Concrete Creep Strain Estimation Formula and Design Values of Concrete by Considering the Strength Development

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Based on a literature survey on creep of mixed cements, this paper presents an estimation of creep coefficients in order to investigate design values of creep coefficients for different types of cement., An compressive strength estimation formula during loading used to calculate the creep strain used in estimating the creep strain coefficient was formulated based on the existing compressive strength estimation formula. First, the design values of creep coefficients for effective prestress calculations are presented. The values were calculated assuming cement types and standard conditions for prestressed concrete (PC) bridges. Then the authors confirm the effect of the creep coefficients on the verification of simple PC girder.