

Utilization of Recycled Materials for High Quality Cements and Products

By: James K. Hicks, P. E, Mike Riley, Glenn Schumacher, Raj Patel and Paul Sampson

CERATECH, Inc. 3501 Brehms Lane, Suite D, Baltimore, MD, 21213

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ABSTRACT

Worldwide, the production of Portland cement alone accounts for 6 - 8% of all human generated CO₂ greenhouse gas.

CERATECH's products leave virtually no "carbon footprint. CERATECH's binder technology eliminates approximately 1 ton of CO₂ emitted into the atmosphere per ton of material produced.

CERATECH, a designer, manufacturer and supplier of high-performance construction materials based in Baltimore has developed "extreme green cement technology" engineered specifically for conventional walls and concrete block masonry, new construction and repair projects.

CERATECH's products are comprised of up to 95% green sustainable industrial waste stream materials, including fly ash. They are manufactured via a simple low energy, powder blending process. The system incorporates a block, mortar, grout, structural and parging materials that incorporate CERATECH's high-strength green cement technology. The system aims to produce structures with superior strengths, compared to traditional products made from native raw materials, and in a condensed time frame.

This green cement technology possesses excellent performance characteristics, including high early strengths and 28-day strengths near 10,000 psi. Moreover, they can be effectively placed in ambient temperatures ranging from 30 F to 120 F without the need to follow traditional post-hydration curing practices.

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