

SpaceCrete's "3D-Admix" Awarded Most Innovative Product at the 2023 World of Concrete

Multinational Giants Vying for Most Innovative Product in Contest at 2023 WOC Won by the Inventor of 3D-Admix

FORT BRAGG, CALIFORNIA, USA, March 6, 2023 /EINPresswire.com/ -- A new concrete admixture technology, 3D-Admix, won the most votes of any concrete construction material displayed at the 2023 WOC. "It is the people's choice," says developer/engineer Michael Butler, who was demonstrating 3D-Admix, "Many experts are very skeptical. But



Michael Butler showing an inline mxer for 3D-Admix at the World of Concrete

when anyone actually sees the extreme effect firsthand, they become very impressed."

The liquid 3D-Admix is supercritically packed with an array of different water-reactive solids, so it

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Your BIM or digital model can become concrete. 3D-Admix lets you build it vertically up to a foot per minute, without building forms or spraying shotcrete. The automation possibilities are endless!"

Michael Butler

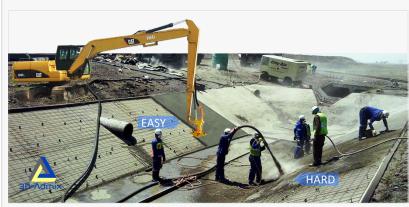
gels up when you add water to it. A little bit of 3D-Admix transforms a sample of wet portland cement slurry into an easily shapeable material, that you can build up vertically and then also vibrate back down, repeatedly.

Within a pumping line, 3D-Admix technology converts a conventional flowable concrete into a 3D-Print media, so that vertical buildup becomes very efficient. Form pressure can be greatly minimized, or forms can be eliminated altogether, saving labor, time, energy and money. 3D-Printing with concrete can go vertical many times faster, while using local materials and less cement. A

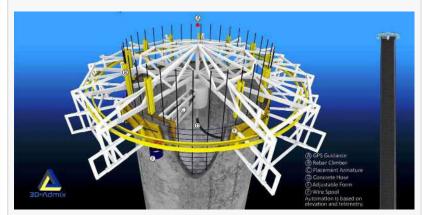
freeform vertical build as fast as a foot per minute has been demonstrated. Also, sprayed shotcrete can adhere better to an overhead surface.

Concrete quality can also really improve. Plastic shrinkage resulting from rapid drying conditions, can be eliminated entirely. Independent testing shows a radical reduction in shrinkage rate. As the modified concrete is still very sensitive to vibration, placement quality and consolidation can be assured. SpaceCrete is on the path, with its many patent applications, to realizing improved ways of building with concrete, particularly where the forming itself is the biggest cost, and now it can be replaced with digital control. "We can use the same GPS guided technologies that already move horizontally and now also go vertically," says Butler, "Not just 3D printing with conventional concrete, but very rapid slip forming - with all the rebar.

This process can extrude an elevator shaft, a wind-turbine tower, or build higher-quality disaster-resilient multi-



An easy application for SpaceCrete, omitting almost all of the labor



The rapid vertical build facilitates automated slip forming, such as for wind turbine towers.

story housing at a lower cost. Your BIM or digital model can become concrete. The practical-automation possibilities are endless!"

SpaceCrete is a self-starter, entrepreneurial endeavor operating out of a garage. "There are perverse incentives," Butler goes on "in that cement-mix companies have incentive to sell more profitable cement-rich pre-packaged mixes for 3D-printing, but then 100% of material must be transshipped from a central location.

The much greener option is to use just a small dose of 3D-Admix – allowing controlled 3D printing with locally delivered concrete, and so replacing a lot of packaged cement with native aggregates – which are about 50x less carbon intensive. We are looking for industry leaders who are ready to see that this lower-cost, improved and greener version is the inevitable future of vertical concrete." The timing could not be better, as the world turns toward greener building, and new infrastructure projects are planned all across the nation.

Civil Engineer Michael Butler has been researching and testing new ways to build with concrete for over a decade, out of an obsession to make it faster, easier and more affordable. To learn more visit SpaceCrete.com.

Michael Butler SpaceCrete email us here

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