

STN	Zemné práce Chemické skúšky Časť 1: Stanovenie obsahu organických látok stratou žihaním	STN EN 17685-1 73 3003
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Earthworks - Chemical tests - Part 1: Determination of loss on ignition

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

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Bestimmung des Glühverlusts

This European Standard was approved by CEN on 23 January 2023.

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EN 17685-1:2023 (E)

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European foreword

This document (EN 17685-1:2023) has been prepared by Technical Committee CEN/TC 396 “Earthworks”, the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by September 2023, and conflicting national standards shall be withdrawn at the latest by September 2023.

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EN 17685-1:2023 (E)**Introduction**

The method described in this document has been developed from EN 15935:2021 which was prepared by CEN/TC 444 "Environmental characterization of solid matrices". Adjustments were made to make the method more suitable for the materials used in earthworks, particularly for the pretreatment of the sample.

This document specifies a method for the determination of the loss on ignition (w_{LOI}) of fine, intermediate, composite and coarse soils, organic soils and anthropogenic materials (according to EN 16907-2) after ignition under air at 550°C. A method is given in Annex B in order to estimate the organic matter content (C_{OM}) from the value of w_{LOI} . The organic matter content C_{OM} is used for the classification of soils with organic matter content C_{OM} greater than 2 % according EN 16907-2 (Table 4 in EN 16907-2:2018).

Other methods to estimate the organic content is e.g. wet burning with H_2O_2 or $KMnO_4$.

1 Scope

This document specifies a method for the determination of the loss on ignition (w_{LOI}) of fine, intermediate, composite and coarse soils, organic soils and anthropogenic materials (according to EN 16907-2) after ignition under air at 550°C.

NOTE The loss of mass suffered by these materials at 550 °C is usually due to the release of volatile compounds, water (absorbed, crystalized or structural) and gases from decomposition of organic matter and inorganic substances such as sulfur, sulfides or hydroxides (e.g. H₂O, CO₂, SO₂).

A method is given in Annex B in order to estimate the organic matter content (C_{OM}) from the value of w_{LOI} for clayey soils.

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.

EN ISO 17892-12, *Geotechnical investigation and testing - Laboratory testing of soil - Part 12: Determination of liquid and plastic limits (ISO 17892-12)*

ISO 3310-1, *Test sieves — Technical requirements and testing — Part 1: Test sieves of metal wire cloth*

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