

Soil quality —

Part 5: Physical methods —

Section 5.2 Determination of water content in the unsaturated zone — Neutron depth probe method

ICS 13.080

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Committees responsible for this British Standard

The preparation of this British Standard was entrusted by Technical Committee EH/4, Soil quality, to Subcommittee EH/4/5, Physical methods, upon which the following bodies were represented:

- Association of Consulting Scientists
- British Society of Soil Science
- Cambridge University
- Institute of Hydrology
- Institution of Civil Engineers
- Macaulay Land Use Research Institute
- Soil Survey and Land Research Centre
- University of Glasgow
- University of Stirling
- University of Ulster

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National foreword

This Section of BS 7755 has been prepared by Subcommittee EH/4/5 and is identical with ISO 10573:1995 *Soil quality — Determination of water content in the unsaturated zone — Neutron depth probe method*, published by the International Organization for Standardization (ISO).

ISO 10573 was prepared by Subcommittee 5, Physical methods, of Technical Committee ISO/TC 190, Soil quality, with the active participation and approval of the UK.

BS 7755 is being published in a series of Parts subdivided into Sections and Subsections that will generally correspond to particular International Standards. The Parts of BS 7755 are, or will be, as follows.

- *Part 1: Terminology and classification;*
- *Part 2: Sampling;*
- *Part 3: Chemical methods;*
- *Part 4: Biological methods;*
- *Part 5: Physical methods.*

Cross-references. The Technical Committee has reviewed the provisions of the draft of ISO 11272 and ISO 11461, to which normative reference is made in the text, and has decided that they are acceptable for use in conjunction with this standard.

Textual errors. When adopting the text of the International Standard, the textual errors listed below were discovered. They have been marked in the text and have been reported to ISO in a proposal to amend the text of the International Standard.

In **6.2**, the second sentence of paragraph 5 should read “To meet the requirement for time invariant gradients, the calibration shall not be conducted after heavy rain or irrigation applications, or immediately after the sudden beginning of very warm weather.”

In **A.3**, the first sentence in item a) should read “This is characterized by a constant vertical distribution of water content (steady-state water content profile), for given soil water potential conditions in the unsaturated soil (pressure head, h) and a given depth d of the phreatic level (groundwater level), the so-called state variables.”

In **A.3**, paragraph 4 of item b), in lines 9 and 10 delete “hydrostatic pressure distribution”; in line 17, delete “Inversely” and substitute “Conversely”.

In **B.2**, the second sentence of paragraph 4, delete “depth probes calibration” and substitute “calibration procedures for neutron depth probes”. In paragraph 6, delete the last two sentences and substitute “A depth interval of less than 0.1 m is not usually useful because of overlapping of the measuring volume (the sphere of importance of the probe) as measurements are made”.

In **D.1**, line 3, delete “final result of” and substitute “resulting”.

NOTE *Typographical errors*

In **6.1 b)**, line 3, the reference to **6.1.1** should be to **6.1 a)**.

In **A.2.1**, in the first line of the paragraph below the list, “mentionned” should be “mentioned”.

In **A.3**, in the penultimate line of paragraph 1, “tab’s” should be “tables”; in the first sentence in paragraph 4 “corresponding” was misspelt.

In **D.3**, in the penultimate line of paragraph 4, “ $s_e \approx s_1$ ” should be “ $s_0 \approx s_1$ ”.

In Annex E, in reference [3], “GRAECEN” should be “GREACEN”.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 12, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

