

**Wheat and wheat flour - Gluten content - Part 1:  
Determination of wet gluten by a manual method**

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 21415-1:2007 sisaldab Euroopa standardi EN ISO 21415-1:2007 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 21.06.2007 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 21.03.2007.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 21415-1:2007 consists of the English text of the European standard EN ISO 21415-1:2007.

This standard is ratified with the order of Estonian Centre for Standardisation dated 21.06.2007 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 21.03.2007.

The standard is available from Estonian standardisation organisation.

ICS 67.060

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English Version

Wheat and wheat flour - Gluten content - Part 1: Determination  
of wet gluten by a manual method (ISO 21415-1:2006)

Blé et farines de blé - Teneur en gluten - Partie 1:  
Détermination du gluten humide par une méthode manuelle  
(ISO 21415-1:2006)

Weizen und Weizenmehl - Glutengehalt - Teil 1: Manuelle  
Methode zur Bestimmung des Feuchtglutens (ISO 21415-  
1:2006)

This European Standard was approved by CEN on 25 February 2007.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

## Foreword

The text of ISO 21415-1:2006 has been prepared by Technical Committee ISO/TC 34 "Agricultural food products" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 21415-1:2007 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 September 2007, and conflicting national standards shall be withdrawn at the latest by September 2007.

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.

### Endorsement notice

The text of ISO 21415-1:2006 has been approved by CEN as EN ISO 21415-1:2007 without any modifications.

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**Wheat and wheat flour — Gluten  
content —**

Part 1:  
**Determination of wet gluten by a manual  
method**

*Blé et farines de blé — Teneur en gluten —*

*Partie 1: Détermination du gluten humide par une méthode manuelle*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 21415-1 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 4, *Cereals and pulses*.

This first edition of ISO 21415-1, together with ISO 21415-2 (to be published), cancels and replaces ISO 5531:1978, which has been technically revised.

ISO 21415 consists of the following parts, under the general title *Wheat and wheat flour — Gluten content*:

- *Part 1: Determination of wet gluten by a manual method*
- *Part 2: Determination of wet gluten by mechanical means*
- *Part 3: Determination of dry gluten from wet gluten by an oven drying method*
- *Part 4: Determination of dry gluten from wet gluten by a rapid drying method*

## Introduction

The alternative techniques specified in this part of ISO 21415 and in ISO 21415-2 for the isolation of wet gluten (i.e. washing out by hand and mechanical washing out) do not usually give equivalent results. The reason is that, for complete development of the gluten structure, it is necessary to rest the dough. Therefore, the result obtained by hand washing is usually higher than that obtained by mechanical washing, mainly in the case of wheat which has high gluten content. Consequently, the test report should always indicate the technique used.



# Wheat and wheat flour — Gluten content —

## Part 1:

## Determination of wet gluten by a manual method

### 1 Scope

This part of ISO 21415 specifies a manual washing out method for the determination of the wet gluten content of wheat flour (*Triticum aestivum* L. and *Triticum durum* Desf.). This method is directly applicable to flour. It is also applicable to semolina and wheat after grinding, if their particle size distribution meets the specification given in Table B.1.

### 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 712, *Cereals and cereal products — Determination of moisture content — Routine reference method*