

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

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 22476-12:2009 sisaldab Euroopa standardi EN ISO 22476-12:2009 ingliskeelset teksti.

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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)

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

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of an identical text or by endorsement, at the latest by November 2009, and conflicting national standards shall be withdrawn at the latest by November 2009.

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Contents

Page

Foreword.....	iv
Introduction.....	v
1 Scope	1
2 Normative references	1
3 Terms, definitions, symbols and abbreviated terms.....	2
3.1 Terms and definitions.....	2
3.2 Symbols and abbreviated terms	6
4 Equipment	6
4.1 Cone penetrometer load sensors.....	6
4.2 Tolerances	6
4.3 Surface roughness	7
4.4 Cone penetrometer	7
4.5 Cone	8
4.6 Friction sleeve.....	9
4.7 Push rods	11
4.8 Inner rods	11
4.9 Measuring system.....	11
4.10 Thrust machine	12
5 Test procedures	12
5.1 Selection of type of cone penetrometer test.....	12
5.2 Selection of equipment and procedures	13
5.3 Position and level of thrust machine	15
5.4 Preparation	15
5.5 Pushing of the cone penetrometer	15
5.6 Use of friction reducer.....	15
5.7 Frequency of logging parameters.....	15
5.8 Measurement of cone penetration force for discontinuous penetration testing	15
5.9 Measurement of cone penetration force for continuous testing	16
5.10 Measurement of sleeve friction force for discontinuous testing with M2 cone penetrometers	16
5.11 Measurement of total penetration force for discontinuous testing.....	16
5.12 Measurement of total penetration force for continuous testing (TM4)	16
5.13 Measurement of the penetration length	16
5.14 Test completion	16
5.15 Equipment checks and calibrations	17
6 Test results	17
6.1 Measured parameters.....	17
6.2 Calculated parameters	17
7 Reporting	17
7.1 General.....	17
7.2 Reporting of test results	17
7.3 Presentation of test results	20
Annex A (normative) Maintenance, checks and calibration	21
Bibliography	23

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.

Geotechnical investigation and testing — Field testing —

Part 12:

Mechanical cone penetration test (CPTM)

1 Scope

This part of ISO 22476 specifies a mechanical cone penetration test (CPTM), including equipment requirements, execution and reporting. The results from such geotechnical testing are especially suited to the qualitative and/or quantitative determination of a soil profile — together with direct investigations — or as a relative comparison with other *in situ* tests.

The results from a cone penetration test can in principle be used to evaluate stratification, soil type, and geotechnical parameters such as soil density, shear-strength parameters and deformation and consolidation characteristics.

This part of ISO 22476 specifies the following features:

- type of cone penetration test (see Table 1);
- application class (see Table 2);
- penetration length or penetration depth;
- elevation of the ground surface or underwater ground surface at the location of the cone penetration test with reference to a datum;
- location of the cone penetration test relative to a reproducible fixed location reference point.

NOTE The planning and evaluation of an investigation programme and the application of its results to design are covered by EN 1997-1 and EN 1997-2.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 8503 (all parts), *Preparation of steel substrates before application of paints and related products — Surface roughness characteristics of blast-cleaned steel substrates*

ISO 10012:2003, *Measurement management systems — Requirements for measurement processes and measuring equipment*