

CHARACTERISTICS STRENGTH OF RECYCLED AGGREGATE USED IN CONCRETE

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Abstract

Recycled Aggregates used in construction investigations were taken up to study in detail the workability and strength characteristic of new concrete made with Recycled Aggregates consisting of 0 to 50% replacing Natural Aggregate for three grade of concrete M-20, M-30 & M-40, aimed to obtain design information regarding the vital properties of Recycled Aggregate concrete. The results are compared with various percentages of Recycled Aggregate. The concrete grade M-20 (1:1.92:3.73), M-30 (1:1.52:2.95) & M-40 (1:0.90:2.83) has been used for water-cement ratio 0.55, 0.45 & 0.37 respectively. Cement use is Portland Pozzolana Cement conforming to IS-1489 (Part-1)-1991. The Recycled Aggregates are produced by crushing old and dilapidated concrete blocks and demolished structures.

Keywords : Recycled Aggregates, Natural Aggregates, Natural Sands, Cement(PPC).