

Study on the Stress-Strain Behavior of Peat

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It is important to know the behavior of peat, especially the stress-strain of peat soil. Peat cannot support too much load on it because of peats have very low strength, high compressibility and long-term settlement. The suitable method to achieve the objective of this research study is using the direct simple shear test. It will be compared with the direct shear test. Peat is in anisotropy condition and contain fibric, so peat cannot be tested with all devices of shear strength test. Normal stresses are 12.5kPa, 25kPa, 50kPa and 100kPa with 0.1mm/min rate of shear. This research is to know the stress-strain between direct simple shear test and direct shear test based on peat specimens of hemic. This method covers the determination of the stress-strain relationship of peat and to investigate the behavior of peat. The test results will contribute and establish drained shear characteristic of tested peat. It shows that direct simple shear test stress-strain is increasing clearly than direct shear test. This research can help the geotechnical engineers and can be used in the development of foundation and as well as constructions.

Hemic, direct simple shear test, direct shear test