In this study, the optimum value of the ratio of added set accelerating admixture used in the tunnel spraying concrete was investigated. 5%, 8%, 10% of the use of the set accelerating admixture and additives without using set accelerating admixture, cement concrete accelerator admixture compliance test and concrete compressive strength tests were made. In the experiments, water / cement ratio, amount and type of cement, aggregate amount and properties were kept constant. A total of 8 samples were prepared for the fit acceleration additive compliance test. Pure control samples, samples containing %5, %8 and %10 set accelerator were prepared and the results obtained were evaluated and the effect on the concrete setting time and concrete compressive strength were investigated. The amount of 10% set accelerating additives used in the experiments significantly shortens the setting time, and such shortening leads to application difficulties. In case of using 5% set accelerating additives material, the initial setting time is considered to be acceptable according to the setting time table. When the %8 accelerator additive amount is used, it is observed that the optimum result is obtained.