



# SLOVENSKI STANDARD SIST EN ISO 11214:1998

01-november-1998

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**Modificiran škrob - Določevanje karboksilnih skupin v oksidiranem škrobu (ISO 11214:1996)**

Modified starch - Determination of carboxyl group content of oxidized starch (ISO 11214:1996)

**iTeh STANDARD PREVIEW**

Amidon modifié - Dosage des groupes carboxyles dans l'amidon oxydé (ISO 11214:1996)

[SIST EN ISO 11214:1998](https://standards.iteh.ai/catalog/standards/sist/924f824b-c991-4092-ae17-1a3af12ca1a/sist-en-iso-11214-1998)

Ta slovenski standard je istoveten z: **EN ISO 11214:1996**

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**ICS:**

67.180.20      Škrob in izdelki iz njega      Starch and derived products

**SIST EN ISO 11214:1998**

**en**

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EUROPEAN STANDARD

EN ISO 11214

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 1996

ICS 67.180.20

Descriptors: see ISO document

English version

**Modified starch - Determination of carboxyl group  
content of oxidized starch (ISO 11214:1996)**Amidon modifié - Dosage des groupes carboxyles  
dans l'amidon oxydé (ISO 11214:1996)Modifizierte Stärke - Bestimmung des  
Carboxylgruppengehaltes von oxidierter Stärke  
(ISO 11214:1996)**(standards.iteh.ai)**[SIST EN ISO 11214:1998](https://standards.iteh.ai/catalog/standards/sist/924f824b-c991-4092-ae17-1a5af12ea1a/sist-en-iso-11214-1998)<https://standards.iteh.ai/catalog/standards/sist/924f824b-c991-4092-ae17-1a5af12ea1a/sist-en-iso-11214-1998>

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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

Page 2  
EN ISO 11214:1996

## Foreword

The text of the International Standard ISO 11214:1996 has been prepared by Technical Committee ISO/TC 93 "Starch (including derivatives and by-products)" in collaboration with CEN/CS

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 January 1997, and conflicting national standards shall be withdrawn at the latest by January 1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of 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 11214:1996 has been approved by CEN as a European Standard without any modification.

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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 1666	1973	Starch - Determination of moisture content - Oven-drying method	EN ISO 1666	1994
ISO 3696	1987	Water for analytical laboratory use Specification and test methods	EN ISO 3696	1995
ISO 3946	1982	Starches and derived products - Determination of total phosphorus content - Spectrophotometric method	EN ISO 3946	1994

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INTERNATIONAL  
STANDARD

**ISO**  
**11214**

First edition  
1996-07-01

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**Modified starch — Determination of  
carboxyl group content of oxidized starch**

**iTeh STANDARD PREVIEW**  
*Amidon modifié — Dosage des groupes carboxyles dans l'amidon oxydé*  
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[SIST EN ISO 11214:1998](https://standards.iteh.ai/catalog/standards/sist/924f824b-c991-4092-ae17-1a5af12eaa1a/sist-en-iso-11214-1998)

<https://standards.iteh.ai/catalog/standards/sist/924f824b-c991-4092-ae17-1a5af12eaa1a/sist-en-iso-11214-1998>



Reference number  
ISO 11214:1996(E)

**ISO 11214:1996(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 11214 was prepared by Technical Committee ISO/TC 93, *Starch (including derivatives and by-products)*.

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

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International Organization for Standardization  
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# Modified starch — Determination of carboxyl group content of oxidized starch

## 1 Scope

This International Standard specifies a method for the determination of the carboxyl group content of oxidized starch.

The method is suitable for determining carboxyl group contents up to 1 % (*m/m*).

by adding a mineral acid to a homogenized test portion of the oxidized starch.

The cations and the excess acid are eliminated by washing with water.

The washed sample is gelatinized and titrated with sodium hydroxide standard solution.

For oxidized potato starch, the result is corrected for the phosphate group content.

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## 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 1666:—<sup>1)</sup>, *Starch — Determination of moisture content — Oven-drying method*.

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

ISO 3946:1982, *Starches and derived products — Determination of total phosphorus content — Spectrophotometric method*.

## 3 Principle

The carboxyl groups are converted into the acid form

## 4 Reagents and materials

Use only reagents of recognized analytical grade, unless otherwise specified, and water complying with grade 2 in accordance with ISO 3696. The water used shall be free of carbon dioxide.

**4.1 Hydrochloric acid**, 0,1 mol/l solution.

**4.2 Sodium hydroxide**, standard volumetric solution,  $c(\text{NaOH}) = 0,1 \text{ mol/l}$ , free of carbon dioxide.

**4.3 Phenolphthalein in ethanol**, 1 g/l solution, 90 % (V/V).

**4.4 Silver nitrate**, 10 g/l solution.

## 5 Apparatus

Usual laboratory apparatus and in particular the following.

**5.1 Beakers**, of capacity 100 ml and 600 ml.

**5.2 Magnetic stirrer**.

1) To be published. (Revision of ISO 1666:1973)