



SLOVENSKI STANDARD
oSIST prEN ISO 18708:2024
01-december-2024

Trdna alternativna goriva - Določanje nasipne gostote (ISO/DIS 18708:2024)

Solid recovered fuels - Determination of bulk density (ISO/DIS 18708:2024)

Feste Sekundärbrennstoffe - Bestimmung der Schüttdichte (ISO/DIS 18708:2024)

Combustibles solides de récupération - Détermination de la masse volumique apparente (ISO/DIS 18708:2024)

Ta slovenski standard je istoveten z: prEN ISO 18708

ICS:

75.160.10 Trda goriva

Solid fuels

oSIST prEN ISO 18708:2024

en,fr,de



DRAFT International Standard

ISO/DIS 18708

Solid recovered fuels — Determination of bulk density

*Combustibles solides de récupération — Détermination de la
densité apparente*

ICS: 75.160.10

ISO/TC 300

Secretariat: **SFS**

Voting begins on:
2024-10-21

Voting terminates on:
2025-01-13

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[oSIST prEN ISO 18708:2024](https://standards.iteh.ai/catalog/standards/sist/928c8da1-0cf6-4e91-8a31-349d0eac153b/osist-pren-iso-18708-2024)

<https://standards.iteh.ai/catalog/standards/sist/928c8da1-0cf6-4e91-8a31-349d0eac153b/osist-pren-iso-18708-2024>

This document is circulated as received from the committee secretariat.

ISO/CEN PARALLEL PROCESSING

Reference number
ISO/DIS 18708:2024(en)

THIS DOCUMENT IS A DRAFT CIRCULATED FOR COMMENTS AND APPROVAL. IT IS THEREFORE SUBJECT TO CHANGE AND MAY NOT BE REFERRED TO AS AN INTERNATIONAL STANDARD UNTIL PUBLISHED AS SUCH.

IN ADDITION TO THEIR EVALUATION AS BEING ACCEPTABLE FOR INDUSTRIAL, TECHNOLOGICAL, COMMERCIAL AND USER PURPOSES, DRAFT INTERNATIONAL STANDARDS MAY ON OCCASION HAVE TO BE CONSIDERED IN THE LIGHT OF THEIR POTENTIAL TO BECOME STANDARDS TO WHICH REFERENCE MAY BE MADE IN NATIONAL REGULATIONS.

RECIPIENTS OF THIS DRAFT ARE INVITED TO SUBMIT, WITH THEIR COMMENTS, NOTIFICATION OF ANY RELEVANT PATENT RIGHTS OF WHICH THEY ARE AWARE AND TO PROVIDE SUPPORTING DOCUMENTATION.

© ISO 2024

ISO/DIS 18708:2024(en)

iTeh Standards (<https://standards.iteh.ai>) Document Preview

[oSIST prEN ISO 18708:2024](https://standards.iteh.ai/catalog/standards/sist/928c8da1-0cf6-4e91-8a31-349d0eac153b/osist-pren-iso-18708-2024)

<https://standards.iteh.ai/catalog/standards/sist/928c8da1-0cf6-4e91-8a31-349d0eac153b/osist-pren-iso-18708-2024>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2024

All rights reserved. Unless otherwise specified, or required in the context of its implementation, 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
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

ISO/DIS 18708:2024(en)

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	1
5 Apparatus	1
5.1 Measurement containers.....	1
5.1.1 General.....	1
5.1.2 Large container.....	2
5.1.3 Medium container.....	2
5.1.4 Small container.....	2
5.2 Scale/Balances.....	3
5.2.1 Scale/Balance 1.....	3
5.2.2 Scale/Balance 2.....	3
5.3 Scantling.....	3
5.4 Wooden board.....	3
6 Sample collection method	3
7 Operation	3
7.1 Determination of the container volume.....	3
7.2 Combination of container size and dropping height.....	4
7.2.1 Fluff.....	4
7.2.2 Pellet.....	4
7.3 Measurement procedure.....	5
8 Calculation of bulk density	5
9 Performance characteristics	5
9.1 General.....	5
9.2 Repeatability limit.....	5
9.3 Reproducibility limit.....	6
10 Test reports	6
Annex A (informative) Example of an apparatus for controlled shock exposure	7
Annex B (informative) Results of interlaboratory test	8
Annex C (informative) Report of experimental study on the determination of bulk density	9
Bibliography	21

ISO/DIS 18708:2024(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 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO has not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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

For an explanation of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 300, *Solid recovered materials, including solid recovered fuels*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

oSIST prEN ISO 18708:2024

<https://standards.iteh.ai/catalog/standards/sist/928c8da1-0cf6-4e91-8a31-349d0eac153b/osist-pren-iso-18708-2024>

ISO/DIS 18708:2024(en)**Introduction**

Bulk density is one of the main quality parameters of solid recovered fuels (SRF). It is needed e.g. in a sampling process (volume of sampling tools, volume primary sample), in assessing transport capacity or storage space required or energy density (MWh/m³) of SRF. Bulk density is not an absolute value, therefore conditions for its determination are standardised in order to gain comparative measuring results.

This document describes the testing method for bulk density of SRF so as to produce solidified fuels from the combustibles in waste by processing, such as compressing, drying, crushing, moulding and solidifying, and utilize them as an energy source to thereby utilize the application and facilitate the users' convenience.

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[oSIST prEN ISO 18708:2024](https://standards.iteh.ai/catalog/standards/sist/928c8da1-0cf6-4e91-8a31-349d0eac153b/osist-pren-iso-18708-2024)

<https://standards.iteh.ai/catalog/standards/sist/928c8da1-0cf6-4e91-8a31-349d0eac153b/osist-pren-iso-18708-2024>

Solid recovered fuels — Determination of bulk density

1 Scope

This document defines a method of determining bulk density of solid recovered fuels by the use of a standard measuring container. This method is applicable to all SRFs with a nominal top size of particle less than 1/3 of the container diameter specified in this document.

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 21637, *Solid recovered fuels — Vocabulary*

ISO 21645, *Solid recovered fuels — Methods for sampling*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 21637 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

bulk density

the mass per unit volume of particulate matter or material

4 Principle

A standard container is filled with the test portion of a given size and shape, densified by defined shock exposure and weighed afterwards. The bulk density is calculated from the net weight per standard volume and reported with the determined moisture content.

5 Apparatus

5.1 Measurement containers

5.1.1 General

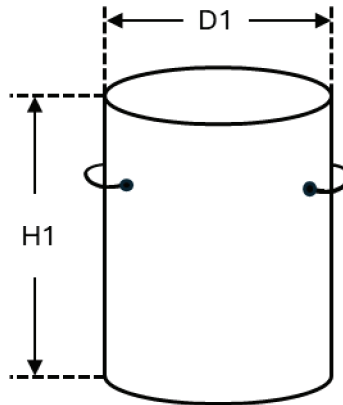
The container shall be cylindrically shaped and manufactured of a shock resistant, smooth-surfaced material. The container shall be resistant to deformation in order to prevent any variation in shape and volume. The container shall be waterproof. For easier handling, grips can be fixed externally.

The height-diameter-ratio shall be in the range from 1,25 to 1,50.

ISO/DIS 18708:2024(en)

5.1.2 Large container

A large container with a filling volume of 50 L, as in [Figure 1](#).

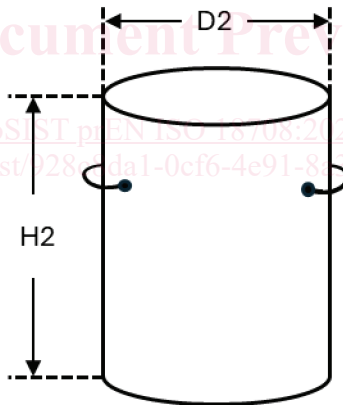
**Key**

- D1 inner diameter 360 mm
H1 inner height 491 mm

Figure 1 — Large standardized measuring container

5.1.3 Medium container

A medium container with a filling volume of 20 L, as in [Figure 2](#).

**Key**

- D2 inner diameter 265 mm
H2 inner height 362 mm

Figure 2 — Medium standardized measuring container

5.1.4 Small container

A small container with a filling volume of 5 L, as in [Figure 3](#).