shops

System Specification

- 1 Coat - BDC Vapor Seal Epoxy Primer (Optional)
 - 2 Coats - BDC 3300/3100 Epoxy broadcasted into with S Grade 3M Color Quartz/Silica Sand
 - 1 Coat - BDC 3100/3300/9700 for fill coat(s)
 - 1 Coat - BDC 9510/9700 as the final topcoat. (Optional)
- (Please read individual product information sheets before deciding upon a system)*

Installation

The following information is to be used as a guideline for the installation of the BDC Double Quartz Broadcast System. Contact the Technical Service Department for assistance prior to application.

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 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 12lbs/1000 ft²/24hr period or less is an acceptable amount of vapor pressure for use of the BDC Vapor Seal Primer Coat.

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. After initial preparation has occurred, inspect the concrete for imperfections and treat as necessary. 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.

Temperature

Do not apply at temperatures below 50°F or above 95°F. Substrate temperature must be at least 5°F above the dew point. Applications on concrete substrates should occur during the cooler season to decrease the chances of outgassing. The material should not be applied in direct sunlight, if possible.

Primer

Use: BDC Vapor Seal Primer (OPTIONAL)

Mixing and Application

Use BDC Vapor Seal Primer over concrete with Moisture Vapor Emissions ranging between 4lbs and 12lbs/1000 ft²/24hr period. Premix each component separately. Mix 2 parts A Resin with 1 part B Hardener, by volume, into a clean container. Mix thoroughly with a low speed (400-600 rpm) drill motor/jiffy mixer for 3-4 minutes. Make sure to scrape the sides and bottom of the container during mixing.

BDC Vapor Seal should be applied using a 3/8" non-shedding nap roller, brush, or squeegee. Apply at approximately 200-250 sq. ft. per gallon (6-8) mils, evenly, with no puddles. Coverage will vary depending upon porosity of the substrate and surface texture. Let BDC Vapor Seal dry to touch before applying next step of system.

First Broadcast

Use: 3300 Clear Epoxy with Broadcasted Color Quartz/Silica

Mixing and Application

Premix each component separately. Mix 2 parts A Resin with 1 part B Hardener, by volume, into a clean container. Do not mix more than 1.5 gallons at a time. Mix thoroughly with a low speed (400-600 rpm) drill motor/jiffy mixer for 3-4 minutes. Make sure

to scrape the sides and bottom of the container during mixing.

Apply with 1/8" notched trowel or squeegee. 1 gallon should cover approx. 100 sq. ft.

S Grade Color Quartz/Silica Sand should then be broadcast to refusal into the wet 3300 (at approx. 3/4 lbs/sq. ft). Allow to cure overnight. After cured, scrape, sweep, and save unused quartz for next coat.

Second Broadcast

Use: 3300 Clear Epoxy with Broadcasted Color Quartz/Silica

Mixing and Application

Premix each component separately. Mix 2 parts A Resin with 1 part B Hardener, by volume, into a clean container. Do not mix more than 1.5 gallons at a time. Mix thoroughly with a low speed (400-600 rpm) drill motor/jiffy mixer for 3-4 minutes. Make sure to scrape the sides and bottom of the container during mixing.

Apply with flat trowel or squeegee. 1 gallon should cover approx. 100 sq. ft.

S Grade Color Quartz/Silica Sand should then be broadcast to refusal into the wet 3300 (at approx. 3/4 lbs/sq. ft). Allow to cure overnight. After cured scrape, sweep and vacuum excess quartz.

Fill Coat

Use: 3300 Clear

Mixing and Application

Premix each component separately. Mix 2 parts A Resin with 1 part B Hardener, by volume, into a clean container. Mix thoroughly with a low speed (400-600 rpm) drill motor/jiffy mixer for 3-4 minutes. Make sure to scrape the sides and bottom of the container during mixing.

Apply 3300 using a steel trowel or red rubber squeegee and back roll using a 1/4" nap roller at a spread rate of 100 sq. ft. per gallon (16 mils).

Allow to cure overnight.

Sealing TopCoat (Optional)

Use: 9510 CRU Clear or Pigmented

Mixing and Application

Premix each component separately. Add 1/2 gallon part 9510 A (isocyanate) to 1/2 gallon part B (resin) by volume. Mix with low

speed drill and Jiffy mixer for three minutes and until uniform. Make sure to scrape the sides and bottom of the container during mixing.

Apply 9510 using a solvent proof 1/4" non-shedding nap roller at 300 square feet per gallon evenly with no puddles making sure of uniform coverage. Take care not to puddle materials and ensure even coverage. An even application is essential for gloss consistency. Use wet mil gauge to insure application is 4-5 mils WFT. Excess millage can result in product whitening and/or bubbling. (see individual product information sheet for more details on how to apply BDC 9510 CRU). Allow to cure 48 hours minimum before opening to traffic.

Application Equipment

Brush / Roller

Use 1/4" phenolic core rollers and professional quality, medium stiff natural bristle brushes.

Notched Trowel / Squeegee

Use 1/8" Notched Trowel or Squeegee. Also need flat squeegee.

Cleanup

Clean up mixing and application equipment immediately after use. Use acetone or xylene. Observe all fire and health precautions when handling or storing solvents.

Safety

MSDS (Material Safety Data Sheets) must be read and understood by personnel responsible for supervision and installation of the B.D. Classic Materials. All applicable federal, state, local, and particular plant safety guidelines must be followed during the handling and installation and cure of these materials. Safe and proper disposal of excess materials shall be done in accordance with applicable federal, state, and local codes.

Material Storage

Store materials in a temperature controlled environment (50°F to 90°F) and out of direct sunlight. Keep resins, hardeners, and solvents separated from each other and away from sources of ignition. One year shelf life is expected for products stored between 50°F to 90°F.

Maintenance

The Double Quartz Broadcast should be inspected every 2-3 years and resealed as necessary. Reseal system by lightly sanding surface and giving it a solvent bath of acetone or xylene. Reseal with BDC 9510 CRU thinned with 15% acetone.

Hardness @ 24 hours Shore D	70/65	ASTM D 2240
Compressive strength	12,000 psi	ASTM C 579
Tensile Strength	2,500 psi	ASTM C 307
	6,000 psi	ASTM D 638
Abrasion Resistance	90-100 milligrams lost	ASTM D 4060, CS-17 Wheel, 1000 Cycles
Flexural Strength	4,500 psi	ASTM C 580
	10,000 psi	ASTM D 790
Adhesion	350 psi	ACI 503R (100% concrete failure)
Flammability	Self-extinguishing over concrete	
Resistance Elevated Temperatures		No slip or flow at required temperature of 158°F

ASTM C = Mortar system

ASTM D = Resin only