

## **An Experimental Work on Utilization of Sisal Fibre and Crushed Tile in Concrete**

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### **ABSTRACT**

In accordance with conservation efforts, this research focuses on ceramic tile waste as partial coarse aggregates replacement for concrete production, prevention of environmental pollution with considering the elements of sustainable and cost-saving construction projects, especially material usage. It provides same quality as that of a normal aggregate made of stones. In this project coarse aggregate is replaced by waste ceramic tile along with addition of sisal fibre. Sisal fibre is natural fibre and it is renewable, cheap, and easily available. It has also exhibited good tensile strength and can significantly improve the performance of concrete. The coarse aggregate is replaced with 20%, 30 % and 40% by waste ceramic tile and sisal fibre were added in the mix at percentage of 1.0% by weight of cement. The design Mix used for the project is M30 grade with W/C Ratio 0.45.

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