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Rice - Determination of amylose content - Part 2: Routine methods (ISO 6647-2:2015)

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NATIONAL FOREWORD

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See Eesti standard EVS-EN ISO 6647-2:2015 sisaldab Euroopa standardi EN ISO 6647-2:2015 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 6647-2:2015 consists of the English text of the European standard EN ISO 6647-2:2015.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 20.05.2015.	Date of Availability of the European standard is 20.05.2015.
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ICS 67.060

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 6647-2

May 2015

ICS 67.060

Supersedes EN ISO 6647-2:2007

English Version

Rice - Determination of amylose content - Part 2: Routine methods (ISO 6647-2:2015)

Riz - Détermination de la teneur en amylose - Partie 2: Méthodes de routine (ISO 6647-2:2015)

Reis - Bestimmung des Amylosegehalts - Teil 2: Routineverfahren (ISO 6647-2:2015)

This European Standard was approved by CEN on 7 February 2015.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN ISO 6647-2:2015) has been prepared by Technical Committee ISO/TC 34 "Food products" in collaboration with 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of an identical text or by endorsement, at the latest by November 2015, and conflicting national standards shall be withdrawn at the latest by November 2015.

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

This document supersedes EN ISO 6647-2:2007.

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Endorsement notice

The text of ISO 6647-2:2015 has been approved by CEN as EN ISO 6647-2:2015 without any modification.

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 34, *Food products*, Subcommittee SC 4, *Cereals and pulses*.

This second edition cancels and replaces the first edition (ISO 6647-2:2007), of which it constitutes a minor revision.

ISO 6647 consists of the following parts, under the general title *Rice — Determination of amylose content*:

— *Part 1: Reference method*

— *Part 2: Routine methods*

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Rice — Determination of amylose content —

Part 2: Routine methods

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1 Scope

This part of ISO 6647 specifies a simplified routine method for the determination of the amylose content of milled, non-parboiled rice in the range from 1 % to 30 %. Rice samples for which the amylose content has been determined by the reference method size exclusion chromatography (SEC) are used as standards to generate the calibration curve.

NOTE The use of standards calibrated by SEC is an approach to determine the true amylose content and decreases the conversion errors of this part of ISO 6647.[1]

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 6647-1, *Rice — Determination of amylose content — Part 1: Reference method*

ISO 7301, *Rice — Specification*

ISO 8466-1, *Water quality — Calibration and evaluation of analytical methods and estimation of performance characteristics — Part 1: Statistical evaluation of the linear calibration function*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6647-1 and ISO 7301 apply.

4 Principle

Rice is ground to a very fine flour to break up the endosperm structure in order to aid complete dispersion and gelatinisation. A test portion is dispersed in sodium hydroxide solution, then an aliquot is mixed with iodine solution. The absorbance, at 620 nm or 720 nm of the colour complex formed, is then determined using a spectrophotometer.

The amylose content of the sample is then read from a calibration graph, which is prepared using rice samples with known amylose content, determined using the reference method (see ISO 6647-1).

NOTE Rice samples with certified amylose content according to ISO 6647-1 are used as standards.

5 Reagents

All the reagents used shall be of recognized analytical quality and the water used shall be distilled, or demineralised water, or water of equivalent purity.

5.1 Ethanol, 95 % (v/v).

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