

The Influence of Water Content on the Shear Resistance of Silty Sands

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Abstract : This work involves an experimental study of the behavior of chlef sand under effect of various parameters influencing on shear strength. Because of their distinct nature, sands, silts and clays exhibit completely different behavior (shear strength, the contracting and dilatancy, the angle of internal friction and cohesion etc.). By cons when these materials are mixed, their behavior will become different from each considered alone. The behavior of these mixtures (silty sands etc.) is currently the state of several studies to better use. We studied in this work: The influence of the following factors on the shear strength: (The density, the fines content, the water content). The apparatus used for the tests is the shear box casagrande. This device, although one may have some disadvantages and modern instrumentation is appropriate used to study the shear strength of soils.

Keywords : behavior, shear strength, sand, silt, friction angle, cohesion, fines content, moisture content