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Geotechnical investigation and testing - Laboratory testing of rock - Part 1: Determination of water content (ISO 16383-1:2025)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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**Geotechnical investigation and testing - Laboratory testing
of rock - Part 1: Determination of water content (ISO
16383-1:2025)**

Reconnaissance et essais géotechniques - Essais de
laboratoire sur les roches - Partie 1: Détermination de
la teneur en eau (ISO 16383-1:2025)

Geotechnische Erkundung und Untersuchung -
Laborversuche an Felsproben - Teil 1: Bestimmung des
Wassergehalts (ISO 16383-1:2025)

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EN ISO 16383-1:2025 (E)

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European foreword

This document (EN ISO 16383-1:2025) has been prepared by Technical Committee ISO/TC 182 "Geotechnics" in collaboration with Technical Committee CEN/TC 341 "Geotechnical Investigation and Testing" the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by January 2026, and conflicting national standards shall be withdrawn at the latest by January 2026.

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Endorsement notice

The text of ISO 16383-1:2025 has been approved by CEN as EN ISO 16383-1:2025 without any modification.



International Standard

ISO 16383-1

Geotechnical investigation and testing — Laboratory testing of rock —

Part 1: Determination of water content

*Reconnaissance et essais géotechniques — Essais de laboratoire
sur les roches —*

Partie 1: Détermination de la teneur en eau

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ISO 16383-1:2025(en)**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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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

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ISO 16383-1:2025(en)**Introduction**

This document covers areas in the international field of geotechnical engineering never previously standardized internationally. It is intended that this document presents broad good practice throughout the world and significant differences with national documents is not anticipated. It is based on international practice (see Reference [\[1\]](#)).

Geotechnical investigation and testing — Laboratory testing of rock —

Part 1: Determination of water content

1 Scope

This document specifies a method of determining the water content of rocks.

This document is applicable to the laboratory determination of the water content of a rock test specimen by oven-drying within the scope of geotechnical investigations. The oven-drying method is the definitive procedure used in usual laboratory practice.

The practical procedure for determining the water content of a rock is to determine the mass loss on drying the test specimen to a constant mass in a drying oven controlled at a given temperature. The mass loss is assumed to be due to free water and is referenced to the remaining dry mass of the test specimen.

NOTE This document fulfils the requirements of the determination of water content of rock for geotechnical investigation and testing according to EN 1997-2.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 14689, *Geotechnical investigation and testing — Identification, description and classification of rock*

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