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(57) Abstract :
ABSTRACT: Title: A Composition for Preparing Foamed Ceramic Tile Dust-Based Alkali-Activated Masonry Blocks and Method Thereof The present disclosure proposes a composition that uses industrial wastes to prepare masonry blocks for constructing buildings, thereby reducing energy consumption for the constructed buildings. At first, a fly ash, a ceramic tile dust (CTD) and a crusher dust (CD) are mixed for obtaining a consistent dry mix. Next, an alkaline solution is added to the consistent dry mixture and mixed in a rotatory mixture machine for achieving a homogenous mix. Next, the homogenous mixture transferred to one or more moulds for casting, thereby preparing a control alkali-activated mixture without foam. Next, protein-based pre-foam is injected to the prepared control alkali-activated mixture using foam pressure injector for lowering the density. Later, the foamed alkali-activated mixture is transferred into moulds for moulding. Finally, the each mould is separated upon formation of the alkali-activated masonry block.

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