

# Replacement of Coarse and Fine Aggregate by Steel Slag in Concrete

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**Abstract:** *This study investigates the feasibility of using steel slag as a replacement for fine aggregate in M30 concrete, addressing the pressing need to mitigate environmental impact in construction materials. Through experimental analysis, including compressive, flexural, and split tensile strength tests, the study compares the performance of high volume steel slag replacement concrete with conventional concrete. Results indicate that replacing up to 25% of natural aggregates with steel slag aggregates by volume poses no harm to concrete properties, suggesting a promising avenue for sustainable construction practices without compromising strength and durability.*

**Keywords:** Brick, Sewage Sludge, Waste Recycling, Sustainable Construction, Environmental Impact