PRODUCING NATURAL BIO-CEMENT BY USING BACTERIA IN THE UNITED STATES OF AMERICA

The bioMASON start-up bitechnology company *grows* durable bricks comparable in strength to calcite-cemented sandstone by using bacteria, biomass, aggregate, nutrients and minerals, producing a natural bio-cement.

This new natural bio-cement and the bioMASON start-up company were created in 2012 by Ginger Krieg Dosier in North Carolina (USA).

The innovative process to produce bricks emerged from a study of the coral structure, a cementitious material created by nature in ambient sea temperatures with low energy and material inputs. The bioMASON brick is an example of a product reached following the biomimetic methodologies that find ecological solutions to human needs by emulating natural processes.

As underlined in the bioMASON website the new process is an alternative to traditional clay brick manufacturing, which is responsible for the emission of large amounts of CO2. The cement manufacture is among the most carbon and polluting industries. Both concrete and clay manufacturing include energy intensive processes for raw material extraction, transportation, and fuel sources for heating kilns. An estimated 1.23 trillion bricks are manufactured every year, resulting in approximately 800 million tons of carbon emissions, due to the fossil fuels required in the firing process. The bioMASON innovative process to create bricks that are strong enough for use in all regular commercial applications, is a better solution for reducing C02 emissions generated by global masonry manufacturing.

bioMASON employs bacteria to *grow* a durable cement in ambient temperatures, producing building materials without emitting greenhouse gases and without the depletion of non-renewable resources. The nutrients and minerals required are globally abundant renewable resources and may be also extracted from industrial waste streams, making this mode of brick production even more ecologically beneficial. The process takes less than three days in ambient temperatures.

bioMASON
building with nature

The pilot plant of bioMASON still produces a limited number of bricks and plans of this company are the search for interested investors, to enter the building materials market, also reducing production costs.

Meanwhile, Ginger Krieg Dosier's innovation has been recognized by important pinternational awards and by the specialized press for its great contribution in finding new solutions to create sustainable building materials and a better world.

To know more

bioMASON website

bioMASON in Facebook

bioMASON Press Releases

Article in wired.co.uk

Article in bustler.net

Article in ceramics.org

Article in mnn.com

Article in circulatenews.org

Article in inmatteria.com

Article in cienciaycemento.com

Article in arquiladrillobiomason.blogspot

Article in veoverde.com

Article in bizjournaks.com

Article in bloh.is-arquitectura.es

Article in edition.cnn.com