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Fasta biobränslen – Bestämning av vattenlöslig halt av klorider, natrium och kalium (ISO 16995:2015)

Solid biofuels – Determination of the water soluble chloride, sodium and potassium content (ISO 16995:2015)

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Denna standard ersätter SS-EN 15105:2011, utgåva 1.

The European Standard EN ISO 16995:2015 has the status of a Swedish Standard. This document contains the official version of EN ISO 16995:2015.

This standard supersedes the Swedish Standard SS-EN 15105:2011, edition 1.

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EUROPEAN STANDARD

EN ISO 16995

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2015

ICS 27.190; 75.160.10

Supersedes EN 15105:2011

English Version

Solid biofuels - Determination of the water soluble chloride, sodium and potassium content (ISO 16995:2015)

Biocombustibles solides - Détermination de la teneur en chlorure, sodium et potassium solubles dans l'eau (ISO 16995:2015)

Biogene Festbrennstoffe - Bestimmung des wasserlöslichen Gehaltes an Chlorid, Natrium und Kalium (ISO 16995:2015)

This European Standard was approved by CEN on 29 November 2014.

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Foreword

This document (EN ISO 16995:2015) has been prepared by Technical Committee ISO/TC 238 "Solid biofuels" in collaboration with Technical Committee CEN/TC 335 "Solid biofuels" the secretariat of which is held by SIS.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2015, and conflicting national standards shall be withdrawn at the latest by August 2015.

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Introduction

The elements chlorine, sodium and potassium are present in solid biofuels. They can contribute significantly to utilization 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 such as 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. However, the content of water soluble chloride is not to 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 salts of these elements are extractable with water and are readily volatile during thermal conversion. 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, such as straw, experience has shown that the water soluble content of sodium and potassium corresponds to the total content of the elements. The content of water soluble sodium and potassium is not to be mistaken for the total content of the elements.