

Title (en)

METHOD FOR MEASURING THE ELASTO-PLASTIC PROPERTIES OF SOIL USING A STATIC PENETROMETER

Title (de)

VERFAHREN ZUR MESSUNG DER ELASTO-PLASTISCHEN EIGENSCHAFTEN VON ERDE UNTER VERWENDUNG EINES STATISCHEN PENETROMETERS

Title (fr)

PROCEDE DE MESURE DES PROPRIETES ELASTO-PLASTIQUES D'UN SOL GRACE A UN PENETROMETRE STATIQUE

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Application

EP 19813097 A 20191023

Priority

- FR 1860074 A 20181031
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Abstract (en)

[origin: WO2020089547A1] The invention concerns a method for measuring the elasto-plastic properties of soil, using a static penetrometer provided with a hollow tube surrounding a central rod capable of sliding inside the hollow tube and terminated at a first end by a measuring tip, the method comprising the following steps: a) Driving the pair formed by the hollow tube and the central rod into the soil, in order to bring the measuring tip to a desired depth for measuring the elasto-plastic properties of the soil, the measuring tip being in abutment against the hollow tube; b) Applying a first constant force to a second end of the rod, for a determined period; c) Measuring a first final movement, associated with the measuring tip being driven into the soil, at the end of the determined period; d) Repeating steps b) and c) with successive increasing forces, in order to form a curve representing the final movement as a function of the force, until an nth force is reached leading to an nth final movement, the nth final movement being the maximum and reflecting the tensile strength of the soil; e) Extracting a modulus of deformation of the soil from the slope of the curve, in a first elastic domain located before an inflection point.

IPC 8 full level

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