

Colored Concrete

Concrete is made with naturally occurring materials. Similar to stone, concrete — colored or not — has variation. Prepare for variation from the beginning by planning ahead. Patterns from stamping, brooming or exposed aggregate can diffuse light and minimize variations in the final product.

The final appearance is affected by many factors, such as the handling and placing procedures, forming and curing methods, surface finishes and textures, environmental conditions, and craftsmanship.

This guide is designed to highlight some of the best practices for pouring colored concrete and to inform you, our customer, about what to expect during the curing process.



COLORED CONCRETE BEST PRACTICES

**A GUIDE TO POURING
COLORED CONCRETE**



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Consistency

- **Consistency** is key when pouring colored concrete. If pouring multiple days, use the same mix.
- Concrete made from the same supplier can cure to different colors if pouring or curing takes place under different climate conditions.
- Maintain a **consistent** slump of 4" to 5" from placement to placement.
- Adding water will create variations in the **consistency** of the color.
- Do not sprinkle water on the surface or dip the finishing tools in water during the finishing operation. This will create variations in the **consistency** of the color.
- The use of burlap, plastic sheeting or fogging with water are not recommended and will likely cause discoloration.
- Water added at the job site to the mixer or concrete pump truck will cause color variations.
- Do not use calcium chloride or additives containing chlorides. These products can cause discoloration.

Placing

- Sub-grade must be uniformly graded, compacted and dampened.
- Do not place concrete if sub-grade has standing water, hard or soft spots, ice, frost or muddy areas.
- To the extent practical, all concrete placements should be performed under similar environmental conditions.
- Discharge the concrete as close as possible to the final location. Move the concrete with shovels rather than vibrators.

Finishing

- Do not sprinkle the surface with cement or powder color during finishing operations.
- Wait for bleed water or "sheen" to disappear before troweling.
- Do not wet the broom between strokes.
- Do not over trowel or start troweling late. This will cause burns and dark spots.

Curing and Sealing

- A properly applied curing compound will assist in achieving **consistent** drying and a **consistent** final color.
- Lack of proper curing can lead to shrinkage cracks, dusting and surface deterioration.
- Curing with water sprinkling, membranes, paper, sodium or fluoro silicate-type hardeners and non-approved compounds can cause discoloration. If water is used to cure, a lighter color is likely.
- Be certain to use curing, sealing, and cure-and-seal products approved for use with colored concrete and follow manufacturer's recommendations for application.
- Concrete will continue to lighten until it is fully cured. Allow the concrete to cure at least 30 days before inspecting it for color match or appearance.
- For orders larger than one load, a mock-up pour should be considered in order to establish the appearance of the concrete work and verify the acceptability of the proposed materials and methods. Allow 30 days for the concrete to cure before inspecting the mock-up.

Efflorescence

- Control efflorescence by mixing with a low water/cement ratio, using a curing compound and designing a well-drained sub-grade.
- Seal concrete against water penetration and leaks.
- Always keep de-icing salts away from concrete that has not fully cured and has yet to be sealed. A better practice is to use sand and never de-icing salts, as salts will damage most all concrete.
- Efflorescence can be removed with a water wash and a stiff bristle broom if treated early. If not, it transforms to calcium carbonate, which is removed with dilute acid wash affecting the surface appearance.



Remember, consistency, planning, proper finishing and curing play a significant role in producing a quality finished product.