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INFLUENCE OF DIFFERENT SHEAR CONNECTORS IN COMPOSITE SLAB

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ABSTRACT: Composite slab consist of profiled deck sheet and concrete. In recent year composite slabs are widely used in construction, which is economical. In composite slab shear connector plays the major role in bonding of sheet and concrete. In this paper an experimental program by using three dovel tailed sheet profile of 1.2x0.460x0.100m thick of slab is casted above deck sheet with two different shear connector viz. Single headed shear connector and double headed shear connector. A conventional composite slab is also casted without the shear connector. The grade of the material used for the experimental work is M25 and Fe275. From the experimental results, the performance of shear connector reducing the slip failure is determined. Also the optimum type of shear connector is designed to withstand the optimum loads and to store maximum strain energy. The Flexural failure of composite slab due to adequate shear connectors is also studied.

Keywords: Composite Slab, Profile Sheet, Shear Connectors, Deflection, Horizontal Shear

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