

English Version

**Solid recovered fuels - Determination of moisture content using
the oven dry method - Part 1: Determination of total moisture by
a reference method**

Combustibles solides de récupération - Détermination de
l'humidité par la méthode de séchage à l'étuve - Partie 1 :
Détermination de l'humidité totale par une méthode de
référence

Feste Sekundärbrennstoffe - Bestimmung des
Wassergehaltes unter Verwendung des Verfahrens der
Ofentrocknung - Teil 1: Bestimmung des Gesamtgehaltes
an Wasser mittels Referenzverfahren

This Technical Specification (CEN/TS) was approved by CEN on 27 March 2010 for provisional application.

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Contents

	Page
Foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Principle.....	4
5 Apparatus	4
6 Sampling and sample preparation	5
7 Procedure	5
8 Calculation.....	6
9 Precision.....	7
10 Test report	7
Bibliography	8

Foreword

This document (CEN/TS 15414-1:2010) has been prepared by Technical Committee CEN/TC 343 "Solid recovered fuels", the secretariat of which is held by SFS.

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1 Scope

This Technical Specification specifies a method for the determination of total moisture content of solid recovered fuels by drying a sample in an oven. This method is suitable for use if a high precision of the determination of moisture content is required. It is applicable to all solid recovered fuels.

NOTE 1 The total moisture content of solid recovered fuels is not an absolute value and therefore standardised conditions for its determination are indispensable to enable comparative determinations.

NOTE 2 The term moisture content when used with recovered materials can be misleading since solid recovered materials, e.g. biomass, frequently contains varying amounts of volatile compounds (extractives) which can evaporate when determining moisture content by oven drying.

NOTE 3 This Technical Specification is based on prEN 14774-1 [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.

prEN 15357, *Solid recovered fuels — Terminology, definitions and descriptions*

prEN 15442, *Solid recovered fuels — Methods for sampling*

prEN 15443, *Solid recovered fuels — Methods for the preparation of the laboratory sample*

3 Terms and definitions

For the purposes of this Technical Specification, the terms and definitions given in prEN 15357 apply.

4 Principle

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

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 dish or tray (5.2).

5.2 Dishes or trays of non-corrodible and heat-resistant material and of such dimensions that they are able to hold the total sample in the proportion of about 1 g of sample per 100 mm² of surface area of the dish or tray respectively of about 0,5 g per 100 mm² for samples with very low bulk density of less than 100 kg/m³. The surface of the dish or tray shall be such that the possibility to adsorption/absorption is minimised (very clean and even surface).

5.3 Balance, capable of weighing the sample and dish or tray (5.2), as received, to the nearest 0,1 g.