

FEASIBILITY STUDY OF GREY WATER FOR MIXING CEMENT AND MORTAR

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ABSTRACT

In India fresh and potable water is becoming scarce. Water is an integral part of all kinds of development. Construction industry is among the most water demanding industries. In order to cope up with the water demand of construction industry, the feasibility of grey water for mixing cement and mortar is assessed in this paper. In this study, two different equalized grey water samples were taken for bio-chemical analysis. Their qualities were compared with the quality requirements intended for mixing water. Both the grey water samples and Tap Water (TW) supplied by the municipal corporation were used for mixing cement and mortar. Standard consistency, initial and final setting times, soundness and compressive strengths of cement were determined by using both TW and GW for mixing. Results were used for comparison purpose. In the end, the elemental reports are derived which justifies the usage of grey water as mixing cement and mortar.

KEYWORDS: Cement, Grey Water, Mixing Water, Mortar, Tap Water