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Experimental Investigation of Steel Fibre Reinforced Self Compacting Concrete using ECOSAND

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Abstract: *The project mainly aims at studying the mechanical and durability characteristics of the self-compacting steel fibre reinforced concrete with recycled aggregate as coarse aggregate and ecosand as fine aggregate replacement by conducting compressive strength test, consistency test, split tensile strength test, flexural strength test, water absorption test. The project also deals with the comparison of properties of the proposed self-compacting concrete with mentioned replacements with that of existing conventional concrete. For this experiment, M40 grade concrete is used and steel fibre is incorporated and ecosand is used. Conventional concrete tends to present a problem with regard to adequate consolidation in thin sections or areas of congested reinforcement, which leads to a large volume of entrapped air voids and compromises the strength and durability of the concrete.*

Keywords: Self Compacting Concrete, Steel Fibers, Ecosand

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