

Committee Report: JCI-TC133A

Technical Committee on Technological Standards of Concrete and its Use

委員会報告：JCI-TC133A コンクリートの技術基準に関する情報活用手法研究委員会

Hiroyuki TANANO, Dr. Eng.: Building Research Institute
棚野 博之, 工学博士: 建築研究所

Hitoshi HAMASAKI, Dr. Eng.: Shibaura Institute of Technology
濱崎 仁, 博士 (工学): 芝浦工業大学

Hirohisa KOGA, Dr. Eng.: Public Works Research Institute
古賀 裕久, 博士 (工学): 土木研究所

Atsushi UENO, Dr. Eng.: Tokyo Metropolitan University
上野 敦, 博士 (工学): 首都大学東京

Tadatsugu KAGE, Dr. Eng.: National Institute for Land and Infrastructure Management
鹿毛 忠継, 工学博士: 国土技術政策総合研究所

Contact: jci-web@jci-net.or.jp

Keywords: specification, test method, quality standard, strength, mix proportion, corrosion induced by chloride ion, frost damage, cracks, maintenance, carbonation

Abstract

The committee has aimed to investigate Japanese industrial standards (JIS) and other international standards, such as ISO and EN, that are related to concrete materials and structures, organize the relationships with the contents prescribed in specifications and guidelines that use (cite, follow, etc.) the various test methods, and propose methods for using information related to technical standards of concrete, such as test methods, quality specifications and criteria for use. In practice, the committee has a) organized the historical background and circumstances of the establishment of standards on quality and test methods and the relationships between relevant standards, b) surveyed the circumstances of establishing and/or revising specifications, etc. related to concrete and reinforced concrete structures and organized the bases of citing and following the contents of JIS, etc., and c) proposed a framework and model for using the results of the aforementioned two activities.

1. Introduction

Technical standards related to concrete require engineers to not only follow the values and methods prescribed in the standards but also to understand the significance and basis (origin) of each regulation because this leads to securing the quality and performances of concrete and serves as the basis of further research and development. The “study committee on interpretation of quality standards and testing methods related to concrete (TC-095A)”, which acted in 2010 to 2011, mainly investigated JIS A 5308 (ready mixed concrete) and test methods and quality standards related to its materials, analyzed and organized the circumstances and basis of their establishment and revision, the relationship with international standards (ISO, EN and ASTM), and the

utilization states, and proposed and summarized points needing improvement (a symposium held in November 2011).

The study committee on methods for using information about technological standards of concrete (hereinafter referred to as the “committee”) expanded the scope of survey and research and has surveyed JIS and international standards that were not included in the scope of TC-095A, organized the relationship with contents prescribed in specifications that use the standards, and investigated construction of methods for using information related to technical standards (test methods, quality standards and criteria for use) of concrete. In concrete terms, the committee has 1) expanded the scope of survey from.....