



# SLOVENSKI STANDARD

## SIST-TS CEN/TS 15357:2007

01-marec-2007

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### Trdno alternativno gorivo - Terminologija, definicije in opisi

Solid recovered fuels - Terminology, definitions and descriptions

Feste Sekundärbrennstoffe - Terminologie, Definitionen und Beschreibungen

Combustibles solides de récupération - Terminologie, définitions et descriptions

Ta slovenski standard je istoveten z: **CEN/TS 15357:2006**

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01.040.75	Naftna in sorodna tehnologija (Slovarji)	Petroleum and related technologies (Vocabularies)
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English Version

## Solid recovered fuels - Terminology, definitions and descriptions

Combustibles solides de récupération - Terminologie,  
définitions et descriptions

Feste Sekundärbrennstoffe - Terminologie, Definitionen  
und Beschreibungen

This Technical Specification (CEN/TS) was approved by CEN on 30 January 2006 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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

**Management Centre: rue de Stassart, 36 B-1050 Brussels**

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## Foreword

This document (CEN/TS 15357:2006) has been prepared by Technical Committee CEN/TC 343 “Solid recovered fuels”, the secretariat of which is held by SFS.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this CEN Technical Specification: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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## Introduction

The drafting of this Technical Specification has been performed in accordance with ISO 10241:1992 [1]

Terms are arranged in alphabetic order.

This Technical Specification aims to provide a comprehensive solid recovered fuel glossary, which adopts, when available, definitions from applicable Directives providing, when appropriate, notes to make these definitions understandable without reference to other documents.

Attention is drawn to the fact that the terms:

**biomass, biodegradable, co-incineration plant, emission, incineration plant, renewable energy source, waste, waste supplier**

included in this Technical Specification are defined in the following Directives (see Bibliography):

- Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste [2];
- Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market [3];
- Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste [4];
- Council Directive 75/442/EEC of 15 July 1975 on waste and its following amendments [5].

DG XI Director General communicated to CEN in 1996 that "when a definition exists in a Directive, it not only applies strictly for the purposes of the Directive, but also to all adjacent work such as that of CEN. No other definition can be used if not agreed by the Council".

As a consequence, definitions given in European Standards, Technical Specifications or CEN reports cannot contradict definitions contained in European Legislation.

Many terms defined by EN ISO 9000 are used in the standardisation work within the scope of CEN/TC 343, especially in the CEN/TS 15358 *Solid recovered fuels – Quality management systems – Particular requirements for their application to the production of solid recovered fuels*.

Therefore an informative list of terms defined by EN ISO 9000 is given in Annex A.

## 1 Scope

This Technical Specification defines terms concerned in all standardisation work within the scope of CEN/TC 343, i.e. terms used in the field of production and trade of solid recovered fuels that are prepared from non-hazardous waste.

NOTE Solid biofuels are covered by the scope of CEN/TC 335.

The embedding of the scope within the waste/solid recovered fuels field is given in Figure 1.

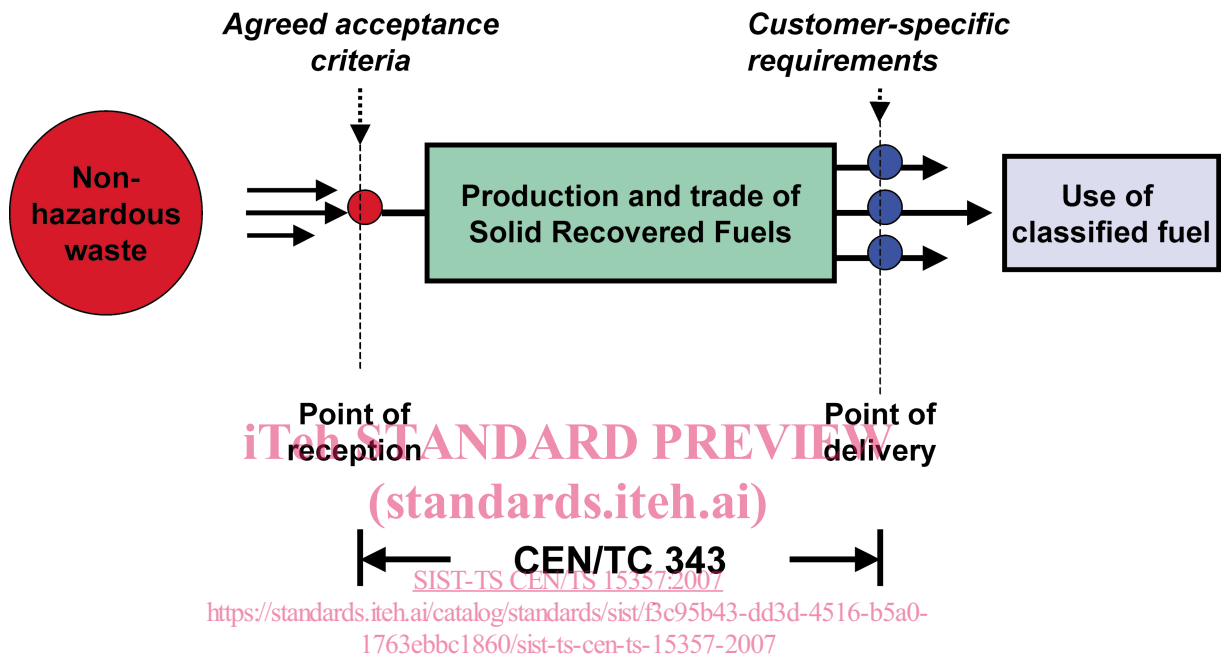


Figure 1 — Linkage between selected terms in the field of waste, recovered fuels and conversion to end-use energy

Definitions in other standards with a scope different from the scope of this Technical Specification can be different from the definitions in this Technical Specification.

## 2 Normative references

The following referenced documents are indispensable for the application of this Technical Specification. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN ISO 9000:2005, *Quality management systems — Fundamentals and vocabulary (ISO 9000:2000)*

## 3 Terms and definitions

For the purposes of this Technical Specification, the terms and definitions given in EN ISO 9000:2005 and the following apply.

### 3.1

#### as received

based on material at delivery

**3.2 ash content**  
inorganic mass remaining after complete combustion of a **solid recovered fuel** under specified conditions expressed as a percentage of the mass of the **dry matter** in the **solid recovered fuel**

**3.3 ash deformation temperature**  
temperature at which first signs of rounding due to melting, of the tip or edges of the test piece occur

[CEN/TS 14588:2003] [6]

**3.4 ash flow temperature**  
temperature at which the ash is spread out over the supporting tile in a layer, the height of which is half of the height of the test piece at the hemisphere temperature

**3.5 ash fusibility; ash melting behaviour**  
characteristic physical state of the ash obtained by heating under specific conditions

[CEN/TS 14588:2003]

NOTE 1 Ash fusibility is determined under either oxidizing or reducing conditions.

NOTE 2 See also **ash deformation temperature**, **ash flow temperature**, **ash hemisphere temperature**, and **ash sphere temperature**.

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**3.6 ash hemisphere temperature**  
temperature at which the height of a test piece, prepared from ash by a specific procedure, is equal to half the width of the base, and its shape becomes approximately hemispherical

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[CEN/TS 14588:2003]

**3.7 ash sphere temperature**  
temperature where the height of a pyramidal and truncated-cone test pieces is equal to the width of the base, or the edges of a cubical or cylindrical test pieces are completely round with the height remaining unchanged

[CEN/TS 14588:2003]

**3.8 biodegradable**<sup>1)</sup>  
capable of undergoing anaerobic or aerobic decomposition

NOTE 1 Biodegradable is understood as material capable of undergoing anaerobic or aerobic decomposition under conditions naturally occurring in the biosphere

NOTE 2 See also CEN/TR 14980 [15].

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<sup>1)</sup> This term is defined in Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste [2].



**3.9****biofuel**

**fuel** produced directly or indirectly from **biomass**

[CEN/TS 14588:2003]

**3.10****biogenic**

produced by living organisms in natural processes but not fossilised or derived from fossil resources

NOTE 1 The term biogenic is used to denote CO<sub>2</sub> -neutral material when degraded under aerobic conditions (e.g. combustion, **incineration**).

NOTE 2 See also CEN/TR 14980.

**3.11****biomass** <sup>2)</sup>

**biodegradable** fraction of products, **waste** and residues from agriculture (including vegetal and animal substances) forestry and related industries, as well as the **biodegradable** fraction of industrial and **municipal waste**

NOTE 1 Biomass is understood as material of biological origin excluding material embedded in geological formation or transformed to fossil.

NOTE 2 See also CEN/TR 14980.

**3.12****bridging**

tendency of **particles** to form a stable arch across an opening and hindering flow

[CEN/TS 14588:2003]

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**3.13****briquette**

block or cylinder of **solid recovered fuel** produced by agglomerating loose material

NOTE 1 The smallest dimension usually is > 25 mm.

NOTE 2 See also **pellet**.

**3.14****bulk density**

mass of a portion of a **solid recovered fuel** divided by the volume of the container which is filled by that portion under specific conditions

NOTE Adapted from CEN/TS 14588:2003.

**3.15****calorific value, heating value**

energy amount per unit mass or volume released on complete combustion

[CEN/TS 14588:2003]

NOTE See also **gross calorific value**, **energy density**, and **net calorific value**

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<sup>2)</sup> This term is defined in Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market [3].

**3.16  
chips**

piece with a magnitude of a few centimetres formed by cutting tools

NOTE chips are normally < few centimetres.

**3.17  
classification of solid recovered fuel**

grouping of **solid recovered fuels** into classes

NOTE The classes are defined by boundary values for chosen fuel characteristics to be used for trading as well as for information of permitting authorities and other interested parties.

**3.18  
coefficient of variation**

estimate of the standard deviation of a population from a **sample** of n results divided by the mean of that **sample**. Frequently stated as a percentage

NOTE Adapted from Eurachem/Citac Guide CG 4 [13].

**3.19  
co-incineration**

use of **waste** as a regular or additional **fuel** in a **co-incineration plant**

**3.20  
co-incineration plant**<sup>3)</sup>

stationary or mobile plant whose main purpose is the generation of energy or production of material products and:

— which uses **wastes** as a regular or additional fuel; or

— in which **waste** is thermally treated for the purpose of disposal

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If **co-incineration** takes place in such a way that the main purpose of the plant is not the generation of energy or production of material products but rather the thermal treatment of waste, the plant shall be regarded as an **incineration plant** within the meaning of point 4. This definition covers the site and the entire plant including all co-incineration lines, **waste** reception, storage, on site pre-treatment facilities, **waste, fuel**-and air-supply systems, boiler, facilities for the treatment of exhaust gases, on-site facilities for treatment or storage of residues and waste water, stack devices and systems for controlling **incineration** operations, recording and monitoring **incineration** conditions;

NOTE 1 See also **incineration plant**.

NOTE 2 Point 4 of the Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste gives the definition of "**incineration plant**".

**3.21  
collection tray**

tray used in manual **sampling** to collect the material for **sampling** from the drop flow or a **batch** transport system, or, in mechanical **sampling**, from a **batch** transport system

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<sup>3)</sup> This term is defined in Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste [4].

**3.22****combined sample**

**sample** consisting of all the **increments** taken from a **lot**

NOTE The **increments** may be reduced by division before being added to the combined sample.

**3.23****common sample**

**sample** collected for more than one intended use

[CEN/TS 14588:2003]

**3.24****component of solid recovered fuel**

part or portion of a **solid recovered fuel** that can be separated by hand or by using simple physical means

**3.25****composition of solid recovered fuel**

break down of **solid recovered fuels** by types of contained materials, e.g. wood, paper, board, textiles, plastics, rubber.

**3.26****delivery agreement**

contract for **solid recovered fuels** trade, which specifies e.g. origin, quality and quantity of the **fuel**, as well as delivery terms

**3.27****digestion**

mineralisation of the organic matter of a sample and dissolution of its mineral part, more or less completely, when reacted with a reagent mixture

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**3.28****digestion vessel**

special flask where the test portion and the acid mixture are filled in and the digestion is performed

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**3.29****distribution factor**

correction factor for the **particle size distribution** of the material to be sampled

**3.30****drop flow**

material flow falling over an overflow point or a drop point in a transport system

**3.31****dry**

calculation basis in which the **solid recovered fuel** is free from **moisture**

**3.32****dry ash free**

calculation basis in which the **solid recovered fuel** is free from **moisture** and inorganic matter

**3.33****drying**

process of removing water either from a sample or from a laboratory sample

NOTE For the purpose of **test sample** preparation, it may be useful to remove just the amount of water that could interfere with other processes involved (e.g. during crushing or milling). In order to minimise the alteration of the **solid recovered fuel** during **test portion** preparation, removing the total amount of water present is not necessarily needed.