

SUMMARY

This Thesis deals with the determination of horizontal effective stress in-situ the clay massif in the city of Brno. To determine the value of the horizontal in-situ stress was at first established value of the coefficient of earth pressure at rest K_0 , which captures stress conditions in the massif and which is a main part of this Thesis. To determine the value of K_0 was used the method of the ratio of the horizontal to vertical preconsolidation pressure. Pseudo-preconsolidation pressure used to calculate K_0 was determined by using standard oedometer compression tests of oriented undisturbed samples. Research part of the Thesis deals with the issues of evolution of K_0 during secondary compression and results of previous published data. The results obtained from own experiments are discussed and compared with the results of previous published data.