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METHOD OF PRODUCING A LIGHTWEIGHT GEOPOLYMER BRICK AND BLOCK USING A LOW-ALUMINO-POZZOLAN

MORE INFORMATION

MEGA-TREND

- Chemicals and Materials
- Renewable

TECHNOLOGY READINESS LEVEL (TRL)

- TRL 6

PATENT/ GRANTED NUMBER

- PI 2018002588

TECHNOLOGY OVERVIEW

The present invention relates to a method of producing a lightweight geopolymer brick and block using a low-alumino-pozzolan. The method can be characterized by the steps of an injecting a low-alumina based pozzolan with an alumina to produce pozzolanic material, activating the pozzolanic material with an alkaline activator for initiating a geopolimerization process to form a geopolymer paste, mixing the geopolymer paste with aggregate and sand to form cluster mixture, removing bubbles from the cluster mixture, and heating the mixture at an operational temperature to produce geopolymer lightweight brick and block. By using this method, lightweight

geopolymer brick and block can be manufactured using 100% industrial waste and by-product.

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