



**SLOVENSKI STANDARD
SIST EN ISO 660:2000**

01-maj-2000

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Animal and vegetable fats and oils - Determination of acid value and acidity (ISO 660:1996)

Tierische und pflanzliche Fette und Öle - Bestimmung der Säurezahl und der Azidität (ISO 660:1996)

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Corps gras d'origines animale et végétale - Détermination de l'indice d'acide et de l'acidité (ISO 660:1996)

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Ta slovenski standard je istoveten z: EN ISO 660:1999

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EUROPEAN STANDARD

EN ISO 660

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 1999

ICS 67.200.10

English version

Animal and vegetable fats and oils - Determination of acid value and acidity (ISO 660:1996)

Corps gras d'origines animale et végétale - Détermination de l'indice d'acide et de l'acidité (ISO 660:1996)

Tierische und pflanzliche Fette und Öle - Bestimmung der Säurezahl und der Azidität (ISO 660:1996)

This European Standard was approved by CEN on 15 April 1999.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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

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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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EN ISO 660:1999

Foreword

The text of the International Standard from Technical Committee ISO/TC 34 "Agricultural food products" of the International Organization for Standardization (ISO) has been taken over as an European Standard by Technical Committee CEN/TC 307 "Oilseeds, vegetable and animal fats and oils and their by-products - Methods of sampling and analysis", 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 November 1999, and conflicting national standards shall be withdrawn at the latest by November 1999.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, 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 660:1996 has been approved by CEN as a European Standard without any modification.

NOTE: Normative references to International Standards 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.

<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
ISO 3696	1987	Water for analytical laboratory use – Specification and test methods	EN ISO 3696	1995

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INTERNATIONAL
STANDARD

ISO
660

Second edition
1996-05-15

**Animal and vegetable fats and oils —
Determination of acid value and acidity**

iTeh STANDARD PREVIEW

*Corps gras d'origines animale et végétale — Détermination de l'indice
d'acide et de l'acidité*
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Reference number
ISO 660:1996(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 660 was prepared by Technical Committee ISO/TC 34, *Agricultural food products*, Subcommittee SC 11, *Animal and vegetable fats and oils*.

This second edition cancels and replaces the first edition (ISO 660:1983), which has been technically revised.

Annexes A and B of this International Standard are for information only.

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International Organization for Standardization

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Animal and vegetable fats and oils — Determination of acid value and acidity

1 Scope

This International Standard specifies three methods (two titrimetric and one potentiometric) for the determination of acidity in animal and vegetable fats and oils, hereinafter referred to as fats. The acidity is expressed preferably as acid value, or alternatively as acidity calculated conventionally.

The method described in clause 4 is the reference method. The method described in clause 5 applies to oils and fats which are not strongly coloured.

The methods are not applicable to waxes.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were 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 editions of the standards 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*.

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods*.

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1 acid value: Number of milligrams of potassium hydroxide required to neutralize the free fatty acids present in 1 g of fat, when determined in accordance with the procedure specified in this International Standard.

Acid value is expressed in milligrams per gram.

3.2 acidity: Content of free fatty acids determined according to the procedure specified in this International Standard.

Acidity is expressed as a percentage by mass.

NOTES

1 If the result of the determination is reported as acidity, without further explanation, this is by convention the acidity expressed based on oleic acid.

2 If the sample contains mineral acids, these are, by convention, determined as fatty acids.

4 Hot ethanol method using indicator

4.1 General

This method is the reference method for fats (see clause 1).

NOTE 3 Under the conditions specified in this method, short-chain fatty acids, if present, are volatile.

4.2 Principle

A test portion is dissolved in hot ethanol and titrated with an aqueous solution of sodium or potassium hydroxide.