DEVELOPMENT AND STUDY OF BEHAVIOUR OF PAPERCRETE CONCRETE

PROJECT REPORT

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ABSTRACT

Papercrete is an incredible building material that is lightweight, amazingly insulate, and low cost. Ordinary Portland cement is the most widely used, though costly and energy intensive ingredient used in the production of concrete mixes. Unfortunately production of cement involves emissions of large amounts of carbon dioxide in to the atmosphere, a major contributor for green house effect and global warming. Hence, it is inevitable to either to search for another material or partly replace it by an alternate material. Any such material which can be used as an alternate or as a supplementary to Portland cement should lead to a sustainable development. Our project is aimed to find out an alternative form of construction for low income house schemes for the Society. Although 45% of discarded paper is recycled annually, 55% is thrown away or goes into the landfill. Therefore, efforts have been made to utilize the waste paper into concrete and form "Papercrete". Papercrete is a construction material which consists of paper sludge, fine aggregates and Portland cement. It is an environmental friendly material due to the significant recycling content of waste paper. In this investigation an attempt has been made to develop Papercrete mixes using waste paper along with locally available materials and studied some of the few hardened properties in the laboratory. Finally cost comparison of papercrete concrete blocks and clay bricks can also be reported.