



SLOVENSKI STANDARD
SIST EN ISO 22476-12:2009

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Geotechnical investigation and testing - Field testing - Part 12: Mechanical cone penetration test (CPT) (ISO 22476-12:2009)

Geotechnische Erkundung und Untersuchung - Felduntersuchungen - Teil 12: Mechanische Drucksondierung (ISO 22476-12:2009)

Reconnaissance et essais géotechniques - Essais en place - Partie 12: Essai de pénétration statique au cône a pointe mécanique (ISO 22476-12:2009)

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Ta slovenski standard je istoveten z: EN ISO 22476-12:2009

ICS:

93.020	Zemeljska dela. Izkopavanja.	Earthworks. Excavations.
	Gradnja temeljev. Dela pod	Foundation construction.
	zemljo	Underground works

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 22476-12

May 2009

ICS 93.020

English Version

Geotechnical investigation and testing - Field testing - Part 12: Mechanical cone penetration test (CPTM) (ISO 22476-12:2009)

Reconnaissance et essais géotechniques - Essais en place
- Partie 12: Essai de pénétration statique au cône à pointe
mécanique (ISO 22476-12:2009)

Geotechnische Erkundung und Untersuchung -
Felduntersuchungen - Teil 12: Drucksondierungen mit
mechanischen Messwertaufnehmern (ISO 22476-12:2009)

This European Standard was approved by CEN on 16 April 2009.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

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Foreword

This document (EN ISO 22476-12:2009) has been prepared by Technical Committee CEN/TC 341 "Geotechnical Investigation and Testing" the secretariat of which is held by ELOT, in collaboration with Technical Committee ISO/TC 182 "Geotechnics".

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2009, and conflicting national standards shall be withdrawn at the latest by November 2009.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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INTERNATIONAL
STANDARD

ISO
22476-12

First edition
2009-05-15

**Geotechnical investigation and testing —
Field testing —**

Part 12:
Mechanical cone penetration test (CPTM)

Reconnaissance et essais géotechniques — Essais en place —

Partie 12: Essai de pénétration statique au cône à pointe mécanique
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 22476-12 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 341, in collaboration with ISO Technical Committee TC 182, *Geotechnics*, Subcommittee SC 1, *Geotechnical investigation and testing*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

ISO 22476 consists of the following parts, under the general title *Geotechnical investigation and testing — Field testing*:

- SIST EN ISO 22476-12:2009
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- *Part 2: Dynamic probing*
 - *Part 3: Standard penetration test*
 - *Part 4: Ménard pressuremeter test*
 - *Part 5: Flexible dilatometer test*
 - *Part 7: Borehole jack test*
 - *Part 10: Weight sounding test* [Technical Specification]
 - *Part 11: Flat dilatometer test* [Technical Specification]
 - *Part 12: Mechanical cone penetration test (CPTM)*

Electrical cone and piezocone penetration tests, self-boring pressuremeter test, full displacement pressuremeter test, and field vane test are to form the subjects of future parts 1, 6, 8 and 9.

Introduction

The mechanical cone penetration test (CPTM) consists of pushing a cone penetrometer, by means of a series of push rods, into the soil at a constant rate of penetration. During penetration, measurements of cone penetration resistance, total penetration resistance and/or sleeve friction can be recorded. The test results can be used for interpretation of stratification, classification of soil type and evaluation of geotechnical parameters.

Cone resistance is the term used in practice; however, *cone penetration resistance* is a more accurate description of the process, and is the term used in this part of ISO 22476.

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