

Estimation of Cam Clay Model Parameters of CU Triaxial Tests Results

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Abstract: The paper gives a general form of the mathematical model of soils models and a numerical example of its application in practice in the case of yellow clay covers on coal basin of Kosovo (models that describe the behavior of soil during the change of state stress). During the work, the results of the determination of the Cam clay parameters for yellow clay became evident. Laboratory testing was carried out in triaxial tests conditions on the yellow clay undisturbed specimens, obtained from Siboc lignite field in the Kosovo coal basin. According to the values obtained from triaxial test, Cam clay model parameters can be determined. The aim of this work is to define the behavior of the yellow clay by modified Cam clay model. Cam clay models describe the way soil behaves when loaded. This paper presents soil model based in the plasticity theory knowing as Cam clay models (Modified Cam Clay Model) calibrated with the results of laboratory Cu triaxial tests performed on representative yellow clay sample. Undisturbed soil specimens are tested with the assumption that they represent the average soil behavior (at that location). In conclusion, by applying cam clay model based on triaxial stress condition, in which the intermediate and the minor principle stresses is equal ($\sigma_3' = \sigma_2'$) the plasticity soil model for yellow clay is determined.

Key words: *CU Triaxial tests, modified Cam clay, normal-consolidated clays, critical state, yield function.*

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