

## **Abstract**

This Bachelor's thesis is a summary of recent knowledge about the tunneling method Sprayed Concrete Lining. The first part of the thesis is focused on the origins of sprayed concrete, on the history of the SCL method and its connection to the NRTM method. Essential parts of this thesis include the principles of excavation using the SCL method, the excavation process and the requirements, such as construction monitoring. Additionally, there is an overview of shotcrete material; both, what the mixture is composed of and what geotechnical parameters, usually, limit the application of this method. The second part of the thesis presents mechanical parameters of clay rocks, and also includes a summary of the possibilities of using the SCL method in the Czech Republic, with a specific example of a planned project.