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Past Investigations on Mechanical and Durability Properties of Natural Hair Fibre Reinforced Concrete

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Abstract: The construction industry is the largest manufacturing industry, which produces concrete and other related materials for construction of infrastructure around the world, after the food production industry. This industry requires a lot of natural resources like aggregates, limestone etc. to produce finished product such as concrete and cement. These natural resources are limited and have to deplete one day, so alternate to these resources are required. On the other hand, this industry produces a large amount of waste material that creates environmental pollution. In the present era, to recycle waste and to reduce environmental pollution is the main objectives of sustainable development. Sustainable development in structural materials is currently getting attention all around the world. Solid waste, building and demolition waste, natural resources, and their reuse are the most obvious strategies for achieving sustainability in the construction industry. Many researchers are working on new techniques and thinking for innovation in the field of concrete technology by utilizing the waste material in concrete. As a fiber reinforcement material, Human Hair Fiber (HHF), an alternate non-degradable matter, is available in abundance and at a very cheap cost. In this review of literature paper presents the quantitative analysis of HHF as natural fibers in cement concrete.

Keywords: Human Hair Fibre, Cement composites, Strength properties, Mechanical properties, Durability properties.

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