Creative Concrete Concepts

TopCrete Base

Bedding Coat for Overlays

TECHNICAL DATA SHEET

DESCRIPTION • *TopCrete Base* is a single component, polymer modified, cement-based bedding coat formulated for use as the base layer in certain TopCrete overlay systems.

USES • *TopCrete Base* is used as a bonding and bedding layer between *TopCrete 700/711* overlays and existing cured concrete surfaces. *TopCrete Base* is applied on horizontal and vertical surfaces just before application of the *TopCrete* overlay.

ADVANTAGES •

- ✓ High adhesion strength.
- ✓ Easy to use – single-component dry powder, just add water.

COVERAGE • Coverage will vary depending on substrate surface profile and porosity, required depth of installation, and surface profile. Coverage rate is approximately 3 square meters per 25 kg bag when applied with at a thickness of 3 mm with a notched trowel.

PHYSICAL PROPERTIES •

Property	Test Method	Result
Tensile Strength	ASTM C-78	10 MPa
Pot Life		45 min.
Min. Set Time		24 Hrs.
VOC	USEPA 24	0 g/L

LIMITATIONS • Do not apply if ambient temperature is expected to drop below 7°C during installation, 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 40°C.

Overlays must be applied on *TopCrete Base* while it is still tacky. Never apply any topping on a dry coating of *TopCrete Base*; application on a dried coating may lead to delamination of the overlay. If the *TopCrete Base* layer dries before it receives the overlay topping, apply a new coat of *TopCrete Base*.

SURFACE PREPARATION • All bases must be 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 grinded to remove existing coatings. Use of detergents or soap is not recommended as they may leave a film that can cause bonding failure. Light grinding or sand blasting prior to application of *TopCrete Base* is highly recommended to open the pours of the concrete and produce a rough profile, enhancing the adhesion of the overlay system. The surface must then be thoroughly cleaned of any dust or debris by brushing and/or washing.

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.

Non-moving cracks should be filled with *MortCrete 3000 Epoxy Mortar* and broadcast silica aggregates to aid mechanical keying of *TopCrete Base*. Alternatively, a cement-based crack filling compound such as *Rapid Set Cement All* or *PatchCrete 102 Crack Filler* may be used to fill cracks. Any chipped edges, potholes or unsound concrete should be patched with a multi-purpose, non-shrink patching compound such as *PatchCrete 101 Multi-Use Repair Mortar* or *Rapid Set Cement All*.

To prevent rapid drying of the *TopCrete Base* coat, it is recommended to saturate old concrete surface with clean potable water at least a dry prior to application of the *TopCrete Base* layer; do not apply the *TopCrete Base* while water puddles are still present on the surface, the surface should be visually dry. Mist the concrete surface with clean potable water just before application.

MIXING • Mixing should be done with a drill mounted jiffy-type mixer at low speeds. Always add clean potable water first. Use approximately 6 liters of water per 25 kg bag of *TopCrete Base*. While mixing, slowly add the *TopCrete Base* powder and mix for approximately three minutes. Adjust consistency if necessary and mix for a further two minutes until a uniform lump-free thick consistency is reached. Mix only sufficient quantities that can be placed within 20-30 minutes.

APPLICATION • Application temperatures should be between 5°C and 40°C.

Mist the substrate surface just prior to application, do not allow water puddling. Use proper sized notched trowel to ensure full coverage of *TopCrete Base* and formation of a bedding layer of adequate thickness (average 3 mm). Use an 8-10 mm notched trowel with flat side of trowel held at a 35° to 40° angle to apply the material to form a thick bedding of the base coat. Allow the *TopCrete Base* layer to set for a few minutes depending on ambient conditions. While still tacky and slightly soft to the touch,

immediately trowel on the TopCrete 700/711 overlay material with adequate force, forcing the overlay material into the ridges formed by the notched trowel. DO NOT APPLY OVERLAY ON DRIED BASE LAYER. Wear spiked shoes when needed when applying on horizontal surfaces.

CURING • DO NOT WATER CURE. *TopCrete* system are typically 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 CHIDREN. 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 breath 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.

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