

BS EN ISO 22476-4:2012



BSI Standards Publication

Geotechnical investigation and testing — Field testing

Part 4: Ménard pressuremeter test

bsi.

...making excellence a habit.™

This is a preview. [Click here to purchase the full publication.](#)

National foreword

This British Standard is the UK implementation of EN ISO 22476-4:2012. It partially supersedes BS 5930:1999+A2:2010, which is currently being revised in order to remove conflicting material.

The tests included in BS 5930:1999 (Clauses 25.7.2.1 and 25.7.4.1, and more generally in clauses 27.7.3, 25.7.5 and 25.7.6) are also provided in this standard. In the meantime, where conflict arises between these documents, the provisions of BS EN ISO 22476-4:2012 take precedence.

The UK participation in its preparation was entrusted by Technical Committee B/526, Geotechnics, to Subcommittee B/526/3, Site investigation and ground testing.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2013.
Published by BSI Standards Limited 2013

ISBN 978 0 580 77220 7

ICS 93.020

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 March 2013.

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 22476-4

December 2012

ICS 93.020

English Version

**Geotechnical investigation and testing - Field testing - Part 4:
Ménard pressuremeter test (ISO 22476-4:2012)**

Reconnaissance et essais géotechniques - Essais en place
- Partie 4: Essai au pressiomètre Ménard (ISO 22476-4:2012)

Geotechnische Erkundung und Untersuchung -
Felduntersuchungen - Teil 4: Pressiometerversuch nach
Ménard (ISO 22476-4:2012)

This European Standard was approved by CEN on 30 November 2012.

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-CENELEC 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-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
Foreword.....	3

Foreword

This document (EN ISO 22476-4:2012) 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 June 2013, and conflicting national standards shall be withdrawn at the latest by June 2013.

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 organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Contents		Page
1	Scope	1
2	Normative references	2
3	Terms, definitions and symbols	2
3.1	Terms and definitions	2
3.2	Symbols	4
4	Equipment	6
4.1	General description	6
4.2	Pressuremeter probe	7
4.3	Pressure and volume control unit (CU)	11
4.4	Connecting lines	11
4.5	Injected liquid	11
4.6	Measurement and control	11
4.7	Data logger	12
5	Test procedure	12
5.1	Assembling the parts	12
5.2	Calibration and corrections	12
5.3	Pressuremeter pocket and probe placing	12
5.4	Preparation for testing	13
5.5	Establishing the loading programme	13
5.6	Establishing the differential pressure	14
5.7	Expansion	15
5.8	Back-filling of the pockets	15
5.9	Safety requirements	15
6	Test results	16
6.1	Data sheet and field print-out	16
6.2	Corrected pressuremeter curve	17
6.3	Calculated results	17
7	Reporting	18
7.1	General	18
7.2	Field report	18
7.3	Test report	18
Annex A (normative) Geometrical features of pressuremeter probes		20
Annex B (normative) Calibration and corrections		23
Annex C (normative) Placing the pressuremeter probe in the ground		31
Annex D (normative) Obtaining pressuremeter parameters		38
Annex E (normative) Resolution and uncertainties		46
Annex F (normative) Pressuremeter test records		47
Bibliography		51