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Experimental Study on Replacing Waste Rubber as Coarse Aggregate

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Abstract:The disposal of used tires is a major environmental problem throughout the world which causes environmental hazards. Flap rubber is a waste material that is ideal for use in concrete applications. The aim of this study is achieved to use of rubber waste as partial replacement of coarse aggregate to produce rubberize concrete in M20 mix. Different partial replacements of flap rubber (10, 20,30 and 40%) by volume of coarse aggregate are cast and test for compressive strength, flexural strength and split tensile strength. The results showed that there is a reduction in all type of strength for flap rubber mixture, but slump values increase as the flap rubber content increase from 0% to 20%. Meaning that flap rubber mixture is more workable compare to normal concrete and also it is useful in making light weight concrete. It is recommended to use the rubberized concrete for non-structural applications and structural applications.

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