

# **Critical Velocity at Which Soil Particles Start to Migrate During Water Seepage**

## **Problem**

The porosity of a deposit is determined by the particle arrangement and contacts of various particle sizes. During water seepage and drainage, water passes through this pore space and when the water velocity increases above a critical value, finer soil particles start to migrate with the water flow. The critical velocity at which the soil particle starts to migrate would be of great importance, as it would determine the maximum allowable seepage at which the safety and integrity of the soil deposit is being compromised.

## **Solution Sought**

A close form mathematical equation, which relates to soil particle distribution, porosity or particle arrangement with critical water velocity at which particles would start to migrate.

## **Practical Application**

Understanding seepage behaviour of earth dams.

*Submitted by : Powertech Labs Inc.*

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