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# An Experimental Investigation on Properties of Concrete by Partial Replacement of Cement with Dolomite Powder by using Abaca Fibre

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**Abstract:** *With the increased demand for cement around the world, there is a strong need to find alternatives to cement in concrete. The introduction of a new alternative reduces CO2, a key greenhouse gas. Scientists are conducting research all over the world in order to uncover various material possibilities. River sand is extracted from riverbeds and utilized to build homes and enormous infrastructure to suit population expansion needs. Globalization and modern technology, which are required to fulfill the needs of the global economy both domestically and globally, have become a major concern in the preservation of river sand, which is utilized as a fine aggregate in concrete production. A small trial is carried out in this study to adjust the characteristics of concrete by partially replacing cement with dolomite powder. In this study a small trial is done to modify the properties of concrete by partial replacement of cement with dolomite powder with different percentages 0%,6%,12%,18% and fine aggregate with abaca fiber is varied different percentages of 0%,0.25%,0.5%,1% Different tests are done to determine Compressive and split tensile strength of concrete. All the specimens are used for 28,56 &90 days and tested for compressive and split tensile strength.*

**Keywords:** Dolomite powder, Abaca fiber, compressive and split tensile strength

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