



Investigation the Usability of Sludge as a Brick Material

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ABSTRACT

In the world, the annual sludge (dewatered) production from the waste water treatment plants is very high but this sludge cannot use for any industry or any other purposes. So this sludge amount is accumulating in lagoons without any solution. Utilization of sludge as an addition to construction bricks Is a win-win strategy because it not only converts the wastes into useful materials but it also alleviates the disposal problems. Flocculants and some polymers are used when treat waste water. These chemicals are reducing the cohesiveness of sludge and act as binders. By using this properties sludge can be introduce for concrete bricks in limited amount. In the world very high demand for the concrete bricks but very limited raw material in the world for this industry. If can be introduce alternatives for this materials that is much saving for future construction works.

In this study will be introduced, the suitable conditions of using dried Sludge in manufacturing of bricks under the standard levels with newly developed methods.

This work has demonstrated the amount of sludge and rice husk ash that can be used in the cement brick with standard water absorption and compressive strength. The proportion of sludge and proportion of RHA are the two Key factors affecting the quality of brick. In all, the recommended proportion of sludge in brick Is 20%, and RHA proportion is 5%.

Key Words: Sludge, Rice husk ash, Brick.