Kite Bricks prototype proposes smarter building approach (w/ Video)

July 8 2014, by Nancy Owano

A company called Kite Bricks is out to shake things up in the way buildings, bridges and sidewalks are built. The company proposes a product whereby structures, "from Africa to Manhattan," in company parlance, will be highly insulated, strong, and much cheaper to build. So what is the product? The "Smart Brick" is constructed of high-strength concrete. As shown in the company's promotional video, the

distinguishing characteristic of this brick is in design, where the bricks easily join together with open internal spaces for insulation and infrastructure elements to be run through the bricks. A number of technology sites described the bricks as Lego-like. The company's Ronnie Zohar told Wired.co.uk that making the bricks Lego-like was not top of mind; the focus was always on insulation and strength. The fact that the blocks can connect together so easily was secondary.

Nonetheless, Victoria Solon of Wired.co.uk did a good job in explaining the Kite Brick product in terms of how exactly they do fit together: They come in a variety of forms for different purposes and easily connect together, "with rows of knobs along the top of bricks that slot into voids along the bottom of other bricks. A special adhesive—which works like a super-strong double-sided sticky tape, a bit like 3M VHB—dispenses with the need for cement." She added that steel bars can be slotted through dedicated channels in the bricks to provide the same support as traditionally reinforced concrete. The open internal spaces are for insulation, making them need less energy for heating and cooling.

The blocks have patented removable faces; the bricks arrive in proper sizes, number and finishes. This carries a cost benefit of minimizing labor and time; the bricks come complete and their attachment does not require mortar or leveling; the approach is amenable for building multi-story structures with ease; no cranes are required; for taller structures, an elevator on site to take up the bricks is enough. Another cost-saving advantage involves energy by redirecting heat in the summer and trapping it in the winter. All in all, Kite Bricks thinks it has a quite special solution. "Real alternatives to the Smart Brick do not exist," said the company web site. "Most blocks are 'dumb' in that they simply provide a structural scaffolding onto or through which 'important elements are decorated—just as was done 100 years ago. Some 'advanced" blocks may include insulation. The Smart Brick offers it all: high thermal control, full passage of pipes, wires, cables and the like,

finishes for both indoors and outdoors, extraordinary tensile strength, ease of construction, safety of materials, and total application throughout a structure—floors, ceilings, and walls. The Smart Brick is the solution for building from Africa to Manhattan."

Wired.co.uk reported that so far, there's only a prototype and IP protection. He said in Wired.co.uk that a key focus has been to make it as simple as possible to build using the bricks. "I'd like people in Africa and other places in the world to be able to build with our brick and get a thermally-insulated house using the same money they would have spent on tin."

More information: kitebricks.com/

© 2014 Tech Xplore

Citation: Kite Bricks prototype proposes smarter building approach (w/ Video) (2014, July 8) retrieved 23 April 2024 from
https://techxplore.com/news/2014-07-kite-bricks-prototype-smarter-approach.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.