

ABSTRACT

Tyre rubber is the significant environmental problems worldwide. With the increase in the automobile production, large amounts of waste tyre need to be disposed. Due the rapid depletion of available sites for waste disposal, many countries banned the disposal of waste tyre rubber in landfills. Research had been in progress for long time to find alternatives to the waste tyre disposal. Among these alternatives is the recycling of waste-tyre rubber. Recycled waste tyre rubber is a most widely used method. Recycle wasted Tyre Rubber is a promising material in the construction industry due to its light weight, elasticity energy absorption, sound and heat insulating properties. This project aims to develop and evaluate the performance of concrete made with crumb rubber aggregate with the effect of fibers. Fine aggregates were partially replaced by crumb rubber aggregates with the addition of steel fibers are to be examined. Ordinary Portland Cement is used. To ensure the properties of cement, fine aggregate, coarse aggregate and crumb rubber aggregate test were conducted. Mix design is formulated based on the properties and its requirements. Experimental investigations are to be done by using M20 mix concrete specimen with mixes by partially replacing of fine aggregates at different percentages by weight 5%, 10%, 15%, and 20%. Steel fibers volume fraction was kept constant at 1% and compared with controlled concrete specimens.