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(57) Abstract :

In the present work deals with addition of Flyash and Nano-silica to concrete as partial replacement to cement in 10%, 20% & 30% and dosages of 1%, 1.5% and 2% respectively by weight of cement. Based on early research M20 grade concrete has been chosen for this work. The mix design was prepared using IS: 10262-2009 Guidelines for concrete mix design proportioning. In the present work 117 numbers of specimens were casted (78 numbers of cube moulds and 39 numbers of cylinder moulds) with addition of Flyash and Nano-silica in different proportions which are tested for compressive strength and split tensile strength. Addition of Nano-silica to normal cement concrete show increase in compressive strength and decrease in splitting tensile strength. SEM (Scanning Electron Microscope) analysis evidence the direct involvement of Flyash and Nano-silica in region of specimen.

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