

RESEARCH ON APPLICABILITY OF SHOTCRETE-FINISHED ROAD TUNNEL

Abstract: In order to cut down the cost of tunnel construction, it is effective to aim at reducing excavation area and shortening construction time. Omission of permanent lining can be considered as the one of ways. In shotcrete-finished tunnel, permanent lining is not constructed inside tunnel support like conventional NATM. Function of lining is substituted with support by using thickened shotcrete etc. Though the examples of such tunnel are shown in foreign countries, there are a lot of problems to be solved to adopt it in the complex ground condition. In this study, applicability and substitutive structure of shotcrete-finished road tunnel in our country were examined. As a result, the applicable condition for shotcrete-finished road tunnel and the measures to alternate the function of the conventional lining were proposed.

Keywords: NATM, shotcrete-finished tunnel