

STUDY THE EFFECT OF SOIL/GEOTEXTILE INTERFACES

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ABSTRACT

In many geotechnical construction projects use one of the geosynthetic material called geotextile embedded into the soil for various purpose such as for drainage, filtration, separation, and reinforcement.

It is well known that soil friction parameters have a significant effect on the overall performance of reinforced soil structures. Since this friction of the soil is a function of these parameters, it was desired to further investigate the effect of soil/geotextile interfaces. The shear strength along the interface between the geotextile and the adjacent soil becomes important and needs to be evaluated. This shear strength can be measured in the laboratory using a device called direct shear machine.

During the laboratory test, two types of soil known as inorganic clay and sandy soil along with a geotextile will be used. Two type of test will be performed on each of the soil, soil without geotextile and also soil with geotextile. Comparison will be made after the determined the cohesion, C and internal angle of friction, ϕ of the soil/geotextile interfaces. Graph plotted and the result of these tests will provide a thorough understanding of the effect geotextile soil/geotextile interfaces.