

STN	Geotechnický prieskum a skúšky Pomenovanie a klasifikácia zemín Časť 2: Princípy klasifikácie (ISO 14688-2: 2017)	STN EN ISO 14688-2 72 1003
------------	--	--

Geotechnical investigation and testing - Identification and classification of soil - Part 2: Principles for a classification (ISO 14688-2:2017)

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

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/18

Obsahuje: EN ISO 14688-2:2018, ISO 14688-2:2017

Oznámením tejto normy sa ruší
STN EN ISO 14688-2 (72 1003) z júla 2005

126807

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 14688-2

February 2018

ICS 13.080.05; 93.020

Supersedes EN ISO 14688-2:2004

English Version

**Geotechnical investigation and testing - Identification and
classification of soil - Part 2: Principles for a classification
(ISO 14688-2:2017)**

Reconnaissance et essais géotechniques - Identification
et classification des sols - Partie 2: Principes pour une
classification (ISO 14688-2:2017)

Geotechnische Erkundung und Untersuchung -
Benennung, Beschreibung und Klassifizierung von
Boden - Teil 2: Grundlagen für Bodenklassifizierungen
(ISO 14688-2:2017)

This European Standard was approved by CEN on 20 November 2017.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN ISO 14688-2:2018 (E)

Contents	Page
European foreword.....	3

European foreword

This document (EN ISO 14688-2:2018) 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 August 2018, and conflicting national standards shall be withdrawn at the latest by August 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 14688-2:2004.

According to the CEN-CENELEC Internal Regulations, the national standards organizations 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 14688-2:2017 has been approved by CEN as EN ISO 14688-2:2018 without any modification.

INTERNATIONAL STANDARD

ISO
14688-2

Second edition
2017-12

Geotechnical investigation and testing — Identification and classification of soil —

Part 2: Principles for a classification

*Reconnaissance et essais géotechniques — Identification et
classification des sols —*

Partie 2: Principes pour une classification



Reference number
ISO 14688-2:2017(E)

© ISO 2017

ISO 14688-2:2017(E)**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2017, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Principles of soil classifications	4
4.1 General	4
4.2 Particle size fractions	6
4.3 Particle size distribution (grading)	6
4.4 Plasticity	6
4.5 Organic content	7
4.6 Carbonate content	8
5 Other principles suitable for soil classification	8
5.1 General	8
5.2 Correlations of relative density terms for coarse soils	8
5.3 Undrained shear strength of fine soils	9
5.4 Sensitivity	9
5.5 Consistency index	9
5.6 Other parameters	10
Bibliography	11

ISO 14688-2:2017(E)**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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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.

This document was prepared by Technical Committee ISO/TC 182, *Geotechnics*.

This second edition cancels and replaces the first edition (ISO 14688-2:2004), which has been technically revised. It also incorporates the Amendment ISO 14688-2:2004/Amd 1:2013.

A list of all parts in the ISO 14688 series can be found on the ISO website.

Introduction

This document gives the means by which soils can be classified into groups of similar composition and geotechnical properties based on the results of field and laboratory tests with respect to their suitability for geotechnical engineering purposes.

Prior to classification, ISO 14688-1 gives details of the procedures that should be followed in the identification and description of soils.

Geotechnical investigation and testing — Identification and classification of soil —

Part 2: Principles for a classification

1 Scope

This document specifies the basic principles for classification of those material characteristics most commonly used for soils for engineering purposes. It is intended to be read in conjunction with ISO 14688-1, which gives rules for the identification and description of soils. The relevant characteristics could vary and therefore, for particular projects or materials, more detailed subdivisions of the descriptive and classification terms could be appropriate. Due to differences in local geological conditions, practices to enhance relevant classification criteria are used.

The classification principles established in this document allow soils to be classified into groups of similar composition and geotechnical properties, based on the results of field and laboratory tests with respect to their suitability for geotechnical engineering purposes.

This document is applicable to natural soil *in situ*, natural soil reworked artificially and synthetic materials. A more detailed classification specific to use in earthworks is given in EN 16907-2.

NOTE 1 Identification and description of rocks are covered by ISO 14689. Identification and description of materials intermediate between soil and rock are carried out using the procedures in ISO 14688-1, this document and ISO 14689, as appropriate.

NOTE 2 The identification and classification of soil for pedological purposes, as well as in the framework of measurements for soil protection and for remediation of contaminated areas, is covered by ISO 25177.

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 14688-1:2017, *Geotechnical investigation and testing — Identification and classification of soil — Part 1: Identification and description*

ISO 14689, *Geotechnical investigation and testing — Identification, description and classification of rock*

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*

ISO 17892-4, *Geotechnical investigation and testing — Laboratory testing of soil — Part 4: Determination of particle size distribution*

ISO 17892-5, *Geotechnical investigation and testing — Laboratory testing of soil — Part 5: Incremental loading oedometer test*

ISO 14688-2:2017(E)

ISO 17892-6, *Geotechnical investigation and testing — Laboratory testing of soil — Part 6: Fall cone test*

ISO/TS 17892-7, *Geotechnical investigation and testing — Laboratory testing of soil — Part 7: Unconfined compression test on fine-grained soils*

ISO/TS 17892-8, *Geotechnical investigation and testing — Laboratory testing of soil — Part 8: Unconsolidated undrained triaxial test*

ISO/TS 17892-9, *Geotechnical investigation and testing — Laboratory testing of soil — Part 9: Consolidated triaxial compression test*

ISO/TS 17892-10, *Geotechnical investigation and testing — Laboratory testing of soil — Part 10: Direct shear tests*

ISO/TS 17892-11, *Geotechnical investigation and testing — Laboratory testing of soil — Part 11: Permeability tests*

ISO/TS 17892-12, *Geotechnical investigation and testing — Laboratory testing of soil — Determination of Atterberg limits*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN