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Physical-Mechanical Features of the Sandy Clayey Silt From the Inner Shore of the Izmit Gulf in the Marmara Sea-Turkey

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Physical and mechanical features such as composition (content of clay, silt and sand), index properties, behaviour during oedometer consolidation, strength and deformation behaviour in triaxial compression for clay samples collected from the drill-holes performed in the Izmit Gulf, in the south of Körfez district were examined. The samples are from the upper part of the Quaternary Unit consisting of sandy silty clay. The samples are overconsolidated due to overburden pressure. The index, triaxial pressure and consolidation tests were conducted on the distrubed and undisturbed of the test samples. Detailed geotechnical properties of the clay showed the liquid limit to be greater than 39% and it depended significantly on treatment before testing. Very low maximum dry densities of 1.36 kg/m3 a high optimum moisture content of 22%, and a high compression index of 0.359 were obtained.