

TopCrete Adhesive

Adhesive Bedding Base for Overlays



DESCRIPTION • *TopCrete Adhesive* is a single component, polymer modified, cement-based adhesive formulated for use as the base and adhesive layer in TopCrete overlay systems.

USES • *TopCrete Adhesive* is used as a bonding layer between old or new concrete surfaces and *TopCrete 700/711* overlays. *TopCrete Adhesive* is applied on horizontal and vertical surfaces just before application of the *TopCrete* overlay. *TopCrete Adhesive* is suitable for dry, wet, and permanently immersed applications.

ADVANTAGES

- ✓ Superior adhesion to concrete and mortar.
- ✓ Easy to use – single-component dry powder, just add water.
- ✓ Easy clean up with water.
- ✓ High polymer modification for excellent adhesion properties.

COVERAGE • Coverage will vary depending on substrate surface profile and porosity, required depth of installation, and surface profile. Coverage rate is approximately 2.5-3 square meters per 25 kg bag when applied with at an average thickness of 3-4 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 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 40°C.

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

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 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 filled with *MortCrete 3000 Epoxy Mortar* with broadcast silica aggregates or *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 *TopCrete Adhesive* layer in order to prevent excessive drying; do not apply the *TopCrete Adhesive* while water puddles are still present on the surface. Preferably, flood the surface of the concrete a day before application of the *TopCrete Adhesive*; in addition, on hot and dry days moisture the surface of the concrete with a fine water mist.

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 Adhesive*. While mixing, slowly add the *TopCrete Adhesive* 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. It is highly recommended to test a small area to ensure bonding ability and satisfaction of appearance before complete application.

Wet the surface. Use proper sized notched trowel to ensure full coverage of *TopCrete Adhesive* and formation of a bedding layer of adequate thickness (minimum 3 mm). Apply a skim coat of the material with flat side of trowel held at a 35° to 40° angle; this forces the material into irregularities in the surface for maximum adhesion. Then apply an additional quantity of grout with notched side of trowel. It is recommended to use a notched trowel of adequate profile depth, typically 8-10 mm, in order to form a thick bedding of the adhesive while the notched trowel is held at an angle. Allow the adhesive layer

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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 ADHESIVE LAYER.** Wear spiked shoes when applying on horizontal surfaces.

CURING • DO NOT WATER CURE. *TopCrete Adhesive* 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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