

EXPERIMENTAL INVESTIGATION ON REPLACEMENT OF PLASTIC IN BUILDING BLOCKS

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Abstract— This experimental investigation is based on replacement of traditional building blocks by custom shaped and molded plastic blocks, which are made from the shredded waste plastics thereby, make use of the waste plastic in an effective manner.

Keywords— waste plastic, custom Mould, plastic blocks

I.

INTRODUCTION

There has been problem of rising cost of building in the developing countries for some time. this is especially in rural areas where the local income has often increased at the same pace as the national average and this has been a source of concern to governments. The population now resides in the urban area meanwhile the overwhelming amount of plastic crowding in land fills to combat these issues the concept of plastic building blocks is introduced by this type of construction people can easily build their homes on their own. The concept of plastic building blocks is to recycle the plastics and convert it into building blocks. This concept work with local municipalities for the source of plastics. By these building blocks people can even build their emergency shelters, community halls, classrooms. The designed blocks fit together like LEGOs. These blocks put an additive that makes the product fire resistant. The blocks take more than 500 years to degrade. The building blocks can be detached whenever needed. These building blocks put an additive that makes the product fire resistant and since the blocks are made of plastic, they'll also resist the earthquake. It also gives a cheaper mode of construction. Each blocks help rid of the world discarded plastic and is cheaper and more fuel efficient to manufacture than conventional bricks. it's also less energy intensive than recycling the plastic into other forms such as in building blocks, bricks etc.,

II.

MATERIALS USED

A. Tin container

Most of the samples are produced using an open cuboid shaped tin container of dimension 300x300x600mm.

B. Shredded plastics

These are the waste plastics which are shredded into small sized plastics which is available in municipal office.

C. River sand



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