DETERMINATION OF THE COMPRESSIVE STRENGTH OF CONCRETE FROM ONE TO TWENTY-EIGHT DAYS

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ABSTRACT

This research paper is presented in order to address the problem of determination of the compressive strength percentage requirement of concrete from the first day it was mixed until the twenty-eighth day.

Concrete samples were manufactured and tested for their daily strengths. Three sets of samples, 28 units each set, were considered in this research. After testing each specimen, the average of the three sets were computed. Tables and charts were generated from the results. The average values were adjusted to make a smoother curve, and then the results were compared with existing charts.

This study determined the average daily compressive strength of concrete. A table and a chart showing the age versus the average compressive strength percentage were the results of this study. It substantiated the existing charts, which gives only the data on the seventh, fourteenth and twenty-eighth day compressive strengths of concrete.

This paper is basically prepared for civil engineers who are in the construction business in order to provide them with readily available data on the daily compressive strength of concrete. It is hoped that this paper will encourage further study on the subject presented, particularly civil engineers, who have interest in the field of construction.