

OPTIMUM REPLACEMENT OF NATURAL SAND WITH ARTIFICIAL SAND IN CONCRETE

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ABSTRACT

This paper Present the experimental study of optimum replacement of natural sand with artificial sand in concrete Concrete is a mix proportion of cement, sand and aggregate. The strength of aggregate will affect on the strength of concrete. Nowadays we are facing a problem due to scarcity of natural sand. Hence it is necessary to find suitable substitute for natural sand. The artificial sand is one of the suitable substitutes to natural sand. Artificial sand is produced from quires stone crusher. Which is specially prepared so as to get smooth textured, well graded particles. Artificial sand is cheap and easily available in local areas. For the purpose of experimentation concrete mixes are design for M20, M25, M30, M35 and M40 grades by 0 to 100 % replacement with increment of 20 % and in critical zone the increment is of 5% for Compressive, tensile and flexural strength.

KEYWORDS: Natural Sand, Artificial Sand, Concrete Mix, Compressive Strength, Split Tensile Strength, Flexural Strength