

No.29 結合材種類の異なる高強度コンクリートの強度発現性状に関する研究

河上 浩司*¹ 榎田 佳寛*² 西本 好克*³ 蓮尾 孝一*³

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No.29 Strength Development of High-Strength Concrete Using Various Kinds of Binder

HIROSHI KAWAKAMI*¹ YOSHIHIRO MASUDA*²
YOSHIKATSU NISHIMOTO*³ KOICHI HASUO*³

The strength development and mechanical properties of high-strength concrete using various kinds of binder were experimentally investigated. The range of strength was from 60MPa to 150MPa. Normal portland cement, low-heat portland cement, pre-mixed silica-fume low-heat portland cement, and post-mixed silica-fume low-heat portland cement were used as the binder. As the result, the following were confirmed.

- (1) When using the low-heat portland cement as based binder, properties of fresh concrete and strength development of structural concrete were influenced seriously by the temperatures of concrete and atmosphere.
- (2) In ultra high-strength concrete upper 150MPa class, the strength development of structural concrete under high temperature curing was higher than that of standard specimen.

Keywords: Strength development, High-strength concrete, Kind of binder, Core specimen

*1 建築研究開発部 研究員 Researcher, Architecture Department

*2 宇都宮大学 教授 工博 Professor, Utsunomiya Univ., Dr. Eng.

*3 建築研究開発部 室長 Manager, Architecture Department