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Solid recovered fuels - ^{14}C -based methods for the determination of the biomass content

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English Version

Solid recovered fuels - ^{14}C -based methods for the determination of the biomass content

Combustibles solides de récupération - Méthodes basées sur le ^{14}C pour la détermination de la teneur en biomasse

Feste Sekundärbrennstoffe - ^{14}C -Verfahren zur Bestimmung des Gehaltes an Biomasse

This Technical Specification (CEN/TS) was approved by CEN on 11 May 2008 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.

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Contents

Page

Foreword.....3

Introduction4

1 Scope5

2 Normative references5

3 Terms and definitions5

4 Symbols and abbreviations5

5 Equipment and reagents6

6 Principle7

7 Procedure7

8 Measurements8

9 Calculation9

10 Test report11

Annex A (normative) ¹⁴C Determination by Proportional Scintillation-counter Method (PSM).....12

Annex B (normative) ¹⁴C Determination by Beta-ionisation (BI)16

Annex C (normative) ¹⁴C Determination by Accelerator Mass Spectrometry (AMS)20

Annex D (informative) Exclusions, mentioned in CEN/TS 15440, which can be resolved using the ¹⁴C method25

Bibliography26

Foreword

This document (CEN/TS 15747:2008) has been prepared by Technical Committee CEN/TC 343 “Solid Recovered Fuels”, the secretariat of which is held by SFS.

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Introduction

The determination of the biomass carbon content using the ^{14}C method is based on the well established analytical procedures that are used for the determination of the age of carbon containing objects. It can be used for normal sample types, sample types that cannot be analysed accurately with the methods described in CEN/TS 15440 (1) (see Annex D), samples with a biomass carbon content below 5%, and for reference measurements.

For the determination of the biomass carbon content based on the ^{14}C method a general sample preparation and the three common used methods for the determination of the ^{14}C content are described. With this modular approach it will be possible for normally equipped laboratories to prepare samples for the ^{14}C content, and to determine the ^{14}C content with their own equipment or to outsource the determination of the ^{14}C content to laboratories that specialize in this matter.

For the collection from the sample of the ^{14}C content, generally accepted methods for the conversion of the carbon present in the sample to CO_2 are described. For the measurement of the ^{14}C content, methods are selected that are already generally accepted as methods for the determination of the age of objects.

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