

Bonding Slurry

DESCRIPTION • *BondCrete* is a single-component, polymer-modified, cement-based slurry with excellent bonding properties.

USES • *BondCrete* is used as a bonding layer between old and new concrete surfaces and for bedding and bonding overlays to existing masonry surfaces. *BondCrete* is suitable for interior as well as exterior applications and for on-grade and above-grade applications such as floors, walls, benches, and water features.

ADVANTAGES •

- ✓ Excellent adhesion to concrete and mortar.
- ✓ Provides a textured surface for good mechanical keying of the topping.
- ✓ Easy to use - just add water.
- ✓ Easy clean up with water.
- ✓ Highly versatile; can be applied by brush, trowel, hopper gun, or squeegee.

COVERAGE • Coverage will vary depending on substrate surface profile and porosity, required depth of installation, surface finish and preparation method. Dominant coverage rate is approximately 15 square meters per 25 kg bag per coat when spread with a squeegee.

PHYSICAL PROPERTIES •

Test	Criteria	Result
Tensile Adhesion (EN 12808-3:2002)	-	2.1 N/mm ²

LIMITATIONS • *BondCrete* must be applied over structurally sound and non-moving surfaces. Do not apply in areas subject to hydrostatic pressure or continuous water immersion. Existing concrete surfaces must be fully cured prior to application of *BondCrete*.

BondCrete should not be applied in thicknesses greater than 3 mm in a single coat. It is highly recommended that applications of *BondCrete* be as thin as possible.

Do not apply if ambient temperature is expected to drop below 7°C during installation or in the proceeding 48 hours, or if rain is expected in the proceeding 24 hour period after application. Do not mix or apply when ambient temperature is expected to exceed 35°C.

Overlays must be applied on *BondCrete* while it is still tacky. Never apply any topping on a dry coating of *BondCrete*; application on a dried coating may

lead to delamination of the overlay or top screed. In a dried condition, *BondCrete* acts as a bond retarder, not as a bond enhancer. If the *BondCrete* layer dries before it receives the overlay topping, apply a new thin coat of *BondCrete*.

SURFACE PREPARATION • All bases must be fully cured, sufficiently rigid, and clean of any surface contamination such as oil, dirt, grease, coatings, curing compounds, and laitance that may prevent good suction. Dense, smooth surfaces, and those retaining excessive amount of form release agent can cause delamination from the base. Any painted or coated surfaces should be sandblasted and/or pressure washed to remove existing coatings. Use of detergents or soap is not recommended as they may leave a film that can cause bonding failure.

Surrounding areas should be covered and protected from material spills and equipment contact. Rope off work area, remove surrounding vehicles, and close off to traffic.

Cracks should be corrected with *PatchCrete 102 Crack Filler*; while potholes should be corrected with *PatchCrete 101 Multi-Use Repair Mortar*.

It is recommended to water the surface of the concrete prior to application of the *BondCrete* layer in order to prevent excessive drying; do not apply the *BondCrete* while water puddles are still present on the surface. Preferably, flood the surface of the concrete a day before application of the *BondCrete*.

MIXING • Mixing should be done with a drill mounted jiffy-type mixer at low speeds. Always add clean potable water first. While mixing, slowly add the *BondCrete* powder and mix for approximately three minutes. Adjust consistency if necessary and mix for a further two minutes until a uniform lump-free consistency is reached. The high polymer content in *BondCrete* allows for the consistency to be adjusted as desired by applicator. Use a fairly stiff mix when trowelling or dashing on, or a thinner mix when applying by brush. Mix only sufficient quantities that can be placed within 45 minutes.

APPLICATION • Application temperatures should be between 5°C and 35°C. It is highly recommended to test a small area to ensure bonding ability and satisfaction of appearance before complete application.

As Bonding Agent: Apply a thin coat of *BondCrete* using a stiff bristle brush ensuring that the material gets in contact with the profile of the substrate. *BondCrete* thickness should not exceed 3 mm at

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any point. While still tacky, apply the new topping before the *BondCrete* layer dries. Do not allow *BondCrete* to dry. Never apply any topping on a dry coating of *BondCrete*; application on a dried coating may lead to delamination of the top screed. If the *BondCrete* layer dries before it receives the new topping, apply a new thin coat of *BondCrete*.

As Overlayment Bedding & Bonding: Two coats are recommended: the first allowed to dry, and the second just prior to placement of the overlay material. First coat will level the profile of the substrate and promote uniform drying of the topping. Second coat will enhance the bond of the topping to substrate. Apply both coats of *BondCrete* as thin as possible using a squeegee. *BondCrete* coat should not exceed 3 mm thickness in any single coat application. Overlay must be placed on the *BondCrete* coat while it is still tacky. Do not allow *BondCrete* to dry. Never apply any topping on a dry coating of *BondCrete*; application on a dried coating may lead to delamination of the overlay. If the *BondCrete* layer dries before it receives the new topping, apply a new thin coat of *BondCrete*.

CURING • DO NOT WATER CURE. *BondCrete* is self-curing.

CLEANING • Clean all tools and equipment promptly with warm water.

STORAGE & SHELF LIFE • Keep material covered and off the ground to prevent exposure to moisture. Store in a dry, covered area away from direct sunlight. Under recommended storage conditions and when stored in original unopened packaging, expected shelf life is 12 months from the date of purchase.

SAFETY PRECAUTIONS • KEEP OUT OF REACH OF CHILDREN. DO NOT TAKE INTERNALLY. CONTAINS CEMENT AND SILICA (QUARTZ). Portland cement and silica based products present health hazards. May cause delayed lung injury (silicosis). Irritating to eyes and skin. Use in adequate ventilation and do not breathe dust. Extremely fine material, always use a NIOSH/MSHA TC 21C approved dust mask when handling, especially during spray applications. Use neoprene gloves, safety goggles, and a dust mask when handling. FIRST AID: Eyes – Do not rub eyes, immediately flush with fresh water. Skin – Wash with soap and water. Inhalation – If experience difficulty breathing or if inhaled, move to fresh air. If symptoms persist, seek medical attention.

PACKAGING • 25 kg bags.

Creative Concrete Concepts

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