



# SLOVENSKI STANDARD SIST EN ISO 8292:1998

01-november-1998

Animal and vegetable fats and oils - Determination of solid fat content - Pulsed nuclear magnetic resonance method (ISO 8292:1991)

Tierische und pflanzliche Fette und Öle - Bestimmung des Festanteils von Fett - Verfahren mit gepulster magnetischer Kernresonanz (ISO 8292:1991)

Corps gras d'origines animale et végétale - Détermination de la teneur en corps gras solides - Méthode par résonance magnétique nucléaire pulsée (ISO 8292:1991)

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**Ta slovenski standard je istoveten z: EN ISO 8292:1995**

**ICS:**

67.200.10      Animal and vegetable fats and oils

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EUROPEAN STANDARD

EN ISO 8292

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 1995

ICS 67.200.10

Descriptors: agricultural products, food products, animal fats, vegetable fats, animal fats, vegetable oils, chemical analysis, determination of content, fats, nuclear magnetic resonance method

English version

**Animal and vegetable fats and oils - Determination  
of solid fat content - Pulsed nuclear magnetic  
resonance method (ISO 8292:1991)**

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Corps gras d'origines animale et végétale -  
Détermination de la teneur en corps gras  
solides - Méthode par résonance magnétique  
nucléaire pulsée (ISO 8292:1991)

Tierische und pflanzliche Fette und Öle -  
Bestimmung des Festanteils von Fett - Verfahren  
mit gepulster magnetischer Kernresonanz  
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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

# CEN

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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## Foreword

The text of the International Standard from ISO/TC 34 "Agricultural food products" of the International Organization for Standardization (ISO) has been taken over as a European Standard by the Technical Committee CEN/TC 307 "Oilseeds, vegetable and animal fats and oils and their by-products - Methods of sampling and analysis".

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 1995, and conflicting national standards shall be withdrawn at the latest by October 1995.

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

## Endorsement notice

The text of the International Standard ISO 8292:1991 has been approved by CEN as a European Standard without any modification.

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NOTE: Normative references to international publications are listed in annex ZA (normative).

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**Annex ZA (normative)****Normative references to international publications  
with their relevant European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN</u>	<u>Year</u>
ISO 661	1989	Animal and vegetable fats and oils - Preparation of test sample	EN ISO 661	1995

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# INTERNATIONAL STANDARD

**ISO**  
**8292**

first edition  
1991-12-01

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## **Animal and vegetable fats and oils — Determination of solid fat content — Pulsed nuclear magnetic resonance method**

### **iTeh STANDARD PREVIEW**

*Corps gras d'origines animale et végétale — Détermination de la teneur  
en corps gras solides — Méthode par résonance magnétique nucléaire  
pulsée*

[SIST EN ISO 8292:1998](#)

<https://standards.iteh.ai/catalog/standards/sist/b3e156fd-cd42-479e-9a32-47fce9717e86/sist-en-iso-8292-1998>



Reference number  
ISO 8292:1991(E)

## ISO 8292:1991(E)

**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.

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.

International Standard ISO 8292 was prepared by Technical Committee ISO/TC 34, *Agricultural food products*, Sub-Committee SC 11, *Animal and vegetable fats and oils*.

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# Animal and vegetable fats and oils — Determination of solid fat content — Pulsed nuclear magnetic resonance method

## 1 Scope

This International Standard specifies a method for the determination of the solid fat content in animal and vegetable fats and oils (hereinafter referred to as fats) using low-resolution pulsed nuclear magnetic resonance. Alternative thermal pretreatments are specified according to whether or not the fat exhibits pronounced polymorphism.

NOTE 1 Examples of fat which exhibit pronounced polymorphism are cocoa butter and fats containing appreciable quantities of 2-unsaturated, 1,3-saturated triacylglycerol.

## 2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 661:1989, *Animal and vegetable fats and oils — Preparation of test sample.*

## 3 Definition

For the purposes of this International Standard, the following definition applies.

**3.1 solid fat content:** The percentage by mass of fat in the solid state at a specified temperature when measured by pulsed nuclear magnetic resonance under the conditions specified in this International Standard.

## 4 Principle

Preparation of test portions at specified temperatures. Measurement of the magnetization decay signals from the solid and liquid fat protons using pulsed nuclear magnetic resonance, with automatic calculation and display of the solid fat content.

## 5 Material

**Calibration material,** of known instrument response.

NOTE 2 Calibration materials with known responses are supplied by the instrument manufacturer. Materials giving responses of 0 % (*m/m*) and of about 35 % (*m/m*) and 70 % (*m/m*) are suitable. These response values are constant for all measurement temperatures.

## 6 Apparatus

**6.1 Measuring tubes,** suitable for use with the nuclear magnetic resonance instrument.

**6.2 Metal blocks,** preferably aluminium, with holes. The diameter of the holes shall not be more than 0,4 mm greater than the average diameter of the measuring tubes. The depth of the holes shall be such that the level of the fat is approximately 10 mm below the upper surface of the block. The thickness of the metal under the holes and the distance between the edge of a peripheral hole and the nearest side face shall be 10 mm. The distance between the axes of two adjacent holes shall be 7 mm greater than the diameter of the holes. One block is required for each water-bath used.