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SOLID RECOVERED FUELS - METHODS FOR THE DETERMINATION OF CALORIFIC VALUE

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TECHNICAL SPECIFICATION

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English Version

Solid recovered fuels - Methods for the determination of calorific value

Combustibles solides de récupération - Méthodes pour la détermination du pouvoir calorifique

Feste Sekundärbrennstoffe - Verfahren zur Bestimmung des Brennwertes

This Technical Specification (CEN/TS) was approved by CEN on 25 March 2006 for provisional application.

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Foreword

This document (CEN/TS 15400:2006) 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 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 the United Kingdom.

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Introduction

WARNING — Strict adherence to all of the provisions specified in this Technical Specification should ensure against explosive rupture of the bomb, or a blow-out, provided that the bomb is of proper design and construction and in good mechanical condition.

This Technical Specification is based on ISO 1928:1995 and CEN/TS 14918 and modified to solid recovered fuels with some additions and alterations specific to solid recovered fuels properties.

The result obtained is the gross calorific value of the sample analysed at constant volume with all the water of the combustion products as liquid water. In practice, solid recovered fuels are burned at a constant (atmospheric) pressure and the water is either not condensed (removed as vapour with the flue gases) or condensed. Under both conditions, the operative heat of combustion to be used is the net calorific value of the fuel at constant pressure. The net calorific value at constant volume can also be used; equations are given for calculating both values.

General principles and procedures for the calibrations and the solid recovered fuels experiments are presented in the normative text, whereas those pertaining to the use of a particular type of calorimetric instrument are specified in Annexes A to C. Annex D contains checklists for performing calibration and fuel experiments using specified types of calorimeters. Annex E gives examples to illustrate some of the calculations.

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