



ICO Flexi Coat BD

Product Data Sheet

Product Description

ICO Flexi-Coat BD is an economical, flexiblized two part epoxy floor coating specifically designed for bridge deck overlays. Typically applied in a two-coat/seed application to achieve a minimum thickness of ¼", it is designed to minimize downtime by curing in 2 to 3 hours at 70°F. It is a zero VOC, no odor material with a mixing ratio of 1:1 by volume, A:B. With a minimum tensile elongation of 35% it will resist vibration and fine hairline cracking. Seeded with flint rock (or other specified aggregate) it has demonstrated long term wear and abrasion resistance even to snow plows and heavy vehicular traffic.

As an impervious, chemical resistant barrier, it limits migration of liquids into the concrete, thereby preventing premature spalling from freeze/thaw cracking and chloride ion diffusion. It can be applied from 50° to 90°F in any thickness up to 120-130 mils; however, two thinner applications are recommended for a more uniform finish. It is available only in a clear version in 20 gal bulk packs or 100 gallon drum kits.

Typical Applications

ICO Flexi-Coat BD is primarily used for bridge deck overlays where abrasion and wear resistance, together with chemical resistance against salts, oils, gasoline and kerosene are mandatory. It can also be used as a clear base coat in parking garages, ramps and mezzanines (however, it should be top coated with one of our urethane coatings for a better gloss, easier cleanable surface).

Physical Properties

Tensile Strength ASTM D-638:	2450 psi	Compressive Strength D695, filled:	18,000 psi
Tensile Elongation D-638 (neat resin):	35%	Hardness, Shore D:	70
Bond Strength to Concrete:	>450 psi (concrete failure)	Gardner Impact Strength:	160 inch lbs.
Water Absorption ASTM D-570:	0.2% loss in 7 days		

Physical Characteristics

Density, lbs./gal		Viscosity @ 77°F, cps	
Part A:	9.5	Part A:	2800
Part B:	8.2	Part B:	1800
A&B Mixed:	8.8	A&B Mixed:	2200
Curing Times		50°F	70°F
Pot Life:	30 min	20 min	10 min
Working Time:	35 min	25 min	10-15 min
*Tack Free:	8 hrs.	1 hr.	30-60 min
*Hard, Foot Traffic:	12 hrs.	2-3 hrs.	1-2 hrs.
*Hard, Truck Traffic:	16-18 hrs.	4-6 hrs.	2-3 hrs.
*Assumes aggregate filled systems			

A:B Mixing Ratios	
By Volume	By Weight
1:1	1.2:1

Color Availability	Packaging and Coverage Rates (@60mils/coat)	
Clear Only	20 Gallon Bulk Kit:	500 SF
	100 Gallon Drum Kit:	2,500 SF
Shelf Life: 1 year if stored between 60°F & 80°F in unopened containers.		

Installation

Please refer to our application specs for detailed instructions. Particular care must be taken to follow those instructions precisely to assure proper installation.

- Mechanically shot blast floor to provide a minimum 30 - 40 grit profile.
- Fill all spalled areas at least ½" in depth with ICO Quick Patch (for holes <½" in depth use ICO Gel or Flexi-Coat BD w/aggregate). Allow to dry tack free.

3. All cracks $\frac{1}{8}$ " in width or greater should be routed out in a V-notch and filled flush to surface with ICO Gel. Allow to dry tack free.
4. No priming necessary; however, damp or new concrete should be primed with ICO Primer LV or LVFC.
5. Add Parts A and B together in a ratio of 1:1 by volume in a mixing bucket and mix for at least 30-60 seconds at low speed, (<750rpm), then immediately pour onto floor in a ribbon pattern and spread with a notched rubber squeegee at a coverage rate of 25/SF per gallon. Do not mix more than can be spread and seeded (see#5) in 25 minutes at 70°F.
6. Use porcupine roller to smooth out floor, followed by immediately broadcasting to refusal with single-size aggregate pre-selected by customer. Seeding can be done by hand or with a blower; make sure aggregate floats down onto surface rather than being thrown down into resin, as this will cause lumps in finished surface. Continue to broadcast aggregate until the entire liquid is covered. Allow to dry hard, foot traffic. Total thickness of filled system: $\frac{1}{4}$ ", when liquid applied at 25SF/gal.
7. Sweep off excess sand. To achieve $\frac{1}{4}$ " thickness, apply second coat at 20-25SF/gal and again, seed to refusal with pre-selected aggregate.

Failure to follow the above instructions, unless expressly authorized by a Milamar Technical Service Representative, will void our material warranty.

Precautions

1. Do not apply below 50°F.
2. Resin tends to dull; do not use as a top clear coat.
3. Recoat window at 70°F: 24 hours.

Product Specifications

The specified area shall receive an application of ICO Flexi-Coat BD as manufactured by Milamar Coatings LLC. of Oklahoma City, Oklahoma. The material shall be installed by precisely following the manufacturer's published recommendations pertaining to surface preparation, mixing and application. The material shall be a low odor, two part, 100% solids epoxy coating with a minimum tensile elongation of 35% (neat resin) and a minimum tensile strength of 2500psi, as measured under ASTM D-638. It

shall be capable of being applied up to 60mils per application and cure hard within 2 to 3 hours @ 70°F. It shall have a minimum bond strength of 450psi to concrete (concrete failure).

The data statements and recommendations set forth in this product information sheet are based on testing, research and other development work which has been carefully conducted by us, and we believe such data. Statements and recommendations will serve as reliable guidelines. However, this product is subject to numerous uses under varying conditions over which we have no control, and accordingly we do NOT warrant that this product is suitable for any particular use. Users are advised to test the product in advance to make certain it is suitable for their particular production conditions and particular use or uses.

LIMITED WARRANTY

Milamar Coatings products are manufactured to be free of defects in material and workmanship in meeting the properties specified on its individual Product Data Sheets. Users and installers of Milamar Coatings products are solely responsible for determining the suitability of the products for specific product applications. Milamar Coatings makes no Warranty or Guarantee, express or implied, including warranties of fitness, design compatibility or merchantability, for any particular use and shall have no responsibility or liability, including direct, indirect or consequential damages, due to injury, delay or third party claims for installation or repair. Likewise, Milamar Coatings assumes no liability of any nature for products that are adjusted in the field or that do not utilize all specified Milamar Coatings components. Should any Milamar Coatings product be proved to be defective within one year from the date of shipment, Milamar Coatings will, at its sole discretion, either replace the material; issue a credit to the customer's account; or provide a cash refund for the initial, paid purchase price of the material. Potential claims regarding product quality must be received in writing by Milamar Coatings within 30 days of the discovery of such potential defect. This Warranty is exclusive of all other warranties, expressed or implied, and may only be adjusted in writing, signed by an officer of Milamar Coatings, L.L.C.

Milamar Coatings, L.L.C.
www.milamar.com | 800.759.7659
311 NW 122nd St., Suite 100
Oklahoma City, OK 73114