

Any Color, as Long as it's Green

With its ability to manage surface water runoff, the construction industry has known that pervious concrete is "green." It is now discovering that pervious concrete can also be tan, red, black, or brown. That's

added to the concrete.

Paris explains that the low water/cement ratio in pervious concrete mixtures can give colored pervious a darker or more intense shade than ordinary concrete mixtures

adding water at the jobsite, it may be necessary to violate this precept to maintain pervious concrete at a workable consistency.

With a dry mixture and large surface area, pervious concrete is prone to inconsistent evaporation because of workmanship, sunlight, and wind. When any of these scenarios occurs, even small changes in the water/cement ratio will alter pavement appearance.

To cure pervious concrete, the National Ready Mixed Concrete Association recommends misting and covering it with plastic sheets within 20 minutes of placement. Contact between the concrete and plastic can cause uneven concrete coloration. If this is not

acceptable, consider tenting the pavement so the plastic does not come in direct contact with the concrete.

The appearance of pervious concrete, whether colored or not, can change over time.

Pores can become filled with silt and other particulates and may require periodic vacuuming or power washing. Traffic patterns also can erode cement paste from the pavement surface. Even the best pervious concrete pavements are prone to raveling, the loss of aggregate.

With all these potential concerns, it's no surprise that pervious pavement does not always look "pretty." This should be discussed with customers before the start of a project to make sure expectations are realistic.

Still, pervious concrete can be attractive when integrated into an overall project design. As more concrete contractors gain experience with the material, pervious concrete is gaining acceptance in visually sensitive projects where color is an important element of the hardscape design.

— Michael Chusid

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The American Society of Concrete Contractors' Decorative Concrete Council gave an award for the colored pervious concrete in Cottonwood Creek Park in Encinitas, Calif.

because pervious concrete can be integrally colored to match the surrounding landscape or to provide a complementary or contrasting hue to make pavement stand out visually.

Pervious concrete can be tinted with the same integral pigments used to color other concrete products. The dry mixtures used for pervious concrete require special attention to assure uniform colorant dispersion, cautions Nick Paris, vice president of colorant producer **Davis Colors**.

While you can get satisfactory results with concentrated powder pigments, Paris suggests considering liquid colors because they disperse more readily in dry mixtures. The water in liquid colors and any water added by an automatic dosing system must be subtracted from the amount of batch water

with similar pigment dosages. The colors of the cement, supplementary cementitious materials, and aggregates also influence the shade.

Color also may appear darker in pervious pavement because its rough texture reduces the glare associated with conventional concrete pavement. Paris advises making final color selections based upon viewing fully cured samples made with the materials and workmanship to be used in the field.

Carefully adding water

Maintaining consistency from batch-to-batch (and even from the beginning of a batch placement to its end) can be challenging, whether it is colored or uncolored. While a cardinal rule of conventional colored concrete is to avoid



Whether it's colored or not, pervious concrete acts as a natural filter to keep pollutants from contaminating our water sources.

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