



Miracote BC Pro

Product Technical Data Sheet

Miracote **BC Pro** is a single component, polymer-modified, rigid cementitious coating that is mixed with potable water on site for use in a wide range of waterproofing and dampproofing functions. Once applied and properly cured, **BC Pro** will form a dense barrier against water ingress providing long term protection for concrete, masonry, and other porous substrates.

In addition to waterproofing functionality, Miracote **BC Pro** is a superior choice as a bond coat and adhesion promoter for pool plaster applications. Specially formulated to provide unparalleled performance in full submersion, **BC Pro** delivers superior mechanical and chemical bond between new pool plaster finishes over existing plaster, concrete and similar substrates. Miracote **BC Pro** is designed not only to enhance performance, but to save time and the cost of application by eliminating the need for excessive preparation work of existing pool substrates.

WHERE TO USE

- Pools & Spas
- Raised Bond Beams
- Fountains, ponds & water features
- Dams, reservoirs, spillways, and troughs.
- Tunnels, retaining walls, elevator pits and foundations.
- Water, wastewater, and secondary containment structures.
- Horizontal, vertical, above and below grade applications.
- Waterproofing protection for concrete, brick, and masonry.
- Filler for “bug holes” & parge coat for a smooth finish.

ADVANTAGES

- Single component - Just add water.
- Available in white – easier to work with on hot days.
- Economy and performance in one package.
- Enhanced bonding capabilities.
- Vapor permeable – allows concrete to “breathe”.
- Excellent freeze/thaw resistance.
- Suitable for use in negative side applications.
- Ideal bond coat between a cementitious waterproofing and plaster.
- Provides balanced hydration during plastering process.
- Eliminates excessive substrate preparation.
- Saves time and money in labor and equipment costs.
- Significantly reduces pool plaster delamination problems.
- Low VOC – Meets LEED Criteria.
- Can be integrally pigmented to match various plaster finishes.

THEORETICAL COVERAGE RATES**

Approximate Yield/Unit (55lb. bag) .57 cu. ft.

Waterproofing and Dampproofing:

One Coat Application	220 sq. ft. @ 1/32” (31.25 mils)
Two Coat Application	110 sq. ft. @ 1/16” (62.50 mils)
Three Coat Application	73 sq. ft. @ 3/32” (93.75 mils)

Bond coat and adhesion promoter: (One coat application)

Loop Roller	180 to 220 sq. ft.
Hopper Gun Spray	225 to 325 sq. ft.

Actual consumption rates are dependent on many factors including substrate texture, porosity, and allowance for waste. The above rates of application represent typical values. **BC Pro may be applied in lifts up to 1/16” (1.5 mm) thickness.

PACKAGING and COLORS

55-pound bag Natural Gray or White Powder

MIX RATIO

Add 5-7 quarts of water per unit

SHELF LIFE AND STORAGE

One year from the date of manufacture when unopened and material is stored in a protected environment free from moisture, excessive heat, freezing temperatures, and direct sunlight.

TYPICAL PHYSICAL PROPERTIES @ 75°F (24°C)

Water Demand	5 to 7 quarts/55 lbs.
Working Life	15-60 minutes (temperature dependent)
Setting Time	approximately 2 – 4 hours
Recoat Time	2-4 hours or when dry
Adhesion ASTM C932, Modified (Substrate failure).....	>250 psi
Tensile Strength ASTM C307.....	465 psi
Compressive Strength ASTM C579, Method A.....	4,100 psi
Flexural Strength ASTM C580.....	780 psi
Freeze/Thaw	No scaling, peeling, or flaking (Coated concrete cylinders immersed 8 hrs. in saltwater solution followed by 16 hrs. freezing, 200 cycles)
Water Vapor Permeability ASTM E96.....	1.96 perms/in
Impact Resistance MIL-D-3134, Para. 4.7.3.....	No cracking or detachment (2 lb. steel ball dropped from 8” height onto coated steel plate)
Minimum Cure Time for Plaster	8 – 24 hours
VOC	0 g/L

OVERVIEW OF INSTALLATION STEPS

• **Surface Preparation** – All surfaces must be mechanically cleaned, sound, and free from all discontinuities, mortar fins, raised or sharp edges, hollow areas, and any bond inhibiting substances including, but not limited to, loosely adhered materials, paint, mildew, algae, fungus, rust, and other foreign matter. For concrete substrates, a minimum surface profile of CSP-3 or higher is required. Concrete, mortar, masonry, natural stone, plaster, and other absorptive porous substrates should be **(SSD) saturated surface dry** with no standing water at the time of application.

• **Mixing** – Miracote **BC Pro** must be mixed mechanically to a uniform consistency in a clean mixing vessel using a low-speed drill (300-450 rpm) with a double box “Cheater Beater” or “Jiffy-type” mixing paddle. Always keep drill speed low and the mixing cage submerged to minimize the risk of entraining air into the material. Mix water must be accurately measured using volumetric graduated containers or similar. Add 5 (five) quarts of cool potable water into the mixing vessel. When mixing **BC Pro** always add the powder component gradually to the water. Thoroughly mix the complete unit for a minimum of three minutes. If desired, add one to two more quarts of water and continue mixing for an additional two minutes or until a uniform consistency is achieved that is free of lumps and pockets of dry powder. When mixing partial units, batch powder and water proportionately by volume. Before applying to the host substrate wait for about two minutes to allow complete dispersion of the dry polymer throughout the mix.

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- **Application** – Depending on the type of application, **BC Pro** can be applied in a variety of methods including trowel, mortar brush, standard roller, loop roller, or spray-applied with a hopper-type gun or similar low or high pressure spray apparatus.

Waterproofing and Dampproofing Applications – Apply **BC Pro** by trowel, masonry brush, roller, or spray equipment such as hopper gun, rotor-stator pump, or peristaltic pump. To ensure intimate contact with concrete and other porous substrates, simultaneously scrub coat and apply the first coat to fill all pores and voids at the desired application thickness from 1/32” to 1/16”. For this reason, the use of a roller on the first coat is not recommended. Always apply **BC Pro** in two or more coats for maximum protection. The required minimum application thickness of Miracote **BC Pro** for waterproofing protection is 3/32”, and 1/16” minimum for dampproofing protection.

Bond Coat and Adhesion Promoter Applications – Apply **BC Pro** by loop roller or spray equipment such as hopper gun, rotor-stator pump, or peristaltic pump. Bond coat applications require only one coat at the recommended coverage rate for the desired application method being employed. Minimum recommended cure time prior to plastering is 24 hours to allow for adequate hydration of Miracote **BC Pro** coat. For maximum hydration of the bond coat to occur 48 hours is highly preferred. Allow for extended cure time in cool temperatures, high relative humidity or other conditions that inhibit the rate of evaporation.

FOR BEST RESULTS

- Always install a minimum 4’ by 4’ test area site mock-up for approval of acceptable color, texture, finish, adhesion, and any other critical requirement acceptable to the owner prior to proceeding with the installation.
- Verify and download current versions of product technical data sheets (PTDS), material safety data sheets (MSDS), and installation guides (IG) at www.miracote.com.
- Protect materials at all times from excessive heat and cold, and pre-condition to room temperature as necessary.
- Regularly check wet film thickness with mil gauge and monitor consumption to ensure correct application rates are obtained.
- The proper application of this product is the sole responsibility of the end user. Job site visits by Miracote representatives are only for the purpose of making recommendations, and do not assume any liability for supervision or quality control.
- Measure surface and ambient temperatures to ensure the material is only applied when temperatures are at a minimum of 40°F (4.5°C) and maximum 90°F (32.2°C) during mixing, placement, and time of application. Always follow ACI “Hot Weather” Concrete Guidelines.
- Natural gray and pigmented cementitious coatings may exhibit color variegation due to fluctuating evaporation rates during cure.

LIMITATIONS

- Do not use on Painted, Vinyl, Plastic, Fiberglass, or Sealed Surfaces.
- Avoid applying **BC Pro** when rain is anticipated within 24 hours.
- As with all cementitious products and materials, do not allow contact with aluminum and other alkali sensitive metals to avoid any adverse chemical reaction.

LIMITED WARRANTY

NO WARRANTY SHALL BE EFFECTIVE UNTIL THE TERMS AND CONDITIONS OF SALE SET FORTH IN CROSSFIELD PRODUCTS CORP. INVOICES ARE MET.

Crossfield Products Corp. warrants the purchaser of its products that such products are free from manufacturing defects. Crossfield does not warrant or guarantee the workmanship performed by any person or firm installing its products. Crossfield’s obligation under this warranty is limited solely to the original purchaser and solely to the remedy of replacement in kind of any product which Crossfield sold which may prove defective in manufacture within one year from date of installation, provided said product was stored correctly and installed within the product’s shelf life, by the original purchaser and under Crossfield examination shall disclose to Crossfield’s satisfaction to be thus defective.

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CAUTION: ALWAYS KEEP OUT OF THE REACH OF CHILDREN.



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