

ABSTRACT

SOAKING EFFECT OF POWER SUPPORT ORGANIC SOIL UNCONFINED COMPRESSIVE STRENGTH USING TX – 300

by

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A construction or building is closely related to soil physical and mechanical conditions. To improve soil characteristic, soil should be stabilized. One of soil stabilization effort is using additive material. One of additive materials is TX-300 that is expected to improve soil characteristic to support a construction.

Soil samples tested in this study were derived from soil organic Sragi Swamp area, East Lampung. Variations in levels of mixture used is 0.8 ml, 1.1 ml, 1.4 ml, and 1.7 ml. At each level of a mix done soaking time for 4 days, 7 days, 14 days, 21 days, 28 days. Based on the examination of soil chemical and physical properties of the Unconfined soil test, USCS soil samples classified as fine-grained soil, and belongs to the group OH.

The results showed that TX-300 additive material was able to improve physical and mechanical characteristics of organic soil. Physical test on specific gravity and Atterberg limits showed improvement after soil stabilization, while mechanical test on soil mixture with TX-300 showed that TX-300 improved unconfined compressive strength (UCS). The UCS test results showed that stabilized soil with TX-300 could improve into TX optimum of 1.7 ml.

Keywords: TX-300, Organic Soil, Unconfined Compressive Strength (UCS).