

Treatment of Dredged Marine Sediments for Their Reuse in Road Construction

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Abstract : Dredging operations generate, each year, a great quantity of marine sediments. These raw materials can not be used in road construction without a specific treatment process. Sediments suitability tests has shown that most of studied sediments are not suitable to be used in road construction. In order to improve their compacity and their mechanical performance, addition of a granular material is recommended. The use of a dredged sand, to improve the granular mixture containing sediments, allows a better management of the two types of dredge materials (sand and sediment). In this study, a new road material containing dredged marine sediments and dredged sand is formulated and treated by adding various binders. Mechanical performance investigation of different mixtures by measuring Proctor-IPI values and simple compressive strengths is realized.

Keywords : dredged sediments, suitability tests, road construction, hydraulic binder, mechanical performance

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