

EFFECT OF VARIOUS CURING METHODS AND WATER QUALITY ON THE COMPRESSIVE STRENGTH OF CONCRETE

Author Name: Abhishek Prasad
P.G. Student of MANIT Bhopal (M.P.), India

Email ID: abhishek.prasad20@gmail.com

ABSTRACT: The variation of the compressive strength of concrete due to traditional and accelerated curing methods according to the Indian standard code is 9013:1978 accompanied by two different classes of water and in this study taking two samples of water, one from sewage treated water with natural processes and comparative study will be done experimentally in this research work. For moulding and casting of concrete IS 516:1959 will be used and for accelerated curing method as per is 9013:1978 only one method is used that is accelerated curing by warm water method and for this method curing tank is constructed from a material of suitable strength that will resist the effect of corrosion.

And the internal dimensions of the tank will be adequate to accommodate the required number and size of the test specimen such that test specimen easily removed . For determining the setting time of concrete penetration test will be done as per IS: 8142-1976 and for testing the workability of concrete slump cone test will be done by slump test apparatus as per IS: 7320-1974.

Nominal mix 1:2:4 is adopted for this work and mix composition is calculated as per IS:10262-2009 . for each type of sample 10 cubes are to be cast in mould 150 mm X 150 mm X 150 mm as per IS 516:1959 and then allow for monitoring compressive strength at 3 , 7, 14, 21 and 28 days . and then the test result will be compared to follow up the correlation curve between the result from compressive strength test on specimen cured by normal curing method and accelerated curing method for tap water and sewage treated water.
