

# TopCrete

## Methodology Statement

### **Product Name: TopCrete** **Decorative Stamped Concrete**

#### **Methodology of work:**

- 1- Receive the site clean from any debris.
- 2- Limit access to work area by cordoning off the perimeter of the work zone.
- 3- Establish Elevation points according to required slope (minimum recommended 1 %)
- 4- Form edges according to design.
- 5- Place steel re-enforcement grid as per design requirements. Steel to continue between different pours except at expansion joints.
- 6- Place steel rings around existing manholes or openings if any.
- 7- Pour concrete (350 Kg. Cement per cubic meter) with an average thickness as required.
- 8- Spread and straighten the concrete according to slope.
- 9- Supply & Apply PaveCrete/TopCrete CH200 Color hardener in the selected color by using the dry shake method according to material specs.
- 10- Bullfloat the hardener in the concrete.
- 11- Supply and apply PaveCrete/TopCrete RA300 powder release agent or PaveCrete 400 liquid release agent (selected complimentary color).
- 12- Perform the stamping according to the selected pattern.
- 13- Saw Cut control Joints to 1/4 the slab thickness.
- 14- Wash slab to provide varied antique look and remove excess release agent.
- 15- Spray TopCrete Acrylic Sealer (Works as Curing Agent as well) once slab is dry. Wait at least 24 hours before use.

#### **TopCrete Installation remarks**

**Sub-grade Preparation:** The sub-grade on which TopCrete is to be installed should be well drained and have adequate and uniform load-bearing characteristics. To reduce cracking it should be graded so that the thickness of the concrete will be uniform. At the time of concreting, it must be moist, completely consolidated, and free of dirt or frost. If TopCrete is to be installed on top of existing concrete slabs, expansion and other joints should be followed on the TopCrete slab.

**Protection:** Care must be taken not to contaminate surrounding areas with "Toss on Color". It may be difficult or impossible to remove from finished surfaces.

**Forming:** Forms surrounding each pour must be installed according to agreed upon slopes draining the water away from entrances and toward floor drains if existing. Minimum slope should be 1%.

**Steel reinforcement:** In general slabs on well compacted grade do not require steel re-enforcement. 6 mm steel reinforcement if required by design should be placed at maximum 30 cms on center where necessary.

**Concrete Mix Design and placing:** In areas where the PaveCrete slab is below grade, adequate access wells and ventilation is required to allow the concrete to set. The concrete should have a minimum of 8 cm in thickness if placed on grade. For concrete topping on top of existing concrete slabs, concrete could be a minimum of 6 cm in thickness. The concrete mix should contain a minimum of 6 sacks (300 kgs.) of cement per cubic meter of concrete. The water content should be the minimum amount practical, and the slump should be between 100 mm and 120 mm. The concrete mix must not contain any admixture or additive that contains calcium chloride. During cold-weather concreting, a non chloride accelerator may be used. For additional protection against shrinkage cracks fibers could be optionally added to the concrete mix. Placing and finishing of the concrete should be as per ACI recommendations.

**Color Hardener:** Is spread using the dry shake method. A Minimum of 2.5-3 kg/m<sup>2</sup> is recommended. Light colors (ex. Beige) might require more. When no excess "bleed water" is on the surface apply 70% of the PaveCrete CH200 Color Hardener and float on the surface. The balance of 30% should be applied with a second application and it should be floated and trowelled.

**Release Agent:** TopCrete RA300 Release agent powder is sprinkled evenly on top of the colored and floated concrete prior to stamping. If PaveCrete 400 liquid release agent is used it should be sprayed on top of the slab in a misting fashion just before the stamping.

**Stamping:** When the concrete is in its plastic stage prior to setting, the surface shall be stamped using the selected TopCrete stamping tool.

**Control Joints:** Saw cuts using the proper concrete saws shall be performed according to ACI recommendations and at pre-determined distances. Timing for saw cutting depends on weather conditions and concrete hardness. If preferred, a PVC joint may be pre-installed to provide the control joint requirement.

**Curing, Washing & Sealing:** TopCrete concrete surfaces must be washed with clean water for a minimum of 3 days. Since the top surface of the concrete is consolidated & trowelled, the slab is dense and its pours are not opened thereby leaving water trapped inside for curing. The slab should be thoroughly dried prior to application of TopSeal clear acrylic sealer (which acts as a curing agent as well) to protect the surface against dusting, UV deterioration and to make cleaning maintenance easier. Access to the PaveCrete slabs will be prohibited during this stage. A period of 24 hours is required for drying after sealer application.