

STN	Geotechnický prieskum a skúšky Laboratórne skúšky zemín Časť 5: Oedometrická skúška s postupným zaťažením (ISO 17892-5: 2017)	STN EN ISO 17892-5 72 1049
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Geotechnical investigation and testing - Laboratory testing of soil - Part 5: Incremental loading oedometer test (ISO 17892-5:2017)

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

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EN ISO 17892-5

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English Version

**Geotechnical investigation and testing - Laboratory testing
of soil - Part 5: Incremental loading oedometer test (ISO
17892-5:2017)**

Reconnaissance et essais géotechniques - Essais de
laboratoire sur les sols - Partie 5: Essai de chargement
par palier à l'oedomètre (ISO 17892-5:2017)

Geotechnische Erkundung und Untersuchung -
Laborversuche an Bodenproben - Teil 5:
Oedometerversuch mit stufenweiser Belastung (ISO
17892-5:2017)

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Contents	Page
European foreword.....	3

European foreword

This document (EN ISO 17892-5:2017) has been prepared by Technical Committee CEN/TC 341 “Geotechnical Investigation and Testing”, the secretariat of which is held by BSI, 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of an identical text or by endorsement, at the latest by September 2017, and conflicting national standards shall be withdrawn at the latest by September 2017.

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Endorsement notice

The text of ISO 17892-5:2017 has been approved by CEN as EN ISO 17892-5:2017 without any modification.

**Geotechnical investigation and
testing — Laboratory testing of soil —
Part 5:
Incremental loading oedometer test**

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

Partie 5: Essai de chargement par palier à l'oedomètre





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Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols	2
5 Equipment	3
6 Test procedure	6
6.1 General	6
6.2 Specimen preparation	6
6.2.1 Selection of preparation method	6
6.2.2 Trimming from extruded or block sample	6
6.2.3 Extrusion from tube of diameter larger than the oedometer ring	7
6.2.4 Recompacted specimens	7
6.3 Measurement	7
6.4 Preparation of apparatus	7
6.4.1 Assembly of cell	7
6.4.2 Assembly in load frame	8
6.5 Loading	8
6.5.1 Loading sequence	8
6.5.2 Application of loads	9
6.6 Dismantling	9
7 Test results	10
7.1 General	10
7.2 Initial values	10
7.2.1 General	10
7.2.2 Initial water content	10
7.2.3 Initial bulk and dry density	10
7.3 Compressibility characteristics	10
7.3.1 General	10
7.3.2 Specimen height	10
7.3.3 Vertical strain	11
7.3.4 Void ratio	11
7.3.5 Compression-stress diagram	12
8 Test report	12
8.1 Mandatory reporting	12
8.2 Optional reporting	13
Annex A (normative) Calibration, maintenance and checks	14
Annex B (informative) Additional calculations	17
Bibliography	26

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 documents 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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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

ISO 17892-5 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 341, *Geotechnical investigation and testing*, in collaboration with ISO Technical Committee ISO/TC 182, *Geotechnics*, in accordance with the agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This first edition cancels and replaces ISO/TS 17892-5:2004, which has been technically revised. It also incorporates the Technical Corrigendum ISO/TS 17892-5:2004/Cor 1:2006.

A list of all parts in the ISO 17892 series can be found on the ISO website.

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 practices (see Reference [\[1\]](#)).

Geotechnical investigation and testing — Laboratory testing of soil —

Part 5: Incremental loading oedometer test

1 Scope

This document specifies methods for the determination of the compressibility characteristics of soils by incremental loading in an oedometer.

This document is applicable to the laboratory determination of the compression and deformation characteristics of soil within the scope of geotechnical investigations.

The oedometer test is carried out on a cylindrical test specimen that is confined laterally by a rigid ring. The specimen is subjected to discrete increments of vertical axial loading or unloading and is allowed to drain axially from the top and bottom surfaces. Tests may be carried out on undisturbed, remoulded, recompacted or reconstituted specimens.

The stress paths and drainage conditions in foundations are generally three dimensional and differences can occur in the calculated values of both the magnitude and the rate of settlement.

The small size of the specimen generally does not adequately represent the fabric features present in natural soils.

Analysis of consolidation tests is generally based on the assumption that the soil is saturated. In case of unsaturated soils, some of the derived parameters may not be appropriate

NOTE This document fulfils the requirements of the determination of the compressibility characteristics of soils in the oedometer for geotechnical investigation and testing in accordance with EN 1997-1 and EN 1997-2.

2 Normative references

The following documents are referred to in 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 14688-1, *Geotechnical investigation and testing — Identification and classification of soil — Part 1: Identification and description*

ISO 17892-1, *Geotechnical investigation and testing — Laboratory testing of soil — Part 1: Determination of water content*

ISO 17892-2, *Geotechnical investigation and testing — Laboratory testing of soil — Part 2: Determination of bulk density*

ISO 17892-3, *Geotechnical investigation and testing — Laboratory testing of soil — Part 3: Determination of particle density*

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