TECHNICAL SPECIFICATION

SPÉCIFICATION TECHNIQUE

TECHNISCHE SPEZIFIKATION

FINAL DRAFT
prCEN/TS 15359

October 2005

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English Version

Solid recovered fuels - Specifications and classes

Combustibles solides de récupération - Spécification et classes

Feste Sekundärbrennstoffe - Spezifikationen und Klassen

This draft Technical Specification is submitted to CEN members for formal vote. It has been drawn up by the Technical Committee CEN/TC 343.

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

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Foreword

This Technical Specification (prCEN/TS 15359:2005) has been prepared by Technical Committee CEN/TC 343 “Solid recovered fuels”, the secretariat of which is held by SFS.

This Technical Specification is currently submitted to the Formal Vote.

The scope for this Technical Specification is based on the mandate M/325 given by the European Commission to CEN on 2002-08-26.

Introduction

The objective of this Technical Specification is to provide unambiguous and clear classification and specification principles for Solid Recovered Fuels (SRFs). The Technical Specification aims at serving as a tool to enable efficient trading of SRFs, promoting their acceptability on the fuel market and increasing the public trust. The Technical Specification will facilitate a good understanding between seller and buyer, facilitate purchase, transborder movements, use and supervision as well as a good communication with equipment manufacturers. It will also facilitate authority permission procedures and ease the reporting on the use of fuels from renewable energy sources and on other environmental issues.

SRFs are produced from non hazardous waste.[1)] 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 SRFs are a heterogeneous group of fuels. A well defined system for classification and specification is therefore of great importance to reach the above mentioned objectives and intentions.

This Technical Specification covers all types of SRFs and will thus have a wide field of application. It supports the objectives and implementation of the EU waste hierarchy as defined in article 3.1 of the waste framework directive 75/442 modified by the directive 91/156.

This Technical Specification describes the compliance rules which a SRF has to meet to be classified according to the classification system. It also describes how the supplier can establish a declaration of conformity to the different Technical Specifications for SRFs (see Clause 2).

Figure 1 illustrates a simplified flow chain for SRFs, from input of waste to end use of SRFs. This Technical Specification has an interface to all the stages in the chain, but SRF classification and specification are applicable at the point of delivery as shown in the figure. Requirements for how the input waste is collected and how to use the fuel are not part of this Technical Specification.

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1) Hazardous waste is defined in Directive on hazardous waste (91/689/EEC) and its amendments, and are elucidated and exemplified in the waste list ((Commission decision 2000/532) and its amendments, in particular 2001/118/EC).

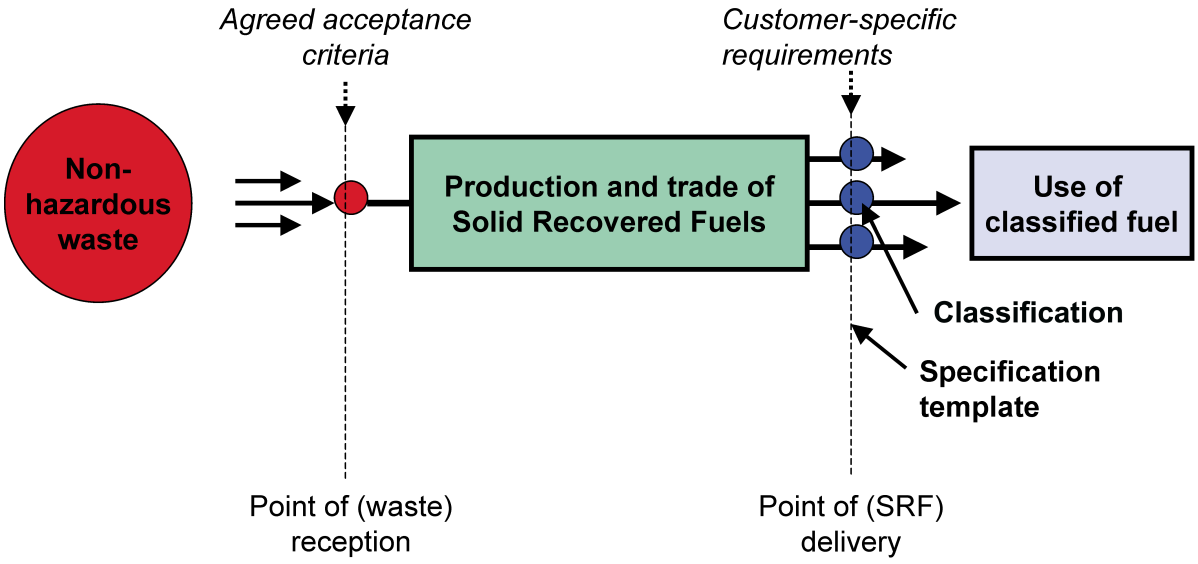

Figure 1 — Solid recovered fuels chain — The Technical Specification on specification and classes is applicable at the point of delivery

1 Scope

This Technical Specification specifies a classification system for SRFs and a template for the specification of their properties.

SRFs are produced from non-hazardous waste.

NOTE 1 Solid bio-fuels excluded from the Waste Incineration Directive (2000/76/EC) are not included in the scope of this Technical Specification. These are dealt with in CEN/TC 335 “Solid biofuels”. Waste wood from demolition of buildings and civil engineering installations is, however, included in the scope.

NOTE 2 Untreated municipal solid waste is not included in the scope of 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.

prCEN/TS 15375:2005, *Solid recovered fuels — Terminology, definitions and descriptions*

prCEN/TS xxxxx[2)], *Solid recovered fuels — Methods for sampling*

prCEN/TS xxxxx[3)], *Solid recovered fuels — Methods for laboratory sample preparation*

prCEN/TS xxxxx[4)], *Solid recovered fuels — Method for the determination of the biomass content*

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2) To be published. Registered under WI 00343028.

3) To be published. Registered under WI 00343029.

4) To be published. Registered under WI 00343005.

prCEN/TS xxxxx[5)], *Solid recovered fuels — Methods for the determination of calorific values*

prCEN/TS xxxxx[6)], *Solid recovered fuels —Determination of moisture content using the oven dry method — Part 1: Determination of total moisture by a reference method*

prCEN/TS xxxxx[7)], *Solid recovered fuels —Determination of moisture content using the oven dry method — Part 2: Determination of total moisture by a simplified method*

prCEN/TS xxxxx[8)], *Solid recovered fuels —Determination of moisture content using the oven dry method — Part 3: Moisture in general analysis sample*

prCEN/TS xxxxx[9)], *Solid recovered fuels — Method for the determination of ash content*

prCEN/TS xxxxx[10)], *Solid recovered fuels —Determination of particle size and particle size distribution by screen method*

prCEN/TS xxxxx[11)], *Solid recovered fuels — Methods for the determination of sulphur (S), chlorine (Cl), fluorine (F) and bromine (Br) content*

prCEN/TS xxxxx[12)], *Solid recovered fuels — Method for the determination of the content of trace elements (As, Ba, Be, Cd, Co, Cr, Cu, Hg, Mo, Mn, Ni, Pb, Sb, Se, V and Zn)*

prCEN/TS xxxxx[13)], *Solid recovered fuels — Methods for the preparation of the test sample from the laboratory sample*

3 Terms and definitions

For the purpose of this Technical Specification, the terms and definitions given in prCEN/TS 15375:2005 and the following apply.

NOTE The terms and definitions 3.1 to 3.9 are identical with the ones given in prCEN/TS 15375:2005.

3.1
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.

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5) To be published. Registered under WI 00343008.

6) To be published. Registered under WI 00343030.

7) To be published. Registered under WI 00343031.

8) To be published. Registered under WI 00343032.

9) To be published. Registered under WI 00343012.

10) To be published. Registered under WI 00343033.

11) To be published. Registered under WI 00343022.

12) To be published. Registered under WI 00343025.

13) To be published. Registered under WI 00343027.

3.2
composition of solid recovered fuel
break down of solid recovered fuels by types of contained materials, e.g. wood, paper, board, textiles, plastics, rubber

3.3
delivery agreement
contract for solid recovered fuels trade, which specifies e.g. origin, quality and quantity of the fuel, as well as delivery terms

3.4
lot
defined quantity of solid recovered fuel for which the quality is to be determined

NOTE Adapted from CEN/TS 14588:2003 [8].

3.5
net calorific value
calculated value of the energy of combustion for unit mass of a solid recovered fuel burned in oxygen in calorimetric bomb under such conditions that all the water remains as water vapour at 0,1 MPa

NOTE Old term is lower heating value.

3.6
point of delivery
location specified in the delivery agreement, at which the proprietary rights of and responsibility for a solid recovered fuel are transferred from one organisation to an other

3.7
solid recovered fuel
solid fuel prepared from non-hazardous waste to be utilised for energy recovery in incineration or co-incineration plants, and meeting the classification and specification requirements laid down in prCEN/TS 15359

NOTE "Prepared" here means processed, homogenised and up-graded to a quality that can be traded amongst producers and users.

3.8
specification
document stating requirements

[EN ISO 9000:2000] [9]

3.9
specification of solid recovered fuels
specification for the properties characterising a solid recovered fuel

NOTE A template for such specification is given in Annex A of prCEN/TS 15359.

3.10
supplier
organisation or person that provides a product

4 Symbols and abbreviations

The symbols and abbreviations used in this Technical Specification comply with the SI system of units as far as possible.

Item	Symbol	Abbreviation
net calorific value	$q_{p,net}$	NCV
gross calorific value	$q_{V,gr}$	GCV
as received		ar
dry basis		d
particle diameter		*d*

5 Principles

The classification system is based on three important parameters, referred to the main SRFs properties: an economical parameter (net calorific value), a technical parameter (chlorine content) and an environmental parameter (mercury content). The parameters are chosen to give a stakeholder an immediate but simplified picture of the fuel in question.

Only fuels derived from non hazardous waste that meet the SRFs standards can be classified as SRFs.

The classification itself is not enough for an intending user. A user has to have a more detailed description of the fuel. Relevant fuel properties are thus to be further specified. Some of the fuel properties are so important that they are obligatory to specify whereas others can be recorded voluntarily, e.g. upon request of the user.

It is important that SRFs meet specified quality requirements which are to be determined on a defined lot size by a minimum number of measurements.

6 Requirements and declaration of conformity

In conformity with this Technical Specification, SRFs shall comply with the following requirements:

1. SRF shall be classified according to the system in Clause 7.
2. SRF shall meet quality requirements according to given compliance rules in Clause 8.
3. SRF properties shall be specified according to Clause 9.

The producer/supplier shall give a declaration of conformity to this Technical Specification. The record shall be kept available for inspection. A model template for the declaration is given in Annex C.

NOTE General criteria for a supplier's declaration is given in EN ISO/IEC 17050-1:2004 and EN ISO/IEC 17050-2:2004.

7 Classification

The classification system (Table 1) for SRFs is based on limit values for three important fuel properties. These are:

1. the mean value for net calorific value (ar);
2. the mean value for chlorine content (d);
3. the median and 80th percentile values for mercury content (ar).

Each property is divided into 5 classes with limit values. The SRF shall be assigned a class number from 1 to 5 for each property. A combination of the class numbers makes up the class code (see example below). The parameters are of equal importance and thus no single class number determines the code.

The class code shall be included in the specification as described in Clause 9.

Due to the statistical distribution pattern of the properties the values shall be presented as:

- net calorific value (NCV) mean (arithmetic);
- chlorine content (Cl) mean (arithmetic);
- mercury content (Hg) median and 80th percentile.

The highest of the two statistical values (median and 80th percentile) in a Hg data set determines the class (a SRF with a median value of 0,03 and a 80th percentile value of 0,07 belongs to Hg class 3).

For NCV, Cl and Hg the test methods in the corresponding prCEN/TS shall be used.

NOTE 1 80th percentile is the value on or below which 80 % of the observations fall.

NOTE 2 For details on statistics see CEN Report xxxx ”Key properties of solid recovered fuels to be used for establishing a classification system”.

NOTE 3 The averages and percentiles are determined on the quantity of SRF as specified in Clause 8.

NOTE 4 The classes have been determined as a tool for identifying and pre-selecting SRF. However, the performances of the plant where a SRF is used are depending on the properties of the SRF and more significantly on the design and operating conditions of such a plant.

Table 1 — Classification system for solid recovered fuels

Classification property	Statistical measure	Unit	Classes				
			1	2	3	4	5
Net calorific value (NCV)	Mean	MJ/kg (ar)	≥ 25	≥ 20	≥ 15	≥ 10	≥ 3

Classification property	Statistical measure	Unit	Classes				
			1	2	3	4	5
Chlorine (Cl)	Mean	% (d)	≤ 0,2	≤ 0,6	≤ 1,0	≤ 1,5	≤ 3

Classification property	Statistical measure	Unit	Classes				
			1	2	3	4	5
Mercury (Hg)	Median	mg/MJ (ar)	≤ 0,02	≤ 0,03	≤ 0,08	≤ 0,15	≤ 0,50
	80^{th} percentile	mg/MJ (ar)	≤ 0,04	≤ 0,06	≤ 0,16	≤ 0,30	≤ 1,00

Example of classification:

The class code of a SRF having a mean net calorific value of 19 MJ/kg (ar), a mean chlorine content of 0,5 % (d) and a median mercury content of 0,016 mg/MJ (ar) with a 80^{th} percentile value of 0,05 mg/MJ (ar) is designated as:

Class code NCV 3; Cl 2; Hg 2.

8 Compliance rules

8.1 Compliance rules for classification

For a considered 12 months period, for each property specified in the classification system, the compliance of a particular SRF shall be established by demonstration that the measured properties conform to the limit values defined for that class. This shall be performed at a period in which a quality management system (QMS) is applied. The lot size for classification shall be one tenth of a 12 months rolling period of production of the fuel to be classified.

NOTE 1 If the classification cannot be based on a 12 month period of actual production, an estimation of the planned production of the missing month should be included in the rolling 12 month period.

NOTE 2 If there are significant changes in the properties of input materials or in the production process conditions, the production lot shall be considered to be interrupted. Significant means such a change that would result in a change of class code.

NOTE 3 A quality management system is meant as any systematic procedure used for complying with this Technical Specification.

For each lot, at least one measurement of each property shall be performed. However, for Hg three measurements per lot are required on the basis of the same general sample. An additional laboratory sample shall be taken for cross check when needed. It shall be kept until the measurement has been

validated. The sampling and sample procedure are illustrated in Figure 2. For sampling and sample reduction prCEN/TS xxxx[14)] and prCEN/TS xxxx[15)] shall be applied.

The comparison for NCV and Cl with the limit values of the classes is made by the average of the values of at least the last 10 validated measurements or at least 10 validated measurements per annum taken at random.

The class code for Hg is established using median and 80th percentile based on at least the last 10 validated measurements or at least 10 validated measurements per annum taken at random.

After the start of the production of SRF or after a significant change, the needed measurement results can be obtained on one or several lots as defined above. When several general samples are taken on the same lot they shall be taken independently.

Within the characterisation period it is recommended to use as a prediction method for virgin producers the 50 % - rule for Hg classification in case of more than 10 data assays available and to use a random generator in case of more than 40 data assays available. Both prediction methods are working according to the principle of a conservative classification (indirect safety margin).

NOTE 4 If production time is less than 12 months it can be considered and treated as an initial phase of the production.

NOTE 5 The 50 % rule means that classification is determined by comparing the measurement results to 50 % of the class limits (median and/or 80-percentile). For more details see CEN Report xxxx “Key properties of solid recovered fuels to be used for establishing a classification system“.

8.2 Compliance rules for specification

The SRF specification to be agreed upon by the supplier and the user shall define the lot size as well as the compliance rules. In case these elements are not defined in the SRF specification, then the lot size and compliance rules specified for the classification apply.

14) To be published. Registered under WI 00343028.

15 To be published. Registered under WI 00343029.

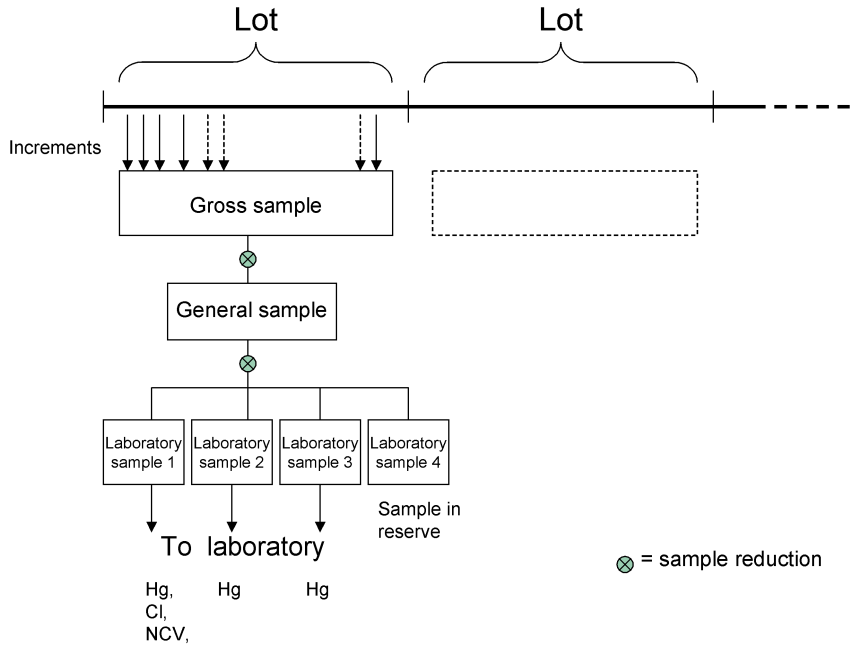

Figure 2 — Illustration of sampling and sample procedure. Number and size of increments depend on the heterogenity of the SRF and on required accuracy and precision (see prCEN/TS xxxxx[16)])

9 Specification

9.1 General

The SRFs shall be specified according to the template in Annex A. The template is divided in two parts: Part 1 consists of properties that are obligatory to specify and Part 2 of properties that are voluntary to specify. The list of properties in Part 2 may be altered (new properties added and existing removed).

For specification of the properties in Part 1 determination shall be made according to CEN test methods (Technical Specifications or standards). For the properties in Part 2 CEN test methods is recommended but other relevant methods may be used. If other methods are used it shall be stated in the (fuel) specification.

9.2 Properties obligatory to specify

The following properties shall be specified according to the specification template in Annex A, part 1.

Class code shall be filled in the specification data sheet as described in Clause 7. Actual values on the fuel properties included in the classification system shall be filled in as well. These are net calorific value, chlorine and mercury content

16) To be published. Registered under WI 00343028.

Origin — of the input waste used for preparation of the SRF shall be specified. It can be done either by text or by the four or six digit codes according to the European Waste List (EWC)

Particle form — of the SRF shall be specified. Examples of forms are pellets, bales, briquettes, chips, flakes, fluff and powder. Other forms may be used and shall then be specified separately

Particle size — in the fuel shall be specified by sieving or equivalent techniques, and be expressed as dx, where d is the particle size on the distribution curve where x % passes according to prCEN/TS xxxxx[17)], Solid recovered fuels - Determination of particle dimensions and particle size distribution

Ash content — shall be specified on dry bases according to prCEN/TS xxxxx[18)], Solid recovered fuels - Methods for the determination of ash content

Moisture content — shall be specified as received according to prCEN/TS xxxxx[19], Solid recovered fuels - Methods of for the determination of moisture content

Net calorific value — shall be specified both as received and on dry bases according to prCEN/TS xxxxx[20)], Solid recovered fuels - Methods for the determination of calorific values

Chemical properties — - the chlorine content shall be specified based on dry bases according to prCEN/TS xxxxx[21)], Solid recovered fuels - Methods for the determination of sulphur (S), chlorine (Cl), fluorine (F) and bromine (Br) content

- the content of each heavy metals mentioned in the Waste Incineration Directive shall be specified on dry bases separately, as well as the sum thereof, according to prCEN/TS xxxxx, Solid recovered fuels - Method for the determination of the content of trace elements (As, Ba, Be, Cd, Co, Cr, Cu, Hg, Mo, Mn, Ni, Pb, Sb, Se, V and Zn). The heavy metals are antimony, arsenic, cadmium, chromium, cobalt, copper, lead, manganese, mercury, nickel, thallium and vanadium

9.3 Properties voluntary to specify

The properties in Annex A, part 2 are voluntary to specify. These properties are:

Biomass content — of the SRF should be specified and shall then be measured according to prCEN/TS xxxxx[22)], Solid recovered fuels - Methods for the determination of the biomass content

NOTE More information on biomass content is available in CEN/TR 14980 [7].

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17) To be published. Registered under WI 00343033.

18) To be published. Registered under WI 00343012.

19) To be published. Registered under WI 00343030, WI 00343031 and WI 00343032.

20) To be published. Registered under WI 00343008.

21) To be published. Registered under WI 00343022.

22) To be published. Registered under WI 00343005.

Composition	is the weight percentage of main fractions of wood, paper, plastics, rubber, textiles etc. The basis (dry or wet) should be specified
Fuel preparation	depends on the input waste and the field of application. Since the preparation effects, the properties of the fuel it should be described. The description also gives valuable information to the end-user how to store, transport and handle the fuel. Common fuel preparation techniques are given in Annex B. Annex B can also be used as a template
Physical properties	example of other parameters: that may be used for specification of the SRF are bulk density, volatile content, and the ash melting behaviour
Chemical properties	such as major and minor elements in the fuel may be specified

There are several other properties that may be used for defining a SRF. Such properties, like dusting, odour ignition temperature, may be added to the list of informative parameters in the template.

Annex A
(normative)

Template for the specification of solid recovered fuels

Part 1

Obligatory to specify

SRF class and origin				
Class code [a]**:**				
Origin [b]**:**				
Physical parameters				
Particle form [c]**:**				
Particle size [d]**:**			**Test method**	
	Unit	**Value** [e]		**Test method**
		Typical	**Limit**	
Ash content	% d			prCEN/TS XXX
Moisture content	% ar			
Net calorific value	MJ/kg ar			
Net calorific value	MJ/kg d			
Chemical parameters				
	Unit	**Value**		**Test method**
		Typical	**Limit**	
Chlorine (Cl)	% d			prCEN/TS XXX
Antimony (Sb)	mg/kg d			
Arsenic (As)	mg/kg d			
Cadmium (Cd)	mg/kg d			
Chromium (Cr)	mg/kg d			
Cobalt (Co)	mg/kg d			
Copper (Cu)	mg/kg d			
Lead (Pb)	mg/kg d			
Manganese (Mn)	mg/kg d			
Mercury (Hg)	mg/kg d			
Nickel (Ni)	mg/kg d			
Thallium (Tl)	mg/kg d			
Vanadium (V)	mg/kg d			
∑ Heavy metals [f]	mg/kg d			

[a] According to the class system as specified in Clause 7.

[b] Preferable to European Waste List (EWC), 4 or 6 digit code. For mixtures and blends a combination of codes can be used.

[c] Examples of forms are pellets, bales, briquettes, flakes, chips, powder, fluff.

[d] By sieving or equiv. technique, expressed as d_x, where *d* is the particle size on the distribution curve where *x* percent passes.

[e] The typical value is the mean value (or the median value if appropriate with respect to the distribution of data) for a parameter of the SRF over an agreed or specified period of time. The limit value (maximum, minimum or 80th percentile if appropriate with respect to the distribution of the data) will be agreed upon and defined by the user and producer, and refers to a consignment.

[f] The heavy metals in the sum are those listed above (Sb-V) and equals those in the Waste Incineration Directive (WID).

Part 2

Voluntarily to specify

SRF origin and preparation								
Fuel preparation [a]:								
Biomass content								
Biomass fraction [b]		**%**	GCV	MJ/kg d	NCV	MJ/kg d		
Composition								
Composition *Dry basis* ☐ *As received* ☐		**Wood**	**Paper**	**Plastic**	**Rubber**	**Textile**	**Other**	
		%	%	%	%	%	%	
		Specification of Other:						
Physical parameters								
		Unit	**Value [c]**		**Test method**			
			Typical	**Limit**				
Bulk density		kg/m^3						
Content of vol. matter		% d						
Ash melting behaviour		°C						
Chemical parameters								
		Unit	**Value**		**Test method**			
			Typical	**Limit**				
Aluminium, metallic		% d						
Carbon (C)		% d						
Hydrogen (H)		% d						
Nitrogen (N)		% d						
Sulphur (S)		% d						
Bromine (Br)		mg/kg d						
Fluorine (F)		mg/kg d						
PCB		mg/kg d						
Major elements	**Aluminium (Al)**	mg/kg d						
	Iron (Fe)	mg/kg d						
	Potassium (K)	mg/kg d						
	Sodium (Na)	mg/kg d						
	Silicon (Si)	mg/kg d						
	Phosphorus (P)	mg/kg d						
	Titanium (Ti)	mg/kg d						
	Magnesium (Mg)	mg/kg d						
	Calcium (Ca)	mg/kg d						
Trace elements	**Molybdenum (Mo)**	mg/kg d						
	Zinc (Zn)	mg/kg d						
	Barium (Ba)	mg/kg d						
	Beryllium (Be)	mg/kg d						
	Selenium (Se)	mg/kg d						

[a] According to this Technical Specification, Annex B

[b] According to prCEN/TS xxxx (WI 00343005)

[c] The typical value is the mean value (or the median value if appropriate with respect to the distribution of the data) for a parameter of the SRF over an agreed or specified period of time. The limit value (maximum, minimum or 80th percentile if appropriate with respect to the distribution of the data) will be agreed upon and defined by the user and producer, and refers to a consignment.

Part 2 (continued)

	Others				
		Unit	Value		Test method
			Typical	Limit	

Annex B
(informative)

Fuel preparation

Fuel preparation affects the properties of the fuel. This template describes the most common fuel preparation techniques on different levels. It may be used, perhaps in combination with a flow sheet, to describe the preparation of the fuel and thus provide valuable information to the user. By filling in the empty lines the template can be adapted to also cover preparation methods that are not included from start.

Preparation Level		
1	**2**	**3**
Untreated		
Sorting	Manual sorting	
	Mechanical sorting	Picking crane
		Bucket screen
Biological treatment	Aerobic treatment	
	Anaerobic treatment	
Crushing, grinding, shredding	Shredder	Single rotor shredder
		Two shaft shredder
		Four shaft shredder
	Crusher	Screw crusher
		Jaw crusher
	Mill	Ball mill
		Gravity fed hammer mill
		Horizontal fed hammer mill
Separation	Magnetic material separation	Magnetic drum separator
		Magnetic drive pulley
		Suspended cross belt separator
		In line magnetic separator
	Non-magnetic material separation	Eddy current separator
		Cascade
	Gravity separation	Wind separation, air classifier, wind shifter
		Ballistic separation
		Wet separation
	Optical separation	
Screening	Rotating (drum) screen	
	Oscillating screen	
	Reciprocating screen	
	Screen disk	
	Star screener	
Washing		
Drying, cooling	Drying	
	Cooling	
Homogenisation, compacting	Mixing	
	Blending	
	Compressing	Pelletizing
		Bricketizing
		Baling
Dust prevention		

Annex C
(informative)

Template for declaration of conformity[23)]

Declaration No .....[24)]

Supplier .....

Address .....

Solid recovered fuel identification .....[25)]

The Solid recovered fuel described above is in conformity with

Solid recovered fuels – Specifications and classes
(this Technical Specification)

The SRF described above is also in conformity with[26)]

.....	Yes	No
.....	Yes	No
.....	Yes	No

The following quality management system (QMS) has been applied

during the corresponding production period

Solid recovered fuels – Quality Management System – Particular requirements for their application to the production of solid recovered fuels (prCEN/TS 15358)	Yes	No
(other)	Yes	No

Additional information[27)]

.....
.....

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23) In accordance with EN ISO/IEC 17050-1:2004 and EN ISO/IEC 17050-2:2004.

24) Every declaration should be identified for easy reference.

25) The SRF should be unequivocally described so that the declaration may be related to the product in question.

26) The documents should be listed with their document identification, title and date of issue.

27) Additional information may be supplied so that it is possible to relate the declaration to the conformity results on which it is based, for example the name and address of the test laboratory or certification body involved, reference to a conformance test report, reference to the management system involved (i.e. self-assessed or certified/registered) or reference to the laboratory accreditation document.

Signed on behalf of (Name and address of supplier)

Signature:

Position/function:.....Date of issue:.....

Bibliography

[1] Council of the European Communities, 1975. Council Directive of 15 July 1975 on waste (75/442/EEC) and its amendment (96/350/EC)

[2] Council of the European Communities, 1991. Council Directive of 12 December 1991 on hazardous waste (91/689/EC) and its amendment (94/31/EC)

[3] European Parliament and the Council of the European Union, 2000. Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste.

[4] European Parliament and the Council of the European Union, 2001. 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.

[5] Council of the European Communities, 2001. Council Decision of 16 January 2001 2000/532/EC (European Waste List) and its amendments (2001/118/EC, 2001/119/EC, 2001/573/EC)

[6] CEN Report xxxx[28], *Key properties of solid recovered fuels to be used for establishing a classification system*

[7] CEN/TR 14980, *Solid recovered fuels — Report on relative difference between biodegradable and biogenic fractions of SRF*

[8] CEN/TS 14588:2003, *Solid biofuels — Terminology, definitions and descriptions*

[9] EN/ISO 9000:2000, *Quality management systems — Fundamentals and vocabulary (ISO 9000:2000)*

[10] EN ISO/IEC 17050-1:2004, *Conformity assessment — Supplier's declaration of conformity — Part 1: General requirements (ISO/IEC 17050-1:2004)*

[11] EN ISO/IEC 17050-2:2004, *Conformity assessment - Supplier's declaration of conformity — Part 2: Supporting documentation (ISO/IEC 17050-2:2004)*

28) To be published.