
Resilient Behaviour of non Standard Unbound Granular Materials

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ABSTRACT. The results of experimental work on three non-standard granular materials used in road construction are presented. Small strain precision triaxial tests under cyclic loading and wetting tests were performed on all samples. The materials' state parameters studied included: Los Angeles abrasion coefficient, Plasticity Index, and fines content above allowed limits. The influence of each parameter and the influence of water content were studied. This work emphasizes the role of negative pore water pressure for interpretation of results. A method to take into account both the effects of total stresses and negative pressure is proposed within a perspective of a more rational design of pavement layers.

KEYWORDS: Suction, Unsaturated Unbound Materials, Resilient Modulus, Non-standard Road Materials.

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