ABSTRACT

CURING TIME EFFECT ON BEARING CAPACITY OF SANDY CLAY SOIL USING TX-300

By

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Road is one of many things that support the development of construction at cities and villages. Not every soil can be directly used for road construction. Soil conditions in one area will not have the same soil properties with the other area. Some has a good bearing capacity and there’s also some with poor soil bearing capacity. This thing is very influenced by the type of the soil, so that on construction is required a deeper understanding of the soil behavior analytically.

In this research, the tested soil is study clay soil that divided from Dusun kali ayu, Desa jadti baru, Kecamatan tanjung bintang, Kabupaten Lampung Selatan-Provinsi Lampung had been optimized with TX-300 with density of 2.49, water contents of 22.34 percent, 41.08 percent Liquit Limit, plastic limit of 31.92 percent and plasticity index of 9.15 percent. Mixed content of TX-300 that used was 1.2 ml and 6 kg soil sample for 0, 7, 14 and 28 day with unsoaked method.

On physical examination like density and liquit limit increased after stabilized. While the mechanical examination, TX-300 is quite effective in increasing the bearing capacity along with the increasing of curing duration from 21.69% up to 25.92% in 28 days curing time. From CBR test result without soaking, the soil that has stabilized with TX-300 has a less effect in increasing the bearing capacity of the sandy clay soil compared with of stabilizing on soft clay soil.

Keywords: TX-300, Soil Stabilization, Sandy Clay Soil, CBR