

# **CONCRETE FOR SUSTAINABLE CONSTRUCTION**

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## **ABSTRACT**

Recycled concrete aggregate (RCA) are comprised of crushed, graded inorganic particles processed from the material that have been used in the constructions and demolition debris. The use of RCA in concrete opens a whole new range of possibilities in the reuse of materials in the construction industry. The investigation was carried out using workability test, compressive test. There were total 20 batches of concrete mixes consists of 5% increment of RCA placement from 20% to 40% incorporated with fly ash (5% to 20% increment of 5%) for M20 and M30 grade each. The workability of concrete considerably remains the same as the amount of RCA. This was evaluated through standard slump test. For compressive strength characteristics the result showed that a invariable decrease in compressive strength as the percentage of RCA used in the specimen increased. Finally the concrete made with recycled concrete aggregate incorporated with fly ash is found to be suitable for normal strength concrete and lower grade concrete.

**KEYWORDS** Recycled Concrete Aggregate, Recycled Aggregate Concrete, Flyash, Sustainable Construction.