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A Study on Mechanical Properties of Concrete using Hair IBRE Reinforced Concrete

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Abstract : Fibre reinforced concrete offers a practical and economical method for Over Coming micro-cracks and similar type of deficiencies Fibres are usually use in concrete to control plastic shrinkage and dry shrinkage cracking and also to lower the permeability of concrete. It also reduces greater impact, abrasions and shatter resistances in concrete. It is an effective method of construction of light weight seismic resistant structures. Since concrete is weak in tension hence some measures must be adopted to overcome this deficiency. Human hair is strong in tension hence it can be used. As a fibre reinforcement Material. Hair Fibre (HF), an alternate non-degradable matter, is available in abundance and at a very cheap cost. It also creates environmental problem for its decompositions. Present studies has been undertaken to study the effect of human hair on plain cement concrete on the basis of compressive, crushing, flexural strength and cracking control to economize concrete and to reduce environmental problems. For each combination of proportions of concrete three cubes are tested for their mechanical properties. By testing we found that there is an increment in the various properties and strength of concrete by the addition of human hair as fibre reinforcement.

Key Words : Machines, Partial Replacement of cement, Sand, Water, Human hair fibre, Reinforced Concrete.

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