
Experimental Study on Quality of Tunnel Lining Concrete at the Crown

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In general, tunnel lining concrete at the crown is placed by the upward concrete-injection method and a blow hole for placing concrete is installed at the edge of the formwork. Although the flow distance of concrete is approximately 10m with this method, this effect has not been sufficiently evaluated. Therefore we conducted a model test using a full-scale formwork to evaluate quality of concrete. Consequently, notable segregation was not be observed despite the long-distance flow of concrete. Additional model tests were conducted to evaluate the compaction methods and an improved construction method was proposed.