

PaveCrete 500

Integral Color Admixture



DESCRIPTION • *PaveCrete 500* is a ready-to-use concrete admixture that gives concrete integral, uniform, streak-free, non-fading, and permanent color. *PaveCrete 500* is provided in accurately pre-dosed, powder form packages ready to be added directly to the concrete mix.

USES • *PaveCrete 500* is used as an additive to concrete and other cementitious mixes to give it permanent and non-fading color. *PaveCrete 500* is suitable for coloring concrete to be used in flatwork applications as well as vertical applications such as sidewalks, hardscapes, cast in-situ walls, and pre-cast concrete. *PaveCrete 500* is also suitable for decorative concrete applications such as stamped concrete where integral color is required in lieu of dry shake color hardener, and sandblast or exposed aggregates concrete to be treated with *ExpoCrete 711 Concrete Surface Retarder*. *PaveCrete 500* may also be used in conjunction with other concrete coloring treatments such as *ChemStain Acid Based Stain* and *HydroStain Water Based Stain* to produce richly colored and attractive concrete surfaces.

ADVANTAGES

- ✓ Durable, UV-resistant integral color.
- ✓ Reduced color bleeding
- ✓ Exterior and Interior application.
- ✓ Ready and easy to use.
- ✓ Accurately pre-dosed package.
- ✓ Available in a wide range of colors.

LIMITATIONS • Avoid using any admixtures that contain Calcium Chloride. Calcium Chloride may cause salt deposits to form on the concrete surface, leading to discoloration. If the color is batched from large bags, always use a whole number of bags per truck. Do not try to batch partial bags. Do not change cement brands in the middle of a job; cements from different sources have different shades of gray, consequently changes in cement color will cause changes in the concrete color. Variations in the cement type and source, slump, color and type of aggregates, curing method, and finishing technique will all cause slight variations in the final color; therefore, maintaining batch-to-batch consistency is essential to maintain color uniformity. Do not add water to the surface during finishing operations; adding water may create a blotchy surface. The quantity of colored concrete mixed should not be less than one-third of the capacity of the mixing drum. Do not pump concrete without first priming the pump with an identically colored slurry mix. Lighter shade colors require the use of white cement concrete, and some intense colors cannot be cost-effectively produced with integral coloring. For more intense and vibrant color, the use of

PaveCrete 200 Premium Color Hardener is recommended. For high traffic areas requiring high abrasion resistance, the surface treatment of concrete with *PaveCrete 200 Premium Color Hardener* is highly recommended.

DOSAGE • *PaveCrete 500* should be added at the rate of one bag per cubic meter of concrete. *PaveCrete 500* packages are factory pre-dosed and formulated according to the cement content and concrete mix design. The concrete mix design should be provided at the time of order placement.

SURFACE PREPARATION • The Sub-grade should be well drained and have all adequate and uniform load-bearing characteristics. It must be moist, completely consolidated, and free of frost at the time of concreting. If necessary, the sub-grade may be dampened with water in advance of concreting, but concrete should not be placed over free standing water or muddy, frozen, or soft spots. In sand corrosive soil substrate, 1 mm polyethylene sheet is recommended under the concrete slab. If a moisture sensitive finish coat will be installed on the concrete, such as epoxy or polyurethane, installation of a vapor barrier is a must. Surrounding areas, landscaping, and adjacent surfaces should be protected. The work area should be roped off, nearby vehicles removed, and appropriate sections closed to traffic.

MIX DESIGN, BATCHING, AND MIXING • All aggregates must be clean and free of particles that may deteriorate; the water cement ratio should be less than 0.55; and the slump should not exceed 10 cm for good workability - adding extra water to increase slump may cause excessive bleeding and non-uniformity in color. Avoid the addition of calcium chloride or any admixtures containing calcium chloride. Additionally, all aggregates in the concrete mix must be non-reactive and free of deleterious materials. Color of cement (white or gray) used in the concrete mix depends on the finished color required.

Don't add *PaveCrete 500* first, it may stick to the mixer baffles and not get uniformly distributed. The best sequence is to first batch some of the aggregates, both coarse and fine, and water. With mixer running, add the color and mix for at least a minute before adding the balance of materials. Turn the drum at mixing speed for an additional 3 to 5 minutes before the truck leaves the yard. If dosing on-site, add the entire contents of the *PaveCrete 500* package into the ready mix truck and allow at least 10 minutes of mixing time

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Watch slump particularly closely during batching. Slump variations often indicate that water content has changed, perhaps because of clean out water left in the truck or changes in the aggregate surface moisture content. Changes in water content cause variations in color.

CONCRETE PLACEMENT • The concrete should be placed and consolidated so that it completely fills all space inside the forms and provides a suitable surface for finishing.

The pour for each panel must be continuous to prevent cold joints. To prevent uneven distribution of the aggregates near the bottom or top surfaces, it is recommended that the concrete be vibrated evenly. For flat work, a vibrating screed is recommended over pencil vibrators as their overuse could lead to aggregate segregation.

For vertical works, the pencil vibrator should be inserted perpendicular to the top of the panel without touching the reinforcing steel and must not be used to move the concrete. Vibration should continue only to the extent needed to achieve proper consolidation.

Only uniformly slip-resistant textures, such as broom, swirl, sponge flat, exposed aggregate or stamped concrete should be considered for exterior concrete flat work.

Don't start finishing colored concrete until the bleed water has evaporated. Finishing too early causes discoloration and a weak non-durable surface. Use a mechanical float or trowel if possible. The one-way motion of the blades creates a more uniform colored surface than the back-and-forth motion used in hand finishing. Move edges in one direction only to produce a more uniform color.

FINAL FINISH • Surfaces of concrete integrally colored with *PaveCrete 500* can be finished as stamped/textured, broomed, troweled, rock-salt finished, sand blasted, exposed aggregate or any other number of other appealing textures.

CURING • Curing should be carried out immediately after completion of finishing either by conventional methods or by the application of *A-Z 100 Curing Agent*. Avoid the use of any materials that contain sodium-silicate or the use of plastic sheeting or misting techniques. Water should be used with caution for curing colored concrete surfaces; uneven flooding could lead to color variations.

SEALING • For enhanced protection of the concrete surface, it is recommended that the surface be sealed with *A-Z Super Sealer*, *A-Z Ultra Sealer*, *A-Z Mega Sealer*, or *ElastoCrete 212*. Refer to the relevant CCC technical data sheet for application instructions.

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

STORAGE • Keep material covered to prevent exposure to moisture. Store in a dry area.

SAFETY PRECAUTIONS • KEEP OUT OF REACH OF CHILDREN. DO NOT TAKE INTERNALLY. Irritating to eyes and skin. Use in adequate ventilation and do not breath dust. Use neoprene gloves 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 • 10-25 kg bags and pails per concrete mix design and customer request.

Creative Concrete Concepts

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