

**EXAMINATION OF SOIL MATERIALS USING THE METHYLENE
BLUE METHOD IN SITES CURRENTLY HAVING HIGHWAY
CONSTRUCTION PROJECTS**

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ABSTRACT

Expansive soils usually cause serious damages to pavement structures, and on the other hand they couldn't be used as embankment material in roads.

The expansive potential of soils is mainly affected by their clay fraction and by the consistency of this fraction.

The results of the methylene blue dye absorption would consist a critical index of the volume changes in soils, because they are directly correlated with the ion exchange capacity of the soil.

In the present study, samples of fine-grained soils from Evros and Rodopi regions were examined and a correlation has been made between the values from the methylene blue test and the Atterberg limits. Through these correlations has clearly been seen that the methylene blue test could easily take the place or be run in parallel to common tests for the classification of fine-grained soils.

The equations arrived in this study must be verified by more testing and then they could be used as a measure of the suitability of locally sited soils for highway construction projects.