

An Overview of Sludge Utilization into Fired Clay Brick

Authors : Aeslina Binti Abdul Kadir, Ahmad Shayuti Bin Abdul Rahim

Abstract : Brick is one of the most common masonry units used as building material. Due to the demand, different types of waste have been investigated to be incorporated into the bricks. Many types of sludge have been incorporated in fired clay brick for example marble sludge, stone sludge, water sludge, sewage sludge, and ceramic sludge. The utilization of these waste materials in fired clay bricks usually has positive effects on the properties such as lightweight bricks with improved shrinkage, porosity, and strength. This paper reviews on utilization of different types of sludge wastes into fired clay bricks. Previous investigations have demonstrated positive effects on the physical and mechanical properties as well as less impact towards the environment. Thus, the utilizations of sludge waste could produce a good quality of brick and could be one of alternative disposal methods for the sludge wastes.

Keywords : fired clay brick, sludge waste, compressive strength, shrinkage, water absorption

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