ABSTRACT

The concept of addition of natural fibres with cement which is capable for sustainable development is characterized by application of natural wastes to strengthen the concrete and to reduce pollution of the environment. A presently large amount of Natural fibres such as Coir fibre and Rice straw fibre is added with concrete as the ratio of 0.2 % & 0.4 % respectively. Under stress and bending pressures, these concrete formulations gain final strengths of 12 and 25 MPa . The use of coconut fibres is much stronger other fibre in concrete. This research work describes the feasibility of using the fibres in the process of strengthening the concrete. Fibre can be used asfiller and helps to reduce the total voids content in concrete. The M20 grade mix is used . After iterative trial mixes the water/cement ratio (w/c) was selected as 0.50. Natural fibre mixtures produced, tested and compared in terms ofcompressive , flexural and split tensile strength with the conventional concrete for 7-28 days. It is found that, 0.2 % of coir fibre are better in strength in comparable to the conventional concrete.