

ICS 75.160.10

English Version

**Solid recovered fuels - Determination of moisture content using
the oven dry method - Part 3: Moisture in general analysis
sample**

Combustibles solides de récupération - Détermination de
l'humidité par la méthode de séchage à l'étuve - Partie 3:
Humidité de l'échantillon pour analyse générale

Feste Sekundärbrennstoffe - Bestimmung des
Wassergehaltes unter Verwendung des Verfahrens der
Ofentrocknung - Teil 3: Wassergehalt in gewöhnlichen
Analysenproben

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 15414-3:2006) has been prepared by Technical Committee CEN/TC 343 “Solid recovered fuels”, the secretariat of which is held by SFS.

CEN/TS 15414 “*Solid recovered fuels — Determination of moisture content using the oven dry method*” consists of three parts:

Part 1: Determination of total moisture by a reference method

Part 2: Determination of total moisture by a simplified 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 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.

1 Scope

This Technical Specification specifies a method for the determination of moisture in an analysis sample by drying the sample in an oven. This method is suitable for use for general analysis samples in accordance with CEN/TS 15414-1. It is applicable to all solid recovered fuels.

NOTE 1 The term moisture content when used with recovered materials can be misleading since solid recovered materials e.g. biomass frequently contain varying amounts of volatile compounds (extractives) which can evaporate when determining the moisture content of the general analyses sample by oven drying.

NOTE 2 This Technical Specification is based on CEN/TS 14774-3 [1].

2 Normative references

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

CEN/TS 15357:2006, *Solid recovered fuels — Terminology, definitions and descriptions*

prCEN/TS 15443, *Solid recovered fuels — Methods for laboratory sample preparation*

3 Terms and definitions

For the purposes of this Technical Specification, the terms and definitions given in CEN/TS 15357:2006 apply.

4 Principle

The analysis sample of recovered fuel is dried at a temperature of 105 °C under air atmosphere, nitrogen atmosphere or vacuum conditions. The percentage of moisture is calculated from the loss in mass of the test sample. If the sample material is susceptible to oxidation (at 105 °C), drying in nitrogen atmosphere or vacuum conditions is performed (see prCEN/TS 15442 [2] and ISO 331 [3]).

5 Apparatus

5.1 Drying oven, capable of being controlled at (105 ± 2) °C (see declaration of the manufacturer) and in which the air atmosphere changes between three and five times per hour. The air velocity shall be such that the sample particles are not dislodged from their weighing dish (5.2).

NOTE For the use of nitrogen atmosphere, see ISO 331 [3]; for the use of vacuum drying oven, see [4].

5.2 Weighing dish, of glass or corrosion- and temperature resistant material, with a well-fitting lid and of such a size that the sample layer does not exceed 0,2 g/cm².

5.3 Balance, with a sufficient accuracy to weigh the sample to the nearest 0,1 mg.

5.4 Dessicator, to avoid absorption of moisture from the atmosphere to the sample.