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

Part 2:
Dynamic probing

AMENDMENT 1

iTeh STANDARD PREVIEW

(standards.iteh.ai) *Reconnaissance et essais géotechniques — Essais en place —*

Partie 2: Essais de pénétration dynamique

ISO 22476-2:2005/Amd 1:2011

AMENDEMENT 1

<https://standards.iteh.ai/catalog/standards/sist/781bd8f7-cb00-4d6f-b43d-30e28e888f5b/iso-22476-2-2005-amd-1-2011>



iTeh STANDARD PREVIEW (standards.iteh.ai)

[ISO 22476-2:2005/Amd 1:2011](https://standards.iteh.ai/catalog/standards/sist/781bd8f7-cb00-4d6f-b43d-30e28e888f5b/iso-22476-2-2005-amd-1-2011)
<https://standards.iteh.ai/catalog/standards/sist/781bd8f7-cb00-4d6f-b43d-30e28e888f5b/iso-22476-2-2005-amd-1-2011>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2011

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

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.

Amendment 1 to ISO 22476-2:2005 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 341, *Geotechnical Investigation and Testing*, in collaboration with Technical Committee ISO/TC 182, *Geotechnics*, Subcommittee SC 1, *Geotechnical investigation and testing*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

(standards.iteh.ai)

[ISO 22476-2:2005/Amd 1:2011](https://standards.iteh.ai/catalog/standards/sist/781bd8f7-cb00-4d6f-b43d-30e28e888f5b/iso-22476-2-2005-amd-1-2011)

<https://standards.iteh.ai/catalog/standards/sist/781bd8f7-cb00-4d6f-b43d-30e28e888f5b/iso-22476-2-2005-amd-1-2011>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO 22476-2:2005/Amd 1:2011](https://standards.iteh.ai/catalog/standards/sist/781bd8f7-cb00-4d6f-b43d-30e28e888f5b/iso-22476-2-2005-amd-1-2011)

<https://standards.iteh.ai/catalog/standards/sist/781bd8f7-cb00-4d6f-b43d-30e28e888f5b/iso-22476-2-2005-amd-1-2011>

Geotechnical investigation and testing — Field testing —

Part 2: Dynamic probing

AMENDMENT 1

Page 1, Scope

Replace the first paragraph with the following:

This part of ISO 22476 deals with the equipment requirements for, execution of and reporting on dynamic probing.

NOTE This part of ISO 22476 fulfils the requirements for dynamic probing as part of geotechnical investigation and testing according to EN 1997-1 and EN 1997-2.

In the first sentence of the last paragraph, replace prEN ISO 22475-1 with ISO 22475-1.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Page 1, Normative references

Replace the second reference with the following:

ISO 22475-1, *Geotechnical investigation and testing — Sampling methods and groundwater measurements — Part 1: Technical principles for execution*

Page 3, 4.3

Add the following paragraph after the first paragraph:

The optional injection hole should be placed a sufficient distance above the tip of the cone so that the mud flushing does not influence the soil material at the tip.

Page 4, 4.3, Figure 1

Replace item 2 of the Key with the following:

- 2 Injection hole, e.g. of 5 mm diameter (optional)

Page 4, 4.4

In the third sentence of the first paragraph, replace “at the mid point” with “at any point”.

Page 5, 4.6.2

In the second sentence, replace “measure” with “measured”.

Page 5, 4.6.3

Before NOTE 1, add the following paragraph:

When conducting injections at contaminated sites, injections should always be carried out during the whole driving operation, even when pulling the driving rods.

Page 6, 4.6.5, Table 1

In row 3, column 7, replace "50 < d < 0,5 D_h" with "50 < d < 0,5 D_h^a".

In row 5, column 1, delete "rod deviation^d."

In row 5, columns 1, 3, 4, 5, 6, 7 and 8, delete the following:

lowermost 5 m	%	0,1	0,1	0,1	0,1	0,1
---------------	---	-----	-----	-----	-----	-----

In row 5, columns 1, 3, 4, 5, 6, 7 and 8, delete the following:

remainder	%	0,2	0,2	0,2	0,2	0,2
-----------	---	-----	-----	-----	-----	-----

In row 6, columns 4, 5, 6, 7 and 8, replace the numbers with the following:

49	98	164	195	234
----	----	-----	-----	-----

In row 7, delete the last footnote (^d rod deviation from the vertical).

iteh STANDARD PREVIEW
(standards.iteh.ai)

Page 6, 5.1

After the second sentence of the first paragraph, add the following:

ISO 22476-2:2005/Amd.1:2011
<https://standards.iteh.ai/catalog/standards/sist/781bd8f7-cb00-4d6f-b43d-30e28e888f5b/iso-22476-2-2005-amd-1-2011>

The straightness shall be checked by applying one of the following procedures.

- Holding the rod vertically and rotating it. If the rod appears to wobble, the straightness is not acceptable.
- Rolling the rod on a plane surface. If the rod appears to wobble, the straightness is not acceptable.
- Sliding a straight hollow tube which is slightly longer than the rod over the rod. If the rod can pass through the tube without jamming, the straightness is acceptable.

After the fourth paragraph, add the following paragraph:

For free-fall penetrometers, the energy losses should be determined annually. The actual energy transmitted to the drive rods should be known by calibration when the test results are used for quantitative evaluation.

Page 7, 5.2

In the second paragraph, replace the second, third and fourth sentences with the following:

The inclination of the driving system and the driving rod projecting from the ground shall not deviate more than 5 % from the vertical. If this is the case, the dynamic probing test shall be stopped. Deviations by more than 2 % shall be reported.

Page 7, 5.3

In the second paragraph, add the word “dynamic” before “load”.

In paragraph 7, add “(N_{10})” after “100 mm penetration” and after “every 100 mm”. Add “(N_{20})” after “200 mm penetration”.

Page 8, Clause 6

At the end of the first paragraph, add the following:

The test results shall be reported as blow counts without any correction or adjustment. Adjustments including for energy losses may be considered in further interpretation.

Add the following as the last paragraph:

For identification and classification of the ground, the results of sampling (according to ISO 22475-1) from at least one borehole, trial pit or heading shall be available for the evaluation of the results. In addition, identification and classification results (see ISO 14688 and ISO 14689) shall be available from every separate ground layer within the desired investigation depth [see EN 1997-2:2007, 2.4.1.4(2) P, 4.1(1) P and 4.2.3(2) P].

Page 9, 7.1.2

Add the following to 7.1.2 c):

6) type of rod (hollow or solid material);

<https://standards.iteh.ai/catalog/standards/sist/781bd8f7-cb00-4d6f-b43d-50c18203f5b/iso-22476-2-2005-amd-1-2011>

Insert the following as item 7) in 7.1.2 d):

any deviation of the driving equipment from the vertical greater than 2 %;

Renumber the subsequent items in 7.1.2 d) accordingly.

Page 12, Annex B

In row 4 of the table, add “Hollow rods/solid rods *)” after “Fixed/loose anvil *)”

Page 19, D.3

In Figure D.5, replace “ N_{10L} ” with “ N_{10H} ” on the X-axis.

Page 20, D.3

After the fourth paragraph, before Figure D.7, add the following:

NOTE Further information on the correction procedure is given in Reference [10].

Page 24, D.6, Figure D.14

In the second column in the table, replace “ U_C ” with “ C_U ”.

Page 30, Bibliography

In Reference [8], replace “EN 1997-2” with “EN 1997-2:2007 + AC:2010”.

Add the following references:

- [1] ISO 14688 (all parts), *Geotechnical investigation and testing — Identification and classification of soil*
- [2] ISO 14689 (all parts), *Geotechnical investigation and testing — Identification and classification of rock*
- [3] BUTCHER, A.P., McELMEEL, K. and POWELL, J.J.M.: *Dynamic probing and its use in clay soils*. Proc. Int. Conf. on Advances in Site Investigation Practice. ICE London 1995, pp. 383-395

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO 22476-2:2005/Amd 1:2011](https://standards.iteh.ai/catalog/standards/sist/781bd8f7-cb00-4d6f-b43d-30e28e888f5b/iso-22476-2-2005-amd-1-2011)
<https://standards.iteh.ai/catalog/standards/sist/781bd8f7-cb00-4d6f-b43d-30e28e888f5b/iso-22476-2-2005-amd-1-2011>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO 22476-2:2005/Amd 1:2011](https://standards.iteh.ai/catalog/standards/sist/781bd8f7-cb00-4d6f-b43d-30e28e888f5b/iso-22476-2-2005-amd-1-2011)

<https://standards.iteh.ai/catalog/standards/sist/781bd8f7-cb00-4d6f-b43d-30e28e888f5b/iso-22476-2-2005-amd-1-2011>