

Experimental Analysis of Magnetic Water Concrete

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Abstract: Rapid growth of world population and widespread urbanization has remarkably increased the development of the construction industry which caused a huge demand for sand and gravels. Environmental problems occur when the rate of extraction of sand, gravels, and other materials exceeds the rate of generation of natural resources; therefore, an alternative source is essential to replace the materials used in concrete. Now-a-days, electronic products have become an integral part of daily life which provides more comfort, security, and ease of exchange of information.

Water also causes major issues because it is highly complex to handle and often contains highly toxic chemicals such as lead, cadmium, mercury, beryllium, brominated flame retardants (BFRs), polyvinyl chloride (PVC), and phosphorus compounds. Hence, Magnetic Water can be incorporated in concrete to make a sustainable environment. This project also provides a detailed literature review on the behaviour of concrete with incorporation of Magnetic Water concrete.

In this project Magnetic Water is used, the research is carried out by using M20 grade concrete with replacement of 2.5%, 5%, 7.5%, 10% and is carried out to determine the optimum percentage of replacement at which maximum $C S$, $F S$ is achieved, the properties of the material are analyzed.

Keywords: Coarse aggregate, Fine aggregate, E-waste, Compressive strength, Split tensile strength and flexural strength

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