

## عنوان مقاله:

Laboratory Permeability Testing of Flexible Pavement Subgrade Soil

## محل انتشار:

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## خلاصه مقاله:

Permeability is an essential property of pavement materials and the subgrade soil for the estimation and analysis of water flow through the pavement. The essential factors in testing the permeability are the type of permeameter, hydraulic gradient, effective stress, head conditions, and how representative the sample is. Obtaining 100% saturation is always a problem especially with low hydraulic conductivity materials such as clays. This paper presents the determination of the saturated hydraulic conductivity for four different subgrade soils obtained from a construction project. A flexible wall permeameter is used. The soils were classified as CL, ML, SC, and SM according to the USCS. Permeability of the subgrade soil was in the order of  $10^{-7}$  to  $10^{-8}$  cm/sec. The permeability results obtained by assuming a constant head condition was close to that estimated assuming falling/rising condition. Therefore, the assumption of a constant head is recommended for ease of computation. The obtained permeability results agree well with data reported in the literature for the same type of soils. The high percentage of fines has a significant effect on reducing the permeability for coarsegrained soils.

## کلمات کلیدی:

Permeability, Flexible wall permeameter, Subgrade soil, Flexible pavement

## لینک ثابت مقاله در پایگاه سیویلیکا:

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