

INTERNATIONAL
STANDARD

ISO
7305

Second edition
1998-07-15

**Milled cereal products — Determination of
fat acidity**

Produits de mouture des céréales — Détermination de l'acidité grasse



Reference number
ISO 7305:1998(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 7305 was prepared by Technical Committee ISO/TC 34, *Agricultural food products*, Subcommittee SC 4, *Cereals and pulses*.

This second edition cancels and replaces the first edition (ISO 7305:1986), which has been technically revised.

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

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Introduction

This International Standard describes a method of estimating the quantity of long-chain, non-esterified fatty acids which are liberated by the action of lipase during the storage of milled cereal products. It therefore provides a sensitive and significant test to characterize the state of conservation and the utilization values of these products.

The solvent used for the extraction, 95 % ethanol, breaks all the low-energy links where fatty acids are involved, and solubilizes the latter rapidly and quantitatively, with the exclusion of the major part of amino acids and mineral salts.

Observation of the colour change at the endpoint of the titration is facilitated by the absence of turbidity in the solution and by the use of a filter that eliminates the yellow coloration of the extract.

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Milled cereal products — Determination of fat acidity

1 Scope

This International Standard specifies a method for the determination of the "fat acidity" of milled cereal products. It is applicable to flours and semolinas obtained from wheat and durum wheat, and also to pasta.

NOTE This method appears to be applicable also to grains, to flours and semolinas obtained from maize, and to rye flour and oat flakes, but a further interlaboratory test is necessary before confirming this extension of the field of application.

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 712:—1), *Cereals and cereal products — Determination of moisture content — Routine reference method.*

3 Definition

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

3.1

fat acidity

conventional term used to express the quantity of acids, essentially non-esterified fatty acids, extracted according to the procedure described in this International Standard

NOTE Fat acidity is expressed in milligrams of potassium hydroxide per 100 g of dry matter. It can also be expressed in milligrams of sodium hydroxide per 100 g of dry matter (see clause 11).

1) To be published. (Revision of ISO 712:1985)