



## PLATINUM coatings

Cycloaliphatic Pebble Bond

### Description

BDC 3300PB is a two component, cycloaliphatic, 100% solids, low viscosity, moisture tolerant, high strength epoxy formulated specifically for the bonding of decorative pebbles to structural substrates. BDC 3300PB is BD Classic's highest quality system available for stone and epoxy. When applied BDC 3300PB is an 8-10 hour cure (depending on temperature).

### Uses

The Pebble Bond 3300PB Epoxy System is used primarily with aggregate pebbles to produce a decorative covering for patios, driveways, pool decks, and walkways. The 3300PB can also be used as an epoxy primer to help further increase the product's bond to its substrate.

BDC 3300PB Epoxy can be used for filling cracks in existing concrete and bonding many types of materials to each other.

### Advantages

- Exceptional Tensile Strength
- Strong resistance to Ultra Violet rays
- High Abrasion Resistance
- Durable High Gloss Finish
  
- Great Chemical Resistance
- Convenient 2:1 Mix; A:B=2:1
- Superior Adhesion

### Coverage

BDC 3300PB covers approximately 50 sq ft per 1 ½ gallon kit when mixed with 200 lb of ¼" x 5/16" aggregate laid at ½" thick. Coverage will vary depending on condition of surface, size aggregate and desired thickness. Can be applied up to 1 ½" thick.

### Colors

Clear

### Packaging

1 ½ gallon kits - 1 g part A to ½ g part B  
15 gallon kits - 10 g part A to 5 g part B  
165 gallon kits - 110 g part A to 55 g part B

### Inspection

Surface must be structurally sound. Concrete must be clean, dry, and free of grease, paint, oil, 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. Before starting flooring work, test existing concrete slab for efflorescence, moisture vapor emissions, and alkalinity (see 1200 or 3300 spec for more details).

### Surface Preparation

Surface should be clean and dry. Remove dust, laitance, grease, rug glue, etc. Painted surfaces should be scored with grinding equipment. All loose paint must be removed. 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. Surface should be porous enough to absorb water.

### Mixing

As a primer: Mix 2 parts A with 1 part B (by volume) of BDC 3300PB together for 3 to 4 minutes. For best penetration into concrete, thin by adding up to 1 quart of acetone to each 1.5-gallon kit. Thinned material must be applied at less than 5 mils (and not puddle) to cure properly. The BDC 3300PB will have approximately 30 minutes of working time

With Stone: Stir each component before proportioning. Mix two parts A (resin) with 1 part B (hardener) (by volume) for 3 to 4 minutes with a slow speed (400-600 rpm) electric drill. Mix only the quantity that can be used in 20 minutes.

Combine the mixed BDC 3300PB Epoxy with clean kiln dry river pebbles and mix for approximately 3 to 4 minutes. Recommended ratios are 1 ½ gallon epoxy, 200 lbs of ¼" x 5/16" pebbles when laid down at ½" thick. Smaller stones will require more epoxy and larger will require less. An easy mix option for larger mixes can be done in a cement mixer.

### 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 1/4" nap roller. Thinned material must be applied at less than 5 mils (and not puddled) to cure properly. There is no need to wait for cure before applying coat of stone and epoxy.

**With Stone:** After epoxy is mixed with pebbles, pour them onto the substrate and rake them until their depth is approximately 1/2" deep (approx. 3-4 pebbles thick.) Use a standard concrete trowel (14" x 4") to smooth the pebbles into a comfortable walking surface. Continue troweling smooth and wiping trowel clean with solvent as needed.

**Drying Time**

**Primer:** The stone and epoxy can be applied immediately after primer is laid down. There is no need to wait for a complete cure.

**With Stone:** Allow 24 hours for light foot traffic and 72 hours for heavy or vehicular traffic.

All times are based on average temperature of 77 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 28 days and have less than 5 lbs of moisture per thousand square feet.
- Do not apply over concrete under hydrostatic pressure.
- Epoxy must be cured for a minimum of 24 hours before coming in contact with water.
- Concrete should be a minimum of 2500 psi.

**Technical Data for 3300PB Without Stone**

Viscosity (ASTM-D-445-83, Brookfield, RVTD, Sprindl 4)	1030 cps
Gel time (Techne GT-4 Gelation Timer)	65 (150 mass/min)
Tensile Strength (ASTM-D-638-86)	7,250 psi
Tensile Modulus	385,000 psi
Tensile Elongation (ASTM-D-638-86)	5.5 %
Heat Deflection at 264 psi (ASTM-D-648) *	47 C
Shore D Hardness (ASTM-D-2240-86) *	81
Abrasion Resistance @ 1000 cycles Wt. Loss (gms)	0.0041
Mar Resistance (ASTM-D-5178-91)	1.30 kg
Pencil Hardness	2H
Impact, inches-lbs Direct/Reverse	14/1
Glass Transition Temperature (ASTM-D-3418-82)	124 F
Color (ASTM-D-1544-80)	>1 Gardner
Thin Film Set Times at 70 F (BK Drying Recorder)	8 hrs.
Flexural Strength (ASTM-D-790-88)	12,185psi
Flexural Modulus	445,000 psi
Cross Hatch Adhesion (0-Worst, 5-Best)	4
Compressive Strength @ yield (ASTM 695-85)	11,550psi
Compressive Modulus (ASTM 695-85)	370,000 psi
Glass Transition	46C
Chemical Composition	Modified Bisphenol A epoxy resin crosslinked with aliphatic and cycloaliphatic polyamines
VOC	0 g/l

\*Properties determined after 7 days cure at 25 C°

REAGENT	Initial Hard.		After 3 hrs		After 24 hrs		After 3 days		After 7 days		After 28 days		After 90 days	
	% wt.	Hard	% wt.	Hard	% wt.	Hard	% wt.	Hard	% wt.	Hard	% wt.	Hard	% wt.	Hard
10% Acetic Acid	82	0.7	80	2.1	72	4.01	69	6.13	62	10.15	63	15.4	46	
10% Lactic Acid	82	0.38	80	1.19	79	2.31	78	3.48	77	5.71	74	8.78	59	
Toluene	82	0.06	80	0.81	75	3.07	65	6.89	52	20.3	46	18.32	52	
Xylene	82	0.01	78	0.04	77	0.36	75	1.29	70	4.65	72	15.39	57	
Trichloroethane	82	0.05	77	0.4	77	2.31	74	3.54	68	13.74	65	-	-	
Methanol	82	3.13	66	8.37	38	12.83	25	6.23	30	5.71	35	-	-	
Ethanol	82	0.99	75	2.89	63	5.55	46	8.55	45	9.34	43	6.81	52	
Butyl Cellosolve	82	0.37	76	1.47	73	3.83	66	6.34	63	12.42	53	-	-	
Methyl Ethyl Ketone	82	6.41	63							DESTROYED				
Skydrol	82	0.11	77	0.46	77	1.26	74	2.18	74	3.67	75	6.03	56	
70% Sulfuric Acid	82	0.22	83	0.11	82	0.15	81	0.21	81	0.16	81	-0.16	81	
98% Sulfuric Acid	82	-15.6	80							DESTROYED				
Deionized Water	82	0.07	82	0.31	81	0.54	82	0.93	82	1.65	80	2.14	80	
50% Sodium Hydroxide	82	0.06	82	-0.05	82	-0.04	82	-0.03	83	-0.06	83	-0.1	63	
Bleach	82	0.09	83	0.28	83	0.52	83	0.83	82	1.28	81	1.67	72	