Abstract

This paper presents a computer aided mix design for high strength concrete is based on the guideline given in ACI 211. 4R-93. Design of concrete mix is extremely complicated since it involves many process and more efforts is required to understand the data given in tables and interpolations also needed frequently when intermediate values are required. Hence the manual process of calculating the mix design may also leads to the human error as the data may be mistakenly handled by the person. The program has been developed and the values have been cross checked with the manual calculation and also have been verified with the various research reports such as mix proportion utilized in (ACI 211-4R-93)(CPA 1995) and also compared with the other mix proportion whose compressive strength is 60 Mpa at 28 days. Hence the main objective of this paper is to develop a computer aided program to produce the accurate and reliable results within the short period of time and to predict the optimum mix proportion for high strength concrete incorporating silica fume as a partial replacement of cement.
References

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- ACI Committee 211. 4R-93 Guide for Selecting Proportions for High-Strength Concrete with Portland cement and Fly Ash.

Index Terms

Computer Science Applied Sciences

Keywords

Computer aided Mix design Mat lab and High strength concrete