

## **Abstract**

This bachelor thesis studies the influence of clay fraction on the residual strength of soils. The introductory part of the thesis outlines the topic of residual strength in soil mechanics. The main part contains a review of research papers that studied the influence of clay fraction on the residual strength of soils. The information from the review is summarized and used in the design of laboratory experiments. A series of ring shear tests were conducted on (i) clay fraction from the “Dobkovičky” area, (ii) sand from the Střeleč quarry and (iii) their mixtures. The experimental results correspond with the reviewed papers: the correlation between the residual strength and the content of the clay fraction is, without the knowledge of mineralogical composition, insufficient. Therefore, the ring shear test is the most reliable method of determining the residual strength.