

[ABSTRACT]

The present invention provides an evaluation device that can acquire various physical property values of concrete necessary for evaluating the risk of thermal cracking, even when using concrete made of the same material as concrete used in the field. The evaluation device includes: a strength test unit including a plurality of first cylindrical molds; an unconfined test unit including a first rectangular frame having a bottom; a confined test unit including a second rectangular frame having a bottom, both ends of the second rectangular frame in a longitudinal direction being restrained by a confining steel member having a thermal expansion coefficient of less than $1 \times 10^{-6}/^{\circ}\text{C}$; a heat-insulated storage container covering the strength test unit, the unconfined test unit, and the confined test unit; and a thermometer configured to measure a temperature change inside the storage container. The unconfined test unit has a first strain sensor disposed within the first rectangular frame, and the confined test unit has a second strain sensor disposed on the confining steel member.