

# PaveCrete 200

## Premium Color Hardener



**DESCRIPTION** • *PaveCrete 200* is a ready-to-use, colored powdered floor hardener designed for application by the dry shake method over freshly poured concrete surfaces on exterior hardscapes or interior floors. Formulated with graded Silica aggregates, admixtures, and the finest UV resistant, non-fading pigments, *PaveCrete 200* is a surface coloring and hardening treatment to concrete surfaces that produces dense colored surfaces that are highly abrasion resistant and long-wearing. *PaveCrete 200* is the ideal treatment for concrete to produce textured surfaces simulating the look of natural stone and tile. Treatment of freshly poured concrete surfaces with *PaveCrete 200* facilitates the finishing and trowelling process to produce smooth and dense attractive colored concrete surfaces. *PaveCrete 200* can also be plastered on freshly poured vertical concrete surfaces such as curbs and risers, in order to match the color of adjacent concrete floors.

**USES** • *PaveCrete 200* may be troweled into freshly placed concrete to produce smooth and colored surfaces that are resistant to weathering and normal abrasion. When used with *PaveCrete 300 Antique Release Agent* or *PaveCrete 400 Liquid Release Agent* and texturing mats, a rich appearance simulating natural stone, brick, and tile is produced. *PaveCrete 200* may also be used to produce a variety of finishes on colored concrete surfaces such as broomed, swirl, rough floated, or lightly sandblasted. *ChemStain* may also be applied to the color-hardened surface after minimum 14 days of curing to produce a richly colored and antiqued surface. *PaveCrete 200* is the ideal treatment for decorative concrete surfaces and for warehouses, industrial, and commercial interior concrete floors.

### ADVANTAGES

- ✓ Increased wear and abrasion resistance to conventional standard concrete.
- ✓ Facilitates finishing and trowelling of concrete surfaces to a dense and smooth surface.
- ✓ Increased wear and abrasion resistance to conventional standard concrete.
- ✓ Provides a high density surface that is oil and grease resistant, dust reducing and easy to clean and maintain.
- ✓ Exterior and Interior applications.
- ✓ Ready and easy to use.
- ✓ Available in 40 standard colors.

**PHYSICAL PROPERTIES** • Physical properties of aggregates:

Aggregate hardness on the Mohr scale	7
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Size of aggregates	0.3-1 mm
Shape of aggregates	Round
Abrasion resistance (DIN EN 12808-2) PaveCrete 200/101 Regular Concrete	250 mm <sup>3</sup> 854 mm <sup>3</sup>
Minimum Abrasion Δ over Regular Concrete	330%
Scratch Resistance, Erichsen Pen	30 N
Density	1,700 kg/m <sup>3</sup>

**LIMITATIONS** • Not suitable for application over self-leveling overlays and other cementitious toppings. Not intended for extensive plastering over vertical concrete surfaces, only for incidental use to colored floor works on curbs and risers. Should never be used to dry free standing water on fresh concrete surfaces.

**CONCRETE MIX** • All aggregates must be clean and free of particles that may be deleterious; 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. Water-reducing admixtures (super plasticizer) should be used at the minimum dosage possible as excessive amounts could hinder the working of the hardener into the concrete surface. Additionally, all aggregates in the concrete mix must be non-reactive and free of deleterious materials. It is essential to ensure good concrete batch-to-batch uniformity in order to avoid color variations from one pour to the next.

**COVERAGE** • Coverage rate depends on the intended application and use, but at any rate *PaveCrete 200* should not be applied at less than 3.5 kg/m<sup>2</sup>; higher for more demanding applications up to 6 kg/m<sup>2</sup>. Thanks to its unique formulation, *PaveCrete 200* coverage is consistent for light and dark colors; 10 sq meters per bag is the dominant coverage rate.

**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 assure 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 and debonding of the colored layer.

The concrete should first be spread, screeded, and vibrated 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. Exterior concrete surfaces should be sloped to provide adequate drainage. **DO NOT TROWEL THE SURFACE PRIOR TO APPLICATION OF *PaveCrete 200***; troweling closes the surface, making it difficult to work the hardener into the surface. Application of *PaveCrete 200* 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 hardener 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 200* should be applied over two shakes; two thirds of the material in the first application and one third in the second. For application rates higher than 5 kg/m<sup>2</sup>, *PaveCrete 200* should be applied over three shakes, with one half of the material applied during the first shake.

Apply the material by hand broadcasting uniformly over the plastic surface of the concrete at less than knee height. Do not throw material a distance more than 1 meter or from a point above knee height in order to avoid segregation of the aggregates; construct and use bridges for wide areas.

Mechanical spreaders may also be used on large areas. 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. For more uniform coverage, the second shake should be done at 90 degrees to the first one where possible. Set aside a small amount of the hardener after the final application for touching up non-uniform areas. 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.

**Mechanical Floating/Troweling:** In case of the use of a power float/trowel, application of the hardener by the dry shake method may be carried out in a single pass once surface moisture has completely disappeared. After the surface has hardened enough to take the weight of the machine and operator, the surface may be power floated. The surface is then left to harden further before it is power troweled. Power troweling is carried out in several stages, increasing the pitch angle of the blades with each stage until the desired surface smoothness and finish are achieved. Manual troweling and floating are not necessary except in tight areas and edges where the machine might not cover the surface thoroughly.

**Application on Vertical Surfaces:** *PaveCrete 200* may be applied by plastering method over vertical surfaces such as curbs, risers, and planters in order to match the color and finish of surrounding decorative concrete floors. Once the concrete is self-supporting but is still retaining moisture, remove the form work and mix the dry *PaveCrete 200* powder with water to a plaster consistency. Immediately trowel on the paste mix on the vertical wet concrete surfaces at the minimum rate of 4.0 kg/sq meter, then texture or trowel to the desired finish once the consistent appearance is obtained. Cure and seal as with flooring surfaces.

**CURING** • Curing should be carried out immediately after the concrete has set 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. The use of curing agents is not recommended on concrete that will be later stained. Do not use water curing or curing agents when the concrete surface is textured in conjunction with *PaveCrete 300 Antique Release Agent*. Insure the compatibility of curing agents with the sealer if it will be later applied to the concrete surface.

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

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

**STORAGE & SHELF LIFE** • Keep material covered and off the floor to prevent exposure to moisture. Store in a dry area. When stored at specified conditions in original unopened packaging, shelf life is at least 6 months from date of production.

**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** • 35 kg paper bags.

**SUGGESTED SHORT FORM SPECIFICATIONS** •

For Antiqued Stamped Concrete: All architectural concrete surfaces designated in the plans or specifications as having a stamped concrete finish shall be color hardened with CREATIVE CONCRETE CONCEPTS PaveCrete 200™ Premium Color Hardener installed in accordance with manufacturer technical data sheet and written instructions, at a minimum rate of [ ] kg per square meter and in color [select from CCC Standard Color Chart / as per the finishes schedule]. The concrete surface shall be antiqued with CREATIVE CONCRETE CONCEPTS PaveCrete 300™ Antique Release Agent in color [select from CCC Standard Color Chart / as per the finishes schedule] installed in accordance with manufacturer technical data sheet and written instructions. The surface shall be imprinted with the approved CCC texturing tool as per the finishes schedule. All imprinted surfaces 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.

For Color Hardened Concrete: All architectural concrete surfaces designated in the plans or specifications as having a colored and hardened concrete finish shall be color hardened with CREATIVE CONCRETE CONCEPTS PaveCrete 200™ Premium Color Hardener installed in accordance with manufacturer technical data sheet and written instructions, at a minimum rate of [ ] kg per square meter and in color [select from CCC Standard Color Chart / as per the finishes schedule]. All colored surfaces 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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