

The Influences of Mixing Water and Porosity on the Variation of Loam's Mechanic Strength



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ABSTRACT

Objectives and Methods

In this study, compactibility limit of the material is investigated by also taking into consideration mixture of loam and type of mineral. For this reason, compressive strength is tried to increase by determining the effects of mixing water contents and unit mass on compressive stresses. Five loam mixture samples investigated were batched with different water contents without including any additives and left drying by being compacted in cubic blocks in 10 cm dimensions. After the mass decreased to an unchangeable limit, cubic samples subjected to compression experiments. The variations of compressive strength acquired from the experiments are shown in the strain-stress diagram.

Conclusions

Results obtained from this study show that mixing water affects unit mass and unit mass also increases the compressive strength. Besides, it is determined that the other parameter is the mineral type. Because, mineral types influence porosity, in other words, the changes in the unit mass.

KEY WORDS :

Mixing water, Porosity, Strain