

International Journal of ChemTech Research

CODEN(USA): IJCRGG, ISSN: 0974-4290,

ISSN(Online):2455-9555 Vol.10 No.4, pp 213-218,2017

ChemTech

Effect of Metakaolinon Strength Characteristics of Concrete

R.Sivakumar¹*, N.Mohanraj¹, D.Saratahkumar², T.S.Venkatachalam³

¹Civil Engineering, Karpagam College of Engineering, Coimbatore, Tamilnadu, India ²Anna University Regional Centre, Coimbatore, Tamilnadu, India. ³Civil Engineering, Paavai College of Engineering, Namakkal, Tamilnadu, India

Abstract:In day to day the construction field can build new mega structure like underground tunnel, palm island, metro train bridges. The ordinary concrete cannot fulfil the above construction work, So we go for high strength concrete. In this paper we have to partially replace the cement by Metakaolin(MK). Metakaolin is Supplementary cementitious material. It is a by product of clay. The clay contain High purity kaolin deposits, it should be calcinated by certain temperature to breed metakaolin.

The mix design of concrete should be calculated by material test results. The replacement percentage of metakaolin is 0%,5%,10%,15%. several number of specimen are casted for M25 grade of concrete. The specimen should be cured 7 days and 28 days. Finally they should be tested by compression test, split tensile test, flexural test. The maximum strength should be obtained in 10 to 12 % of replacement of metakaolin.

Keywords:metakaolin, kaolin, Compressive strength Splitting strength, flexural strength.

R.Sivakumar et al/International Journal of ChemTech Research, 2017,10(4): 213-218.
