National Standards Authority of Ireland

IRISH STANDARD

I.S. CEN/TS 15105:2005

ICS 75.160.10

National Standards
Authority of Ireland
Glasnevin, Dublin 9
Ireland

Tel: +353 1 807 3800
Fax: +353 1 807 3838
http://www.nsai.ie

Sales
http://www.standards.ie

SOLID BIOFUELS - METHODS FOR DETERMINATION OF THE WATER SOLUBLE CONTENT OF CHLORIDE, SODIUM AND POTASSIUM

This Irish Standard was published under the authority of the National Standards Authority of Ireland and comes into effect on:
October 21, 2005

Price Code E

Údarás um Chaighdeáin Náisiúnta na hÉireann

TECHNICAL SPECIFICATION

SPÉCIFICATION TECHNIQUE

TECHNISCHE SPEZIFIKATION

CEN/TS 15105

August 2005

ICS 75.160.10

English Version

Solid biofuels - Methods for determination of the water soluble content of chloride, sodium and potassium

Biocombustibles solides - Détermination de la teneur en chlorure, sodium et potassium solubles dans l'eau

Feste Biobrennstoffe - Verfahren zur Bestimmung des wasserlöslichen Gehaltes an Chlorid, Natrium und Kalium

This Technical Specification (CEN/TS) was approved by CEN on 19 March 2005 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.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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

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

Ref. No. CEN/TS 15105:2005: E

Contents

Page

Foreword

This Technical Specification (CEN/TS 15105:2005) has been prepared by Technical Committee CEN/TC 335 “Solid Biofuels”, the secretariat of which is held by SIS.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

The elements chlorine, sodium and potassium are to a larger or a smaller extent present in solid biofuels. They can contribute significantly to utilisation problems such as corrosion, fouling and slagging in furnaces. Also they affect the gaseous emissions from the thermal processes.

The chlorine content in solid biofuels is mainly present as water soluble inorganic salts as e.g. sodium and potassium chlorides or other ion-exchangeable forms. Determination of the water soluble chloride content is thus an alternative and simple method to achieve information of the level of chlorine in solid biofuels. The content of water soluble chloride shall however not be mistaken for the total content of chlorine in the fuels.

In solid biofuels sodium and potassium can be present as both minerals and salts. The latter forms of the elements are extractable with water and are readily volatile. By determination of the water soluble content of sodium and potassium an estimate of the aggressive content of the elements in relation to potential slagging and fouling problems can be achieved. For some biofuels, as e.g. straw, it is an experience that the water soluble content of sodium and potassium correspond to the total content of the elements. The content of water soluble sodium and potassium shall not be mistaken for the total content of the elements.