

An attempt to reduce materials cost of autoclaved aerated concrete production

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To reduce the materials cost of autoclaved aerated concrete (AAC) production, these two types of solid waste could theoretically be used as the aerating agent and silica source, respectively.

Municipal [solid waste](#) incineration bottom ash (MSWI bottom ash) contains a noticeable amount of metallic aluminum, and circulating fluidized bed combustion (CFBC) [fly ash](#) is rich in active SiO₂. The two types of solid wastes can thus be theoretically used as an aerating agent and silica source for the production of autoclaved aerated concrete (AAC), respectively.

This work aims to evaluate the feasibility of producing AAC combining MSWI bottom ash with CFBC fly ash. It was found that AAC with satisfactory properties can be successfully produced only by MSWI bottom ash, CFBC fly ash, cement and lime at an appropriate proportion, even without dihydrate gypsum and [aluminum powder](#).

This proposed method will remarkably lower the cost of AAC production.

More information: Zhijuan Wang et al, An Attempt to Reduce Materials Cost of Autoclaved Aerated Concrete Production, *The Open Civil Engineering Journal* (2016). [DOI: 10.2174/1874149501610010323](https://doi.org/10.2174/1874149501610010323)

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