

후각센서 사용에 의한 콘크리트 구조물의 품질평가에 관한 기초적 연구
Basic Study on Quality Assurance of Concrete Structure by using Odor Sensor

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Abstract

In order to assure the quality of concrete structure in construction process, the odor strength measured by using odor sensor was used to evaluate curing effect. Then, the compressive strength and odor strength in ordinary concrete N were shown in water curing(=standard curing), indoor and outdoor atmospheric curing condition. The difference between odor strength in the standard curing and that in each curing condition was defined as the difference in the odor strength. And the difference in odor strength in slag powder concrete BP cured in water curing(=standard curing) for different period before exposing in outdoor atmosphere in winter season were evaluated at the age of 14 days. A necessity to prolong the moisture curing for the slag powder concrete BP compared with the ordinary concrete N to obtain a required curing effect was shown by measuring the odor strength and long term compressive strength.

Keywords: Blast-furnace slag powder, Standard curing, Curing effect, Odor sensor, Odor strength, Compressive strength

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