

**Cereals, cereals-based products and animal feeding  
stuffs - Determination of crude fat and total fat content  
by the Randall extraction method**

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 11085:2010 sisaldab Euroopa standardi EN ISO 11085:2010 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 30.09.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 14.04.2010.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 11085:2010 consists of the English text of the European standard EN ISO 11085:2010.

This standard is ratified with the order of Estonian Centre for Standardisation dated 30.09.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 14.04.2010.

The standard is available from Estonian standardisation organisation.

ICS 67.060

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English Version

**Cereals, cereals-based products and animal feeding stuffs -  
Determination of crude fat and total fat content by the Randall  
extraction method (ISO 11085:2008)**

Céréales, produits céréaliers et aliments des animaux -  
Détermination de la teneur en matières grasses brutes et  
en matières grasses totales par la méthode d'extraction de  
Randall (ISO 11085:2008)

Getreide, Getreideerzeugnisse und Futtermittel -  
Bestimmung des Rohfettgehalts und des  
Gesamtfettgehalts mit dem Extraktionsverfahren nach  
Randall (ISO 11085:2008)

This European Standard was approved by CEN on 13 March 2010.

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## Foreword

The text of ISO 11085:2008 has been prepared by Technical Committee ISO/TC 34 "Food products" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 11085:2010 by Technical Committee CEN/TC 338 "Cereal and cereal products" the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by October 2010, and conflicting national standards shall be withdrawn at the latest by October 2010.

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### Endorsement notice

The text of ISO 11085:2008 has been approved by CEN as a EN ISO 11085:2010 without any modification.

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# Cereals, cereals-based products and animal feeding stuffs — Determination of crude fat and total fat content by the Randall extraction method

## 1 Scope

This International Standard specifies procedures for the determination of the fat content of cereals, cereal-based products, and animal feeding stuffs. These procedures are not applicable to oilseeds and oleaginous fruits.

The choice of procedure to be used depends on the nature and composition of the material analysed and the reason for carrying out the analysis.

Procedure A is a method for the determination of directly extractable crude fats, applicable to all materials, except those included within the scope of procedure B.

Procedure B is a method for the determination of total fats, applicable to all materials from which the oils and fats cannot be completely extracted without prior hydrolysis.

**NOTE** Most cereals, as well as feeds of animal origin, yeasts, potato protein, compound feeds with milk products, glens and products subjected to processes such as extrusion, flaking and heating, yield significantly higher total fat contents when tested by procedure B than by procedure A. See Annex B.

## 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.

ISO 3696, *Water for analytical laboratory use — Specification and test methods*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **crude fat content**

mass fraction of substances extracted from the sample by procedure A specified in this International Standard

**NOTE** The crude fat content is expressed as a percentage mass fraction.

### 3.2

#### **total fat content**

mass fraction of substances extracted from the sample by procedure B specified in this International Standard

**NOTE** The total fat content is expressed as a percentage mass fraction.