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Solid recovered fuels - Specifications and classes (ISO 21640:2021)

EESTI STANDARDI EESSÕNA

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Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 26.05.2021.	Date of Availability of the European standard is 26.05.2021.
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ICS 75.160.10

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 21640

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English Version

Solid recovered fuels - Specifications and classes (ISO 21640:2021)

Combustibles solides de récupération - Spécifications et classes (ISO 21640:2021)

Feste Sekundärbrennstoffe - Spezifikationen und Klassen (ISO 21640:2021)

This European Standard was approved by CEN on 1 May 2021.

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Ref. No. EN ISO 21640:2021 E

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European foreword

This document (EN ISO 21640:2021) has been prepared by Technical Committee ISO/TC 300 "Solid recovered materials, including solid recovered fuels" in collaboration with Technical Committee CEN/TC 343 “Solid Recovered Fuels” the secretariat of which is held by SFS.

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of an identical text or by endorsement, at the latest by November 2021, and conflicting national standards shall be withdrawn at the latest by November 2021.

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Endorsement notice

The text of ISO 21640:2021 has been approved by CEN as EN ISO 21640:2021 without any modification.

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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 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 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.

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Introduction

The objective of this document is to provide a common classification and specification system for solid recovered fuels (SRF) to enable efficient trading of SRF, to promote their safe use in energy conversion activities and to increase the public trust. The document facilitates a good understanding between seller and buyer, supports purchase, trans border movements, use and supervision as well as an effective communication with equipment manufacturers. The classification and specification system support authority permission procedures and ease the reporting on environmental issues.

SRF are produced from non-hazardous waste. The input waste can be production specific waste, municipal solid waste, industrial waste, commercial waste, construction and demolition waste, sewage sludge etc. It is thus obvious that SRF are a heterogeneous group of fuels. A well-defined system for classification and specification is therefore of significant importance to reach the above-mentioned objectives and intentions.

This document covers all types of SRF and will thus have a wide field of application. The aim of producing a solid recovered fuel is to use it for energy purposes at the highest possible energy efficiency.

This document describes the compliance rules for SRF according to this classification system. Classification enables statistical information of SRF properties in the market, thus increasing transparency in the use of non-hazardous waste in SRF and demonstrating development of this business field.

This document also describes how the supplier can establish specifications and a declaration of conformity to the different ISO standards for SRF.

It is important to emphasise that despite the standardisation of SRF, the standard should not be interpreted as end-of-waste criteria. Such criteria can be set at national or regional levels, but then in legislation and not in this document. Also, it should be noted that the waste used for the SRF production should be such waste streams that are not suitable for re-use, preparation for re-use or efficient material recycling.

Figure 1 illustrates a simplified flow chain for SRF, from input of non-hazardous waste to end use of SRF. This document has an interface to all the stages in the chain, from point of acceptance to point of delivery. The fuel is not considered an SRF until it is specified and classified according to this document. Requirements for how the input waste is collected and how to use the SRF are not part of this document.

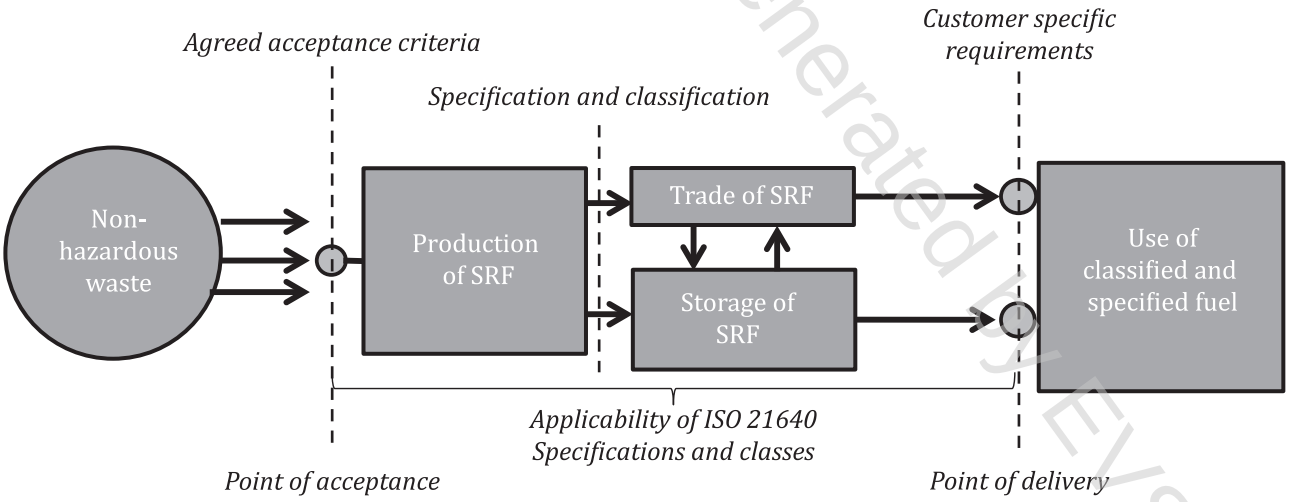

Figure 1 — Solid recovered fuels chain – This document on specifications and classes is applicable after production up to the point of delivery

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NOTE This document is applicable to trading and storage of SRF. However, if during storage or trade the SRF is mixed with other SRF or other fuels, then the classification and specifications are no longer valid. If sold further, then the mixing would constitute an SRF production.

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Solid recovered fuels — Specifications and classes

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1 Scope

This document specifies a classification system for solid recovered fuels (SRF), and a template containing a list of characteristics for the specification of their properties, enabling trade and use of SRF supporting the protection of the environment.

SRF are produced from non-hazardous waste.

NOTE 1 Untreated municipal solid waste as such cannot be considered SRF. Untreated municipal solid waste can however be feedstock to plants producing SRF.

NOTE 2 Chemically treated solid biofuels that do not contain halogenated organic compounds or heavy metals at levels higher than those in typical virgin material, can be defined as solid biofuels and thus be part of the standard series ISO 17225[1].

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*

ISO 21654, *Solid recovered fuels — Determination of calorific value*

ISO 21656, *Solid recovered fuels — Determination of ash content*

ISO 21660-3*Solid recovered fuels — Determination of moisture content using the oven dry method — Part 3: Moisture in general analysis sample*

3 Terms and definitions

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

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
classification of solid recovered fuels
categorizing of solid recovered fuels into classes focusing on the key properties – NCV, Cl and Hg that are defined by boundary values

3.2
specification of solid recovered fuels
list of properties that characterizes solid recovered fuels

Note 1 to entry: Templates for such specifications are given in Annex A in this document.

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