

**Exposed Aggregate Dry Shake**

**DESCRIPTION** • *PaveCrete 700* is a ready-to-use, colored powder dry mix composed of cement, silica sand, admixtures, and decorative aggregates. *PaveCrete 700* is applied by the dry shake method over freshly poured concrete surfaces, the aggregates are then exposed by washing and/or acid etching to produce a light exposed aggregate surface or "sandcrete" finish. A variety of aggregates are available, such as crushed marble, colored glass, silica or granite, producing a highly decorative yet durable and slip-resistant surface. The aggregates may be up to 5 mm in size, but most commonly and for best results are typically no more than 3 mm in size. *PaveCrete 700* may also be mixed with water and plastered on the top surface of freshly poured concrete in a wet-on-wet application for later exposure of the aggregates, or grinding and polishing of the surface for a terrazzo finish.

**USES** • *PaveCrete 700* is used to create light texture exposed aggregate or sandcrete finishes that are attractive, abrasion resistant, and slip resistant. Due to their high skid resistance, *PaveCrete 700* is ideal for pool decks, internal pool finishes, walkways, parks, driveways, and internal spaces such as showrooms and restaurants.

**ADVANTAGES**

- ✓ Increased wear and abrasion resistance to conventional standard concrete.
- ✓ Unlimited choice of colors and aggregates.
- ✓ Produces a highly decorative finish with unique color effects.
- ✓ Provides a slip-resistant surface.
- ✓ Easy to apply and economical.
- ✓ Impermeable surface that is easy to clean.

**CONCRETE MIX** • All aggregates in the concrete sub-base 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. The base concrete should be poured and compacted in accordance with good concrete practice. Avoid the addition of calcium chloride or any admixtures containing calcium chloride. When water-reducing admixtures are required, use only super plasticizer but at the minimum possible dosage. Additionally, all aggregates in the concrete mix must be non-reactive and free of deleterious materials. Refer to CCC's recommended mix design for additional details and requirements.

**COVERAGE** • *PaveCrete 700* should be applied at the rate of 4-5 kg/m<sup>2</sup>.

**SURFACE PREPARATION** • The subgrade should be of sufficient and uniform load bearing. For slab on grade, the subgrade must be well compacted. Install a vapor barrier below the concrete where efflorescence problems may be an issue. When installing on an existing concrete slab, moisten the surface in advance of concreting, but do not cast over free standing water.

Adjacent areas and landscapes should be adequately protected from contamination from the color hardener. Adjacent concrete surfaces should be temporarily protected with plastic sheeting during application of the hardener. The working area should be closed off to all traffic and adjacent vehicles removed. When working under conditions of high winds, wind breaks or barriers should be constructed around the work area. Set aside in advance the required number of color hardener bags to cover the working area.

**APPLICATION** • It is essential that application over the entire surface is completed while sufficient moisture in the concrete is present to insure proper infusion of the powder into the surface. Therefore, it is highly recommended that required labor, materials and machinery are prepared and made available well in advance of initiating the application. Conversely, application of the powder too early when excessive amounts of moisture are present will lead to poor results.

When working under conditions of high winds, wind breaks or barriers should be constructed around the work area. The concrete should first be spread and screeded so that it completely fills all the space inside the form. Before the appearance of excess moisture, the surface should be floated using wood or magnesium floats to the desired level and flatness. **DO NOT TROWEL THE SURFACE PRIOR TO APPLICATION OF *PaveCrete 700***; troweling closes the surface, making it difficult to work the fine materials into the surface. Application of *PaveCrete 700* must begin only after excess and bleed moisture have disappeared from the surface and the floating process would not disrupt the level of the surface, but while the concrete is still plastic throughout. **DO NOT** attempt to absorb bleed water by applying the powder at an early stage. Water must not be sprinkled or otherwise added to the surface during application or finishing. The necessary moisture for the hardener must come from the concrete in order to develop a proper bond and assure adequate density of the surface.

It is recommended to divide and mark the floor into sections of known areas in order to set aside the proper amount of material to be applied to each section. *PaveCrete 700* should be applied over two

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shakes; two thirds of the material in the first application and one third in the second.

Apply the material by broadcasting over the surface at less than knee height. Do not throw material a distance more than 1 meter. The edges of the slab should be worked first since they set quicker. After each shake, the surface must be thoroughly floated in order to work the material into the surface. The surface must **NOT** be troweled between the first and final shakes. Never sprinkle or add water to the surface. After the application of the final shake, the surface should be floated and then troweled once it has hardened sufficiently. Hard troweling should be minimized and consistent finishing used to ensure uniformity of the surface. Do not over-trowel in order to minimize trowel-burn and discoloration.

**Aggregate Exposure:** Aggregates may be exposed by either sandblasting, acid washing, high-pressure water jet, or the use of *ExpoCrete 711 Concrete Surface Retarder*, depending on the aggregate size and desired exposure effect. When sandblasting is used, the topping must be allowed sufficient time to cure; a minimum of 14 days is recommended. For smaller aggregates (1-3 mm), light washing on the day of casting followed by light acid washing the next day produces the best results. Use a wet soft bristle roller to remove the paste off the surface when the concrete has hardened enough on the day of casting. On the next day, use a highly diluted acid solution to remove any residue of the paste and brighten the appearance of the aggregates. *ExpoCrete 711* may also be used to expose the aggregates. *ExpoCrete 711* is applied after the sheen has disappeared from the surface of the concrete. Allow 8 to 24 hours to cure before washing of the retarder from the top surface. Refer to the applicable CCC technical data sheet for application instructions.

**CURING** • Curing should be carried out immediately after completion of trowelling either by conventional methods or by the application of curing agents. Avoid the use of any materials that contain sodium-silicate or the use of plastic sheeting or misting techniques.

**SEALING** • For enhanced protection of the concrete surface against staining and to bring out the colors of the aggregates, it is recommended that the surface be sealed with *A-Z Super Sealer*, *A-Z Ultra Sealer*, *A-Z Mega Sealer*, *ElastoCrete 212* or equivalent. 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. Portland cement and silica based products present health hazards. Irritating to eyes and skin. Use in adequate ventilation and do not breathe dust. May cause delayed lung injury (silicosis). 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** • 25 kg paper bags.

**SUGGESTED SHORT FORM SPECIFICATIONS** • All architectural concrete surfaces designated in the plans or specifications as having a light exposed aggregate or sandcrete finish shall be treated with CREATIVE CONCRETE CONCEPTS PaveCrete 700™ installed in accordance with manufacturer technical data sheet and written instructions, at a minimum rate of [5] kg per square meter and in color [*select from CCC Standard Color Chart*] with [clear glass, colored glass, white silica, colored silica...etc.] aggregates in sizes [1-1.5 mm, 1-3 mm, or select up to 5 mm size]. The surface shall be washed and/or acid etched to expose the decorative aggregates. All finished surfaces that will not be permanently immersed in water must be sealed with CREATIVE CONCRETE CONCEPTS [A-Z Ultra Sealer™, A-Z Super Sealer™, A-Z Mega Sealer™, ElastoCrete 212™] in accordance with manufacturer technical data sheet and instructions. All products shall be manufactured by CREATIVE CONCRETE CONCEPTS, Sharjah, UAE or Amman, Jordan; info@tex-crete.com.

### Creative Concrete Concepts

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