

**Solid biofuels - Determination of moisture content -
Oven dry method - Part 1: Total moisture - Reference
method**

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 14774-1:2009 sisaldab Euroopa standardi EN 14774-1:2009 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 31.12.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 28.10.2009.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 14774-1:2009 consists of the English text of the European standard EN 14774-1:2009.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 31.12.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 28.10.2009.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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ICS 75.160.10

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English Version

Solid biofuels - Determination of moisture content - Oven dry method - Part 1: Total moisture - Reference method

Biocombustibles solides - Détermination de la teneur en humidité - Méthode par séchage à l'étuve - Partie 1: Humidité totale - Méthode de référence

Feste Biobrennstoffe - Bestimmung des Wassergehaltes - Ofentrocknung - Teil 1: Gesamtgehalt an Wasser - Referenzverfahren

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 14774-1:2009) has been prepared by 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of an identical text or by endorsement, at the latest by April 2010, and conflicting national standards shall be withdrawn at the latest by April 2010.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes CEN/TS 14774-1:2004.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

EN 14774 consists of the following parts:

- EN 14774-1, *Solid biofuels – Determination of moisture content – Oven dry method – Part 1: Total moisture – Reference method*;
- EN 14774-2, *Solid biofuels – Determination of moisture content – Oven dry method – Part 2: Total moisture – Simplified method*;
- EN 14774-3, *Solid biofuels – Determination of moisture content – Oven dry method – Part 3: Moisture in general analysis sample*.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, 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 United Kingdom.

1 Scope

This European Standard describes the method of determining the total moisture content of a sample of solid biofuels by drying in an oven and should be used when high precision of the determination of moisture content is necessary. The method described in this document is applicable to all solid biofuels.

The total moisture content of biofuels is not an absolute value and conditions for its determination have to be standardised to enable comparative determinations to be made.

NOTE The term moisture content when used with biomass materials can be misleading since untreated biomass frequently contains varying amounts of volatile compounds (extractives) which may evaporate when determining moisture content by oven drying (see Bibliography).

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CEN/TS 14588:2003, *Solid biofuels – Terminology, definitions and descriptions*

CEN/TS 14778-1, *Solid biofuels – Sampling – Part 1: Methods for sampling*

CEN/TS 14778-2, *Solid biofuels – Sampling – Part 2: Methods for sampling particulate material transported in lorries*

CEN/TS 14780, *Solid biofuels – Methods for sample preparation*

3 Terms and definitions

For the purpose of this document, the terms and definitions given in CEN/TS 14588:2003 shall apply.

NOTE In this method the moisture content should be reported on wet basis. The moisture content can also be expressed on dry basis; ratio of the mass of water in the material to the mass of dry matter in the material (see subclause 8.3).

4 Principle

The sample of biofuel is dried at a temperature of 105 °C in air atmosphere until constant mass is achieved and percentage moisture calculated from the loss in mass of the sample and includes a procedure for the correction of buoyancy effects.

5 Apparatus

5.1 Drying oven, capable of being controlled (manufacturers specifications) at a temperature within the range of (105 ± 2) °C and in which the air atmosphere changes between three and five times per h.

The air velocity should be such that the sample particles are not dislodged from their tray.

5.2 Trays, of non-corrodible and heat-resistant material and of such dimension that they will hold the test portion in the proportion of approximately 1 g of sample per cm².